The London SME Fund

Ex-Ante Assessment

Annexes

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London SME Fund of Funds – Project Summary Updated March 2019

Applicant	SME Wholesale Finance London Ltd (SMEWFL)
Investment Priorities	3A - Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators. 3C - supporting the creation and the extension of advanced capacities for product and service development. 3D - supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes
Total Project Costs	£100,000,000 comprising: - £50,000,000 EIB - **£35,000,000 ERDF** - £5,600,000 LWARB* - £9,400,000 Legacy Funding *London Waste and Recycling Board
LEP Areas covered	London
Description	The project is to set up a fund of funds (FoF) that will provide loan and equity finance to SMEs in London. Once established, the FoF will allocated funding to four sub-funds that will invest in SMEs operating in sectors that are important in enhancing London's competitiveness, including the emerging circular economy. The four sub-funds will be: - **£45m Venture fund**: this will provide equity investments between £100k and £2m for SMEs, including those in the circular economy. - **£27.5m Loan fund**: this will have an investment range of £100K to £500K and will support SMEs seeking debt facilities to expand their business.

	- **£27.5m Mezzanine Fund**: this will support SMEs seeking expand their business but have larger funding requirements of between £500k and £1m. - The FoF will be established and managed by SME Wholesale Finance London Ltd (SMEWFL), which was set up in 2004 by the GLA specifically to carry out such functions. SMEWFL will procure organisations to set up and manage the three sub-funds.
Key Milestones	**Start Date of Fund of Funds**: July 2018 **Sub-funds Procurement Completed:** April 2019 **Possible Fund Launch:** May 2019 **ERDF Financial Completion Date**: 31 December 2023 **ERDF Practical Completion Date**: 31 December 2023 **End of Investment Period:** 31 December 2023 **Fund End Date:** 31 December 2028 (10 years from sub-funds' procurement)
Key Outputs	C1 - Number of enterprises receiving support: 170 C3 - Number of enterprises receiving financial support other than grants: 170 C5 - Number of new enterprises supported: 21 C7 - Private investment matching public support to enterprises (non-grants): £168.8m C8 - Employment increase in supported enterprise: 3,562

European Union
European Regional
Development Fund

Ex-Ante Assessment Completeness Checklist

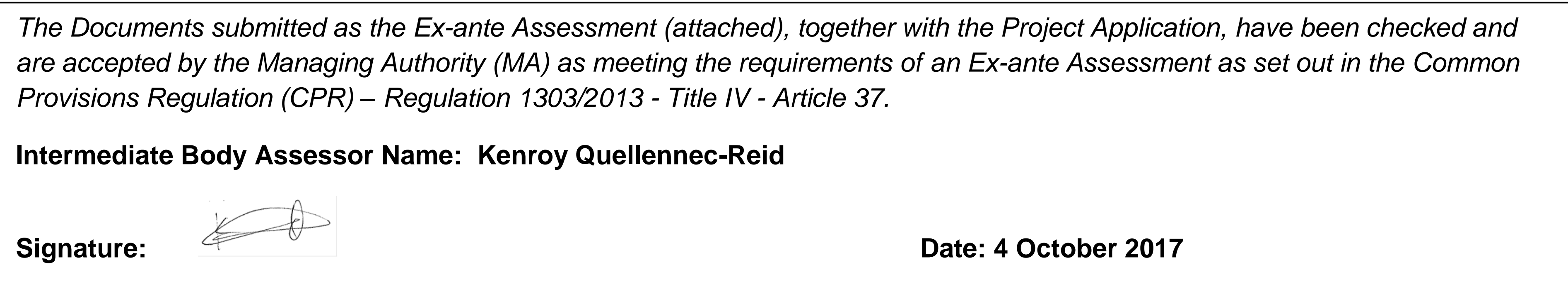
Financial Instrument: London SME Fund of Funds

The Ex-Ante Assessment has been considered and adequately covers the following:		
Key checklist points	**CPR Ref**	**Yes/No**
Identification of market problems existing in the country or region in which the FI is to be established	Article 37 (2) (a)	Yes - see Block 1 report and as summarised in Block 2 (section1.1). See also section 5 of Circular Economy (CE) report.
Analysis of the gap between supply and demand of financing and the identification of suboptimal investment situation	Article 37 (2) (a)	Yes – as above.
Quantification of the investment (to the extent possible).	Article 37 (2) (a)	Yes – as above.
Identification of the quantitative and qualitative dimensions of the value added of the envisaged FI.	Article 37 (2) (b)	Yes – see section1.4.1 of Block 2 report. In addition, see section 9 of the CE report.
Comparison to the added value of alternative approaches.	Article 37 (2) (b)	Yes – see section 1.2.1 of Block 2 report and section 9 of CE report.
Consistency of the envisaged FI with other forms of public intervention.	Article 37 (2) (b)	Yes – see section 1.4.3 of Block 2 report and section 9 of CE report.
State Aid implications of the envisaged FI.	Article 37 (2) (b)	Yes – see section1.4.4 of Block 2 report and section 8 of CE report.
Identification of additional public and private resources to be potentially raised by the envisaged FI and assessment of indicative timing of national co-financing and of additionally contributions (mainly private).	Article 37 (2) (c)	Yes – see section1.5 of Block 2 report and section 8 of CE report.
Estimation of the leverage for the envisaged FI.	Article 37 (2) (c)	Yes – see section1.5 of Block 2

		report and section 8 of CE report.
Assessment of the need for, and level of, preferential remuneration based on experience in relevant markets.	Article 37 (2) (c)	Yes – considered at section 1.4.1.2 of the Block 2 report and
Collation of relevant available information on past experiences, particularly those that have been set up in the same country or regions as the envisaged FI.	Article 37 (2) (d)	Yes – see section1.3.1 of Block 2 report and section 7 of CE report.
Identification of main success factors and/or pitfalls of these past experiences.	Article 37 (2) (d)	Yes – see section1.3.2 of Block 2 report and section 7 of CE report.
Using the collated information to enhance the performance of the envisaged FI (e.g. risk mitigation).	Article 37 (2) (d)	Yes – as above.
Definition of the level of detail for the proposed investment strategy (maintaining a certain degree of flexibility).	Article 37 (2 (e)	Yes – see section1.2 of Block 2 report and section 8 of CE report.
Definition of the scale and focus if the FI in line with the results of the market assessments and value added assessment.	Article 37 (2) (e)	Yes – as above.
Selection of the financial product to be offered and the target final recipients.	Article 37 (2) (e)	Yes – see sections 1.2.2 and 1.2.3.2 of Block 2 report, section 8 of CE report and supplementary work document.
Definition of the governance structure of the FI.	Article 37 (2) (e)	Yes – see section 1.2.3.2 of Block 2 report and section 9 of CE report.
Selection of the most appropriate implementation arrangement and definition of co-financing structure (including any envisaged combination with grant support).	Article 37 (2) (e)	Yes – see section 1.2, section 9 of CE report and supplementary work document.
Set up and quantification of the expected results of the envisaged FI be means of output indicators, result indicators and FI-performance indicators as appropriate.	Article 37 (2) (f)	Yes – see section 1.6 of Block 2 report, section 10 of CE report and supplementary work document.
Specification of how the envisaged FI will contribute to deliver the desired strategic objectives.	Article 37 (2) (f)	Yes – see sections 1.4.2 and 1.6 of Block 2 report sections 4,8 and 10 of CE report.
Definition of the monitoring system in order to efficiently monitor the FI, facilitate reporting requirements and identify any improvements areas.	Article 37 (2) (f)	Yes – see sections 1.7.1 of Block 2 report and section 9 of CE report.
Definition of the conditions and/or the timing in which a revision or an	Article 37 (2) (g)	Yes – set out in section 3 of the

update of the ex-ante assessment is needed.		Block 2 conclusion document and sections 8 and 9 of CE report.	
Ensure that the flexibility, and trigger points, is reflected in the monitoring and reporting provisions.	Article 37 (2) g)	Yes – see section 9 of CE report.	
Following Issue of Funding Agreement:		**Target Date:**	**Actual Date:**
The Ex-Ante Assessment is submitted to the monitoring committee (GPB) for information purposes and in accordance with Fund specific rules.	Article 37 (3)	October 2017	
Publication of summary findings and conclusions of the Ex-Ante Assessment within three months of their date of finalisation (Publication on MA Website)	Article 37 (3)	November 2017	

Comments: N/A



The Documents submitted as the Ex-ante Assessment (attached), together with the Project Application, have been checked and are accepted by the Managing Authority (MA) as meeting the requirements of an Ex-ante Assessment as set out in the Common Provisions Regulation (CPR) – Regulation 1303/2013 - Title IV - Article 37.

Intermediate Body Assessor Name: Kenroy Quellennec-Reid

Signature:

Date: 4 October 2017

Using Financial Instruments for SMEs in England in the 2014-2020 Programming Period

A study in support of the ex-ante assessment for the deployment of EU resources

Block One – summary findings

Final Report

January 2015

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Version	Date issued	Scope
Version 1	4-12-14	Includes first full drafts of Sections 1, 3, 4, 5, 6, 7, 8 and 9. Excludes 2 (policy), regional overviews, lessons learnt, additional resources and overall conclusions
Version 2	19-12-14	Addresses EIB comments on v1 Adds sections on policy, lessons, added value Moves area assessment framework to just before the area profiles.
Version 3	13-01-15	Updated conclusions and addition of section 11 and area overview annex (separate document)
Version 4	6-02-15	Amended for comments from DCLG GDTs, BBB and BIS

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Glossary of Terms

Beneficiary	A public or private body responsible for initiating or both initiating and implementing operations; and in the context of State Aid schemes, the body which receives the aid; and in the context of financial instruments it means the body that implements the financial instrument or the fund of funds as appropriate
Business Angels	Individuals who make equity investments in businesses in their early stage with long term growth potential. Typically risk investment
Early-stage capital	Equity based investment which is typically made in pre-revenue or other young businesses
Final recipient	A legal or natural person receiving financial support from a financial instrument
Financial instrument	European Union measures of financial support provided to address one or more specific policy objectives of the Union. Such instruments may take the form of equity or quasi-equity investments, loans or guarantees, or other risk-sharing instruments, and may, where appropriate, be combined with grants
Fund of funds	An overall fund set up with the objective of contributing support from a programme or programmes to several financial instruments
Funding agreement	Contract governing the terms and conditions for contribution from ESIF programme to financial instruments. This will be established between a Managing Authority and the body that implements the financial instrument
Fund managers	Refers to the firms appointed to manage an investment fund, making loans and equity investment with SMEs and managing the portfolio on an on-going basis or to the point of closure
Holding Fund	The body which is set up to oversee a fund of funds, typically receiving and responsible for the ERDF grant, setting the overall investment strategy, and monitoring overall investment, financial and economic impact performance
Loan	An agreement which obliges the lender to make available to the borrower an agreed sum of money for an agreed period of time and under which the borrower is obliged to repay that amount within the agreed time
Leverage effect	In the ESIF context the leverage is the sum of the amount of ESIF funding and of the total additional public and private resources raised divided by the nominal amount of the ESI Funds contribution
Management costs and fees	Management fees shall refer to an agreed price for fund management services provided established via a competitive market process, where applicable. Management costs and fees shall be based on a performance based calculation methodology
Mezzanine finance	A hybrid of debt and equity finance having a higher risk than senior debt and a lower risk than common equity. Also known as quasi- equity, this can be structured as debt, typically unsecured and subordinated and in some cases convertible into equity, or as preferred equity
Local Enterprise Partnerships	Business led partnerships tasked by the UK Government to coordinate economic development in defined local areas
Operation	A project, contract, action or group of projects selected by the managing authorities of the programmes concerned, or under their responsibility, that contributes to the objectives of a priority or priorities; *in the context of financial instruments, an operation is constituted by the financial contributions from a programme to financial instruments and the subsequent financial support provided by those financial instruments*
Pre-match funding	The combination of ERDF with another source of private and/or public sector funding to provide a larger pot of money for investment with SMEs
Venture capital	Relatively high risk post start-up equity based investment

1 Introduction

1.1 Delivery of the ERDF Programme 2014-20

The UK Government is intending to deliver the ERDF programme 2014-20 for England through the Local Enterprise Partnerships (LEPs), alongside aspects of the ESF and EAFRD programmes. The thirty nine LEPs in England are responsible for the development of strategic economic development plans for their areas, as well as defining how they propose to invest the European Union Structural Investment Fund (ESIF) resources to achieve their strategic plans.

The LEPs responsibilities, as set out by the UK Government, for identifying investment priorities extend to determining the use of financial instruments (FIs) to address business competitiveness (and other) objectives set out in the ERDF Operational Programme. However, the development of these proposals is subject to the requirements of Article 37 of the Common Provisions Regulations, which require the Managing Authority to ensure that an ex-ante assessment of any proposed FIs is undertaken, prior to the Managing Authority making programme contributions to FIs.

The European Investment Bank (EIB) has been appointed by the Department for Communities and Local Government (DCLG) to provide analysis and guidance to support the requirements of an ex-ante Assessment. In line with Article 37 and recently published European Commission guidance, the assessment consists of two building blocks and will consequently follow a two stage process. Block 1 consists of a market analysis to inform judgements about the market need and the financing gap, whilst block 2 consists of the development of the investment strategy, delivery approach and management of proposed FIs. EIB is being assisted by Regeneris Consulting and the European Investment Fund (EIF) in carrying out the assessment. This summary report covers block 1 only, with the block 2 work due to commence in February. The full version of the report will be provided upon completion of block 2.

1.2 Block 1: Market Analysis

This block consists mainly of the following analysis:.

- In order to build the strategic framework for FIs, it is necessary to take into account the national, regional and local context underpinning the public sector's involvement in the provision of finance for SMEs. This needs to be informed by a thorough analysis of the demand and supply of finance to start-ups and SMEs, including the identification of market failures or sub-optimal investment situations for which FIs can be appropriate.
- This analysis then informs an assessment of the market gaps and the manner in which these may change over time - a key aspect of the case for public sector intervention. This needs to also be informed by an assessment of the fit and consistency with existing support measures, the consistency with lessons from existing and previous interventions and the ability to secure added value over the current arrangements and value for money.
- Consideration of the lessons learnt for delivery and management and how they will be applied to the new FIs or to the potential continuation of the existing FIs, taking into account also the experience with similar instruments implemented elsewhere.
- Linked to the above, the assessment must also undertake an initial assessment of the appropriateness of different types of FIs and the type and level of financing needed given the market gaps and needs identified. The analysis investigates the complementarity, value added, fit and consistency of the proposed FIs with respect to other public interventions in the same market, e.g. existing grant or publicly supported FIs, including those involving other EU funds. This also involves an assessment of the potential combination of the FIs with grants or other

instruments such as interest rate subsidies or guarantee fee subsidies. All of these tasks will feed into Block Two and will be informed by it in an iterative manner.

- It should also consider the potential to lever in other private and public sector resources, as well as the overall scale of economic results the intervention could achieve, given its underpinning objectives, approach and resources.

1.2 Key Aspects of the Approach

There are a number of challenges in undertaking the assessment which have required a distinct approach. A number of important considerations are noted below.

1.2.1 Assessing the Finance Gap

It is not possible to directly observe or measure the finance gap affecting SMEs or the part of this gap caused by market failure (as opposed to unviable businesses or investment propositions). An assessment of the finance gap therefore needs to draw on a range of sources concerning the demand and supply of finance to SMEs, although the availability of this data is patchy (although improving) and many of these sources are not very well suited to this task. In this way it is possible to use a variety of sources to indicate a range of the potential finance gap.

1.2.2 Spatial Focus of the Assessment

For these reasons, it is necessary that the assessment is focused at an all-England (or in some instances UK level due to the availability of data) and regional level (i.e. NUTS1) within England. Given the availability and robustness of sub national data, it is not realistic or particularly meaningful to undertake this particular assessment at a lower spatial level. However, where it is possible to undertake robust analysis of either demand or supply factors or policy considerations at a lower spatial scale, this has been done in a selective and appropriate way.

It also needs to be borne in mind that the EU is seeking ERDF[1] backed FIs which provide finance to SMEs to have sufficient scale in order to ensure delivery efficiency and effectiveness. The lessons from the previous programming period clearly point to the importance of achieving scale of intervention in achieving this. This points to the need for many (but not necessarily all) LEPs collaborating in the delivery of SME finance FIs.

1.2.3 Involvement of the LEPs and their Partners

Despite the primary focus of the assessment being at a regional level, the assessment has closely involved the LEPs and their partners from an early stage in order to understand the experiences of SMEs locally. This has been achieved through running two consecutive workshops in all regions, which all LEPs were encouraged to attend. This has also helped to ensure that the LEPs have realistic expectations of the assessment and the process has helped all parties to work towards a sensible

[1] In the current programming period all types of ESIF can be allocated to a FI, although we are primarily concerned with ERDF in this assessment. Whilst we often refer to ERDF backed FIs, there is the potential to use other ESIF resources for this purpose.

approach to assessing the case for ERDF backed FIs. Another key LEP role is to advise on where RGF bids and Local Growth Fund deals may be overlapping and potentially overcrowding the market.

There have also been over 100 consultations with business representatives, finance intermediaries, and private and public sector backed finance providers to inform the consideration of demand and supply factors. Careful consideration was given as to how best to target the available resource for consultations in order to ensure it effectively fed into the preparation of a robust evidence base. In some regions this involved the consultants attending additional workshops arranged by local partners in the regions.

1.2.4 Focus of the Assessment

Leaving aside the spatial dimension noted above, the finance market for SMEs can be analysed in various ways, including by the various types of finance and stages of development of SMEs. For the purposes of this report, the assessment has focused upon:

- Finance for microbusinesses – this is defined as businesses with less than 10 employees and covers debt finance for start-ups (but excluding equity for early stages businesses which is covered below), microfinance (typically defined as up to £20-£25,000) and small loans (defined as being up to around £70-£80,000).

- Risk capital for early stage businesses – this category covers pre-start-up and early stage businesses with high growth potential (both pre-revenue and early revenue businesses), which typically require high risk venture capital investment from £0.2m to £2m. These businesses are harder to define in terms of their size – whilst they may be unincorporated, have no employees or have fewer than 10 employees when they are supported, they are distinguished by their potential for rapid growth in turnover and employment terms.

- Debt for established SMEs – this category covers established SMEs (typically with more than ten employees and established for more than two years) which seek to use debt based finance to support relatively low risk growth.

- Risk capital for established SMEs – this category covers established SMEs (again, typically with more than ten employees and established for more than two years) with their aspiration for finance to achieve more rapid growth or major events (such as management succession). This may include a mix of equity and quasi- equity finance.

Whilst this approach to structuring the assessment has a good fit with the focus of the current (and previous) ERDF programme for England, there are inevitable overlaps in this categorisation and the available data does not always neatly fit this categorisation. The analysis in Chapters five to eight highlights any particular issues which need to be noted.

2 Policy Context Summary

2.1 Introduction

This section briefly sets out the range of EU, UK and sub-national policies which are relevant to the conduct of the ex-ante market assessment and the design and delivery of SME finance FIs.

2.2 UK Government Policy

The challenges of the ability of new, growing and established SMEs to secure the finance they require through the markets in the UK has long been recognised[2], accompanied by a good understanding of the market failures and associated demand side reasons for this. There has been a wider range of policy measures put in place to address these issues, with a number of long running initiatives.

The onset of the last recession and the associated financial crisis led to a range of additional interventions being introduced, as well as a commitment by Government to re-examine the causes of the shortcomings in the provision of finance to SMEs and the potential for more effective measures to address them.

The British Business Bank represents a major development in this regard, coordinating an intelligence-led, national and flexible approach which is intended to work alongside the private sector in addressing major market gaps. Major schemes run by the Business Bank which provide debt and equity finance to SMEs include Enterprise Finance Guarantee, Enterprise Capital Schemes, UK Innovation Investment Fund, the Angel Co-investment Fund, and the Business Finance Partnership. The Enterprise Investment Scheme and the Seed Enterprise Investment Scheme are HMRC operated tax relief schemes which aim to encourage private investment in SMEs.

2.2.1 Sub-national Economic Development

LEPs have been given the responsibility of developing economic strategies for their areas, including the use of ERDF and some other ESIF resources. The LEPs have been given clear guidance by DCLG on the design of SME finance FIs where they are seeking to use ERDF, including the importance of achieving scale to ensure efficient delivery, cross boundary collaboration and an underpinning justification.

There continues to be a recognition in UK Government of the role which ERDF backed SME finance instruments can play in addressing market failure and the ability for these to be more closely targeted at specific issues facing SMEs in different geographical areas.

2.3 European Policy

The European Structural and Investment Funds for 2014-20 have ten policy priorities which are intended to be the focus of the Operational Programmes developed for each individual Fund: research and innovation; ICT; business competitiveness; low carbon economy; climate change adaption; environmental protection; sustainable transport; employment; skills; and social inclusion.

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[2] As far back as the MacMillan Report in 1931, and in the Radcliffe (1959), Bolton (1971), Wilson (1979) and Cruickshank (2000), the weaknesses in the provision of debt and equity finance to SMEs has been recognised.

In designing the new ESIFs, and the associated Common Provisions and Fund specific Regulations, the European Commission has the clear intention of ensuring there is a greater concentration of resources on fewer priorities. The selection of which is clearly linked to the economic challenges of the target area, the interventions and instruments implemented should be able to secure more effective impacts and value for money for the EC and Member States, including the development of more effective performance management frameworks.

The European Commission is extending the use of FIs during the 2014-2020 programme period. The ESIF policy framework emphasises the need for more use of financial instruments in 2014-2020, particularly in a context of fiscal retrenchment, across all ESIF priorities. In October 2013 the European Council set a specific target of doubling amounts of ESIF support delivered to SMEs through financial instruments in programme countries. The benefits associated with the use of FIs are viewed by the European Commission to be[3]:

- Leverage of resources and increased impact of ESIF programmes
- Efficiency and effectiveness gains due to revolving nature of funds, which stay in the programme area for future use for similar objectives
- Better quality of projects as investment must be repaid
- Access to a wider spectrum of financial tools for policy delivery & private sector involvement and expertise
- Move away from “grant dependency” culture
- Attract private sector support (and financing) to public policy objectives.

2.3.1 State Aid Rules

New State Aid guidance was issued by the European Union[4] in 2014 covering Regional Aid, RD&I and the most commonly used sections of the new General Block Exemption Regulation (GBER) such as access to finance for SMEs. The updated GBER has a number of implications for SME finance delivered through the new ESIF programmes including:

- Allowing larger amounts of investment per SME and allowing support for MBO (under specific circumstances)
- Requiring lower amounts of private sector leverage required at the level of the deal
- Providing more scope to support mid-caps (up to 500 employees) and in some instances larger companies
- Making fewer distinctions between assisted and non-assisted areas
- Restricting risk capital investment to SMEs which having been operating for more than seven years.

A number of these changes will have implications for ERDF backed FIs, in particular providing them with greater flexibility to invest larger amounts of finance in growing businesses and across geographies. However, the seven year rule will have implications for the extent to which businesses can be supported through risk capital.

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[3] Ibid. Page 4.

[4] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2013:209:0001:0045:EN:PDF

3 The Finance Gap and Market Failures Summary

The current market assessment focuses on the provision of finance to SMEs. The question is whether the market, without public intervention, will provide sufficient, too little or too much finance and, as a result, business growth and wealth creation are constrained. A market failure which results in too little finance being provided will generate unexploited gains from trade – in this case there are loans, equity and other investments which would be profitable to both firms and investors that for some reason are not made.

Market failure in its own right does not provide a sufficient argument for the public sector to intervene. Intervention will generally involve some distortion of markets and reduction in economic welfare (not least through taxation needed to fund it) against which the benefits need to be weighed. **Public intervention to address a market failure in the supply of finance to SMEs may improve economic welfare, but only if the benefits outweigh the costs of the intervention.**

There is extensive and convincing evidence in the literature identifying the existence and nature of market failures in the provision of finance to SMEs. These failures do vary in their nature between firms in different stages of development and types of finance. Although, these are typically structural market failures, their severity can vary across an economy as large and as diverse as England's.

The nature of market failures and the so-called finance gap has important implications for any market assessment which is undertaken. Demand for finance from SMEs rises as the rate of return required from finance providers decreases (e.g. interest rates on loans fall). **There is in principle no effective limit to demand from firms for credit.** In some instances, for example, the public sector has sought to estimate the size of the market for FIs through survey evidence of the numbers of firms seeking or rejected by mainstream finance. This has sometimes been presented as an estimate of the size of the 'finance gap'. This type of analysis has limited practical value in its own right and has the potential to be seriously misleading.

The size of the market of a public sector led FI, is the amount of finance that could be extended by the fund given any level of return sought, but only in those parts of the market in which the private sector will not invest for reasons of market failure. It is therefore highly dependent on the rate of return sought and the specific investment and pricing strategy which a fund may adopt. **The size of the market for a new fund is therefore subject to a large degree of uncertainty.**

Consequently, the existence of firms rejected by mainstream finance providers (due to information failure), whilst clearly a necessary condition, is not a sufficient condition for market failure and therefore for intervention in the market. Evidence of the finance gap and the optimum size of FIs should be drawn from a variety of sources, including very importantly the insight gained from operating these funds in the same or similar markets.

4 UK and Regional Economic Performance and Prospects Summary

4.1 Economic Growth

Economic Growth has recovered since the recession with GDP rising by 1.8% in 2013 and forecasts from the OBR suggesting around 2.7% for 2014. Regional growth measured by GVA per head was estimated at £21,900 for England with London showing the highest and the North East the lowest. Forecasts show strong economic growth in 2015 and 2016 across the selected forecasting organisations, largely due to increased consumer spending. UK growth projections are particularly positive when compared to global projections, with concerns about weak European and Chinese growth.

The overwhelming message from indicators is that there is a strong recovery nationally and that this is likely to continue. There is some regional disparity in the recovery with London performing consistently well in terms of growth and areas in the North appearing to struggle with unemployment and inactivity. Despite these regional disparities, each region is experiencing a strong individual recovery. Looking forward, there is a clear consensus that the UK's recent growth is robust and is showing good signs for the future.

For SMEs the outlook is, as ever, unclear and dependent on many different factors but surveys indicate a steady level of confidence and an overall expectation of growth. This expectation of growth could be the boost that is needed to take up any future slack in the labour market.

4.2 Implications for FIs

Stronger investment, economic growth and employment growth have shifted the economy out of the recession and the recovery is expected to continue in the next two years. Business investment is becoming stronger and is expected to catch up to consumer demand, with tentative signs that established businesses are seeking to implement their previously stalled investment plans and this is feeding through into stronger demand for external finance.

The volume of SMEs has grown, which is likely to **stimulate the demand for external finance** to support working capital requirements and increasingly their growth aspirations. **There has been particularly strong growth in the volume of start-up businesses which has implications for the nature of external finance that will be required in the next two to three years.**

5 Debt Finance for Microbusinesses in England

5.1 Introduction

Microbusinesses are typically defined as being those businesses which employ less than 10 people, while for the purposes of this analysis, a start-up business may be either pre-start up, in the process of setting up or within its first year of operation. These businesses typically have a requirement for very small amounts of finance, including microfinance as well as small loans. This section does not refer to the need of start-ups and young businesses for specialist forms of investment such as seed or early stage venture capital.

Microfinance has been defined by the EU as loans with a value of below 25,000 Euros[5]. Firms in this category tend to share distinctive characteristics:

- Many are self-employed people with no or few employees. The latest UK Department of Business Innovation and Skills (BIS) estimates on the business population show that 78% of private sector businesses in this size category are sole traders and a further 3% have only one employee[6].
- They tend to be focussed on the provision of goods and services primarily to local markets. As such, these firms tend, generally speaking, to be engaged in relatively lower value-added activities and to be skewed towards the provision of local services, often in consumer-facing sectors.

Many of these enterprises do not have growth aspirations or create additional jobs. At the lower end of the scale micro-enterprises are lifestyle businesses. Consequently, many do not require or seek external finance. It is common for self-employed business owners to make use of informal and personal sources of finance (friends and family, credit cards etc.) before seeking finance from external sources. Those that do seek external finance tend to do so in order to fund working capital or fixed capital investment, and to seek £5k or more[7].

Given their characteristics, micro-enterprises seeking external finance face a particular set of issues. Essentially the problems experienced by SMEs in general in obtaining finance are particularly acute amongst microbusinesses and start-ups. They are particularly likely to lack collateral to offer as security against a loan, and they often do not have a track record in running a business. Compared to larger SMEs they sometimes lack the financial and business management and planning skills typically required in order to have a good chance of securing commercial finance. Some individuals who have previously been out of work and are seeking capital to set up a business may also suffer from a chequered credit history. All of these factors increase the actual and perceived risk associated with providing finance to these entrepreneurs.

From the point of view of banks, the costs of administering loans to this class of firms are high relative to the small loan size. Typically the level of risk and average failure rates of the investments cannot be adequately priced through interest rates so as to yield a commercially acceptable rate of return. The consultations and various reports also suggest that the reputational risks to banks from charging the interest rates required to make an acceptable return on capital are too high[8]. It is important to note,

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[5] European Commission (2004) *Microcredit for European Small Businesses*. In practice there is some flexibility on this definition, since this threshold was set 10 years ago.
[6] BIS Business Population Estimates
[7] BIS Small Business Survey 2012.

[8] DWP (2012) DWP Credit Union Expansion Project: Feasibility Study Report

therefore, that even in a well-functioning market, the private sector (i.e. principally banks) tends to avoid providing finance to this class of enterprises for the reasons cited above.

5.2 Demand

5.2.1 Microbusinesses

According to BIS Business Population estimates, there are currently an estimated 4.6 million microbusiness in the UK and 4.1 million in England, representing 95% of the total business base in both areas. Micro-business account for 32% of employment and 18% of turnover in England.

In terms of sectors, as a percentage of total employees a large proportion of microbusiness operate in sectors that service local markets, such as agriculture, and service activities such as personal and leisure services. A large proportion of microbusiness also operates in construction and education.

Not all of these sectors are eligible for ERDF. Sub-sectors within retail, tourism, manufacturing, and business and professional services are ineligible for ERDF backed funding. Using ONS Business Count data[9], this equates to around 26% of microbusinesses in England. There is regional variation in this proportion, with a greater than average proportion of microbusinesses in the North East and Yorkshire and Humber ineligible for ERDF backed funding (32% and 30%). London has the lowest proportion of microbusinesses ineligible for ERDF backed funding, around 21% of microbusinesses.

Microbusinesses uniformly account for close to 95% of the total business base across all of the regions[10]. There are approximately 800,000 microbusinesses in London, more than in any other region, closely followed by the South East where there are approximately 750,000 microbusinesses. The North East has the least number of microbusinesses of 130,000.

The BIS Business Population data only has time-series data at regional level from 2011. However, data at a UK level shows fluctuating but consistently positive annual growth in the number of microbusinesses between 2000 and 2013. This includes an average annual growth in the wake of the financial crisis of 2.9% from 2009 to 2013.

In total there has been net growth over the period 2001-13 of 1.4 million business (+43%), with the rise in microbusinesses as a proportion of the overall business base from 94.3% to 95.4%. If microbusinesses were to continue to grow at this rate, there would be an additional 990,000 microbusinesses across the UK in 2020. **This growth in microbusinesses would, in normal circumstances, be expected to lead to an increase in the demand for external finance amongst these businesses**.

The 2012 Small Business Survey states that 22% of microbusinesses in the UK have sought external finance in the last 12 months, with 7% seeking finance more than once. The mean average amount applied for was £210,000, compared to £364,000 for small business and £1,983,000 for medium sized businesses. The survey also provides reasons for not applying for finance and the barriers to obtaining finance. The main reasons given for not applying for finance were:

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[9] ONS Business Count data differs from BIS Business Population Estimates in that it only includes business registered for VAT/PAYE. However ONS data allows analysis by 4 digit SIC codes, which have been used to define ineligible ERDF sectors.

[10] Based the BIS Business Population (2013) which incorporates microbusinesses not registered for VAT or PAYE. Microbusinesses account for around 40% of the registered business base (i.e. where these businesses are excluded).

- That the businesses did not want to take on additional risk (56%)
- They thought it would be too expensive (52%)
- The uncertainty due to current economic conditions (47%).

Importantly for the assessment of the finance gap, 46% of those that did not apply for finance thought they would be rejected and therefore did not apply. This compares to 43% for small businesses and just 23% for medium sized businesses[11].

The survey found that microbusinesses which *did* seek finance **encountered greater difficulties in obtaining finance** compared to small and medium sized businesses. Two thirds (66%) of microbusiness applicants obtained all that they needed, compared to 71% of small businesses and 85% of medium sized businesses. A little less than a tenth (7%) obtained some but not all of the finance they required, whereas 23% obtained no finance.

5.2.2 Business Starts

In 2012 there were 240,000 new enterprises formed in England, an increase of approximately 30,000 over the previous three years (around 15%). This increase is similar for all regions with a few exceptions. The increase for London over the past three years is 29%, whereas Yorkshire and The Humber (6%), the West Midlands, and the East of England (8%) all experienced an increase significantly below the average.

London had the highest number of start-ups at 65,000 new enterprises in 2012, over 20,000 higher than the South East and double the amount of the other regions. Taken as a proportion of the working population, London still has the most start-ups, followed by the other southern regions. The North East in particular has low start-up rate, less than half the rate of London's both in absolute value and as a proportion of the working population. Indeed, the England wide average start-up rate as a proportion of the working age population falls by 10% when London is removed.

5.3 Supply

5.3.1 Debt Finance

Given the risks and returns associated with microfinance, and the fact that microbusinesses are much less likely to have assets and a track record, this is not a market that high street banks typically operate in without public support or subsidy or the anticipation of developing a long term relationship with a dynamic entrepreneur.

Typically the level of risk and average failure rates of the investments cannot be adequately priced through interest rates so as to yield a commercially acceptable rate of return. The consultations and various reports also suggest that the reputational risks to banks from charging the interest rates required to make an acceptable return on capital are too high. It is important to note, therefore, that **even in a well-functioning market, the private sector (i.e. principally banks) tends to avoid providing finance to this class of enterprises** for the reasons cited above.

[11] Note: Small businesses are defined as those employing between 10-49 people. Medium sized businesses are defined as those employing between 50-249 people.

5.3.2 Personal Finance

Young microbusinesses also make use of a range of other sources to fund themselves, including informal arrangements with friends and family, and personal credit sources such as credit cards. There is less data on these sources, but the SME Finance Monitor does provide data on the use of these sources. The 2014Q2 survey found that:

- 13% of UK sole traders and 22% of those with 1-9 employees use personal credit cards
- 13% of UK firms with 1-9 employees and 6% of sole traders use loans and/or equity from family and friends.

Whilst there is limited data on the average amounts of finance involved, anecdotal evidence suggests that the overall volume of finance accounted for by these sources are substantial.

5.3.3 Community Development Finance Institutions

Community Development Finance Institutions (CDFIs) operate in a range of markets not covered by mainstream banks, including microloans, social enterprises and community loans. The sector is independent and self-regulated, funded by a number of sources including ERDF, local government, national government and donations.

CDFIs have experienced substantial growth in the UK since the 1990s, partly driven by the Phoenix Fund, a UK Government initiative that aimed to support the development of the sector. The sector is still very small in relative terms, with 39 CDFIs providing finance to businesses across the UK. However, in the last year there has been a significant increase in the amount lent to businesses and the number of businesses receiving funds. £52m was lent to SMEs in 2013, an increase of 72% from 2012. This has helped to create over 8,300 new businesses. The Community Development Finance Association (CDFA)[12] reports that the demand for lending has more than doubled since 2012 as the credit crisis reduced the availability from other sources, with the number of enquiries increasing from 12,900 to over 28,000.

The CDFIs have substantial reach in the country, offering both higher value and volume of loans. This has particularly been the case in Yorkshire and the Humber and the North West. According to the CDFA this is largely due to the Business Enterprise Fund (BEF). Established in 2004, the BEF "*supports new and young businesses in West and North Yorkshire with finance when they require it, and operates in some of the most deprived communities in the country*." In the Yorkshire and Humber region, a region with a particularly high penetration rate for CDFI investment, the number of businesses supported increased from 435 to 1,374 between 2011 and 2013.

5.3.4 Credit Unions

Credit unions are mutual organisations set up as community-based organisations for the benefit of a particular group or community that share a common bond (e.g. living or working in a certain area, belonging to a particular organisation). The use of credit unions has been growing strongly in England over the last 9 years, although loan values clearly remain small relative to the overall market.

[12] CDFA (2013) Inside Community Finance

5.3.5 Asset Backed Finance

Asset-backed finance is less relevant to microbusinesses than larger SMEs due to their lack of assets, but it is nonetheless an available option for some. Data from the SME Finance Monitor shows that 10% of UK firms with 1-9 employees make use of leasing or hire purchase. [13]

5.3.6 UK Government Schemes

In response to the identified gap in funding for microbusinesses, a number of national initiatives have come forward in recent years in the UK.

The **Start-up Loans** initiative is a £152 million scheme introduced in 2012 and set to run to 2015. It is targeted at 18-30 year olds in England and aims to help young entrepreneurs to start businesses, by providing them with low cost, unsecured loans (charged at 6 % p.a. over five years), as well as free business planning and access to expert business mentors. In June 2013 the scheme was extended to entrepreneurs of any age and in October 2013 was extended to Wales. As of 2013 10,000 businesses have been backed by Start-up Loans, with £51m having been lent to businesses with an average loan size of £5,700. London and the North West account for over half of the allocated loans, with the rest of the regions accounting for between 6-8%[14].

The **New Enterprise Allowance (NEA)** was set up in August 2011 by the Department for Work and Pensions (DWP). It is designed to support those out of work for six months or more who want to start their own business. The scheme provides beneficiaries with mentoring to help them develop a business plan and provide business advice in the early period of trading. Participants are provided with access to a start-up loan of up to £1,000 and also a weekly allowance worth £1,274 over 26 weeks.

By March 2014, the scheme had resulted in:

- around 2,000 new businesses being set up each month – around 46,000 in total
- 10,610 businesses being started by people aged 50 or over
- 8,590 disabled people starting their own business[15].

5.3.7 Regional JEREMIE Funds and other ERDF Schemes

Provision of microloans has been a focus for some of the key publicly backed initiatives at a sub-national level. Although, the scale of intervention varies across the regions.

Two regional JEREMIE funds have set up specific microfinance funds. The £6.5 million fund in the North East has proved popular with strong demand from microbusinesses and has invested £3.97 million up to September 2014 (61% of the total fund).

The smaller £3 million Micro Loan fund in the North West only started investing in mid 2014 and had made three investments by averaging £36,000 by October 2014. Finance Yorkshire does not run a specific microfinance fund, but these businesses can secure funding through the £27 million Small

[13] Note: Data only available at national level

[14] note: the latest available data provided by the Business Bank shows that by January 2015 £128m had been lent to c. 24,000 businesses

[15] https://www.gov.uk/government/collections/new-enterprise-allowance-campaign

Business Loan Fund which has invested £24 million to date and is understood can make minimum investments of £15,000.

The largest investment in ERDF backed microloans has been in Yorkshire and Humber, primarily through the £37 million CDFI Social Enterprise Fund which had invested just over half its available funds (£18.9 million) by 2014Q2 to 684 SMEs with an average investment of £24,000. The fund started investing in 2011 and will run into 2015. The remaining finance aimed at microbusinesses in the region have been channelled through the Key Fund for SMEs and Social Enterprises. In addition, £2 million in ERDF backed finance has also been invested in the West Midlands through three separate funds.

Table 5.1: ERDF Backed Regional Microloan and CDFI Schemes (£ millions)

	Fund Name(s)	ERDF Grant	Total Investment to Date	Total Lifetime Investment	Time Period
North East	JEREMIE Microloans	2.5	4.0	6.5	2010-14
North West	JEREMIE Microloans	1.5	0.1	3.0	2014-15
South West	South West Micro Credit	0.8	1.1	1.5	2010-15
Yorkshire & Humber	CDFI Soc. Ent. Fund, Key Fund for SMEs & Soc. Ent	20.2	21.5	40.1	2011-15 (CDFI) and 2011-13 (Key)
West Midlands	1830 Small Bus Loans, WS Loan Fund, Stoke & Staffs Bus. Loans	3.0	2.0	6.0	2012-14 (1830), 13-15 (WS Loan Fund & Stoke & Staffs)
Total		**27.9**	**28.6**	**57.0**	

Source: ERDF Monitoring Data to 2014Q2

5.3.8 Local Schemes

There are a large number of public schemes operating at a local level across the country (in some instances using Regional Growth Fund resources), targeting the provision of finance to microbusinesses (either in the form of loans, soft loans or grants). There is no single source which maps all of these schemes out, although the analysis underpinning the area overviews has outlined this provision where the information has been available to the assessors.

5.3.9 Conclusions

The available evidence presented in the literature indicates **the presence and persistence of market failure in the provision of small amounts of finance to start-ups and micro-businesses** in the UK and across its regions. The extensive consultations confirm the presence of this market failure in all regions of England, including **unmet demand in excess of the current private sector and public sector backed provision.**

There is clear evidence from the available surveys that micro-businesses encounter more difficulties in obtaining finance than larger SMEs (owing in large part to a comparative lack of collateral and/or track record). They have also struggled disproportionately in the wake of the financial crisis to secure finance from commercial banks - many are not applying for finance as they assume they will be rejected, and the average size of loan to small businesses has increased, revealing banks' preference for typically larger loans. **These trends are likely to continue, at least in the short to medium term.**

The UK government has invested in a number of schemes to provide finance to start-ups alongside ERDF backed measures. However, while this represents a sizeable investment, the Start-up Loans Fund and New Enterprise Allowance only account for two sections of a far larger market place. While regional

ERDF-and other public sector backed local funds are delivering more across the regions, this is not consistent across England and is fairly modest compared to the potential need caused by market failure.

These points combine to make a **strong case for a continuation of publicly backed investment in micro and start-up finance in the future.** Although the evidence on the precise scale of the overall gap or the finance range where the failure is concentrated is tentative, it suggests that gaps are concentrated around the £5,000 area for microfinance and up to £70-80,000 for small loans.

6 Risk Finance for Early Stage SMEs in England

6.1 Introduction

This section looks at the market for **early stage equity finance** which for the purposes of this assessment includes investment **pre-start-up through to tranches of investment and follow-on as businesses start to secure revenue**. Early stage equity finance is sought by a wide range of ventures but is primarily sought by those characterised as being at least one of the following:

- Technology or science-focussed: a significant proportion of early stage investment is sought by firms operating in medical sciences and medical technology, ICT, electronics and advanced engineering, where investment in research and development pre-start is often required.
- Research-intensive: research commercialised through spin-out firms, commercial licensing deals and joint ventures via universities and large firms forms a significant part of the demand for early stage equity finance, often requiring early stage investment in order to develop a technology, good or service to a point at which they are commercially viable.
- Innovative and growth-oriented: in addition there are early stage firms which are neither R&D nor technology focussed but which are implementing or developing some form of new process, product or service that is likely to see them grow significantly over a relatively short time span.

Each of these types of ventures can require access to external finance during various stages of their development in order to progress through to commercialisation and early growth. Grants can be needed to finance initial development and proof of concept. As the venture moves to a start-up stage significant amounts of up-front cash are required. Since the venture is pre-revenue at this stage, debt finance is generally inappropriate since the enterprise is yet to generate the cash flows required to service debt. Hence, equity investment has a major role to play in supporting ventures at a start-up and early stage to move towards commercialisation and thus to generate benefits for the economy.

These types of ventures at this early stage are typically by their nature high risk propositions, offering the potential for high return. The term "Valley of Death" is often used to describe the period in between a start-up receiving an initial capital injection and revenue generation. At this stage, significant capital and operating expenditure is incurred in setting up operations and hiring staff, whilst revenues are yet to come through. It is at this point that the venture is most vulnerable and when it can be difficult to attract sufficient funding, due to the market failures described in an earlier section, private venture capital funds tend to focus on less risky, larger deals at the later stages. Consequently, there is a role for publicly backed venture capital funds to support firms through this stage in their development.

6.2 Demand

It is in practice very difficult to assess the number of early stage ventures that exist and which require this type of finance. Many early stage ventures are yet to register as businesses and so are not picked up by publicly available datasets. On top of this, data on the stage of development a particular business may be operating at is hard to come by and the types of ventures to which early stage finance flows cut across various sectors.

The GEM data provides measures of the prevalence of entrepreneurial and early stage business activity. As a result it also provides an insight into the likely demand for early stage finance. This shows a stable rate of activity up to 2010 but an increase in 2011 to 2013 which reflects partly an increase in those

entrepreneurs that have been pushed to consider starting a business post-recession as the labour markets tighten. Rates are also found to be higher on average across the Southern regions.

6.2.1 Innovation in SMEs

The extent to which young businesses are innovation active is another indicator, albeit indirect, of the potential need for early stage risk finance. The proportion of UK businesses defined as *innovation active*[16] by the BIS Innovation Survey (2012)[17] stands at around 44%. By business size, small businesses have a lower rate of innovation at 43.1%, compared to medium sized business with a rate of 50%. A fifth (21%) of businesses in the UK introduced new or significantly improved products or processes in 2012, with product innovation 8 percentage points higher than process innovation. Again, compared to medium and large businesses, small business had the lowest rate of both product and process innovation.

6.3 Supply

The supply of early stage finance is divided between research intensive technologies and more generally innovation focussed growth companies. It is not always easy given the data available and the cross over between these investment areas to estimate the scale of these individual sub-markets. Moreover, a significant proportion of financing activity is informal and therefore not picked up in many statistical sources. However, the following analysis provides a strong indication of the market space in which various suppliers are operating and the relative supply of early stage finance across sectors.

Data from the British Venture Capital Association (BVCA) suggests the supply of early stage equity finance has fluctuated notably from year to year. However these fluctuations owe in large part to a relatively small number of very large deals which can skew the data when looked at on an annual basis. For example, there are significant increases in the value of early stage investment in 2000 and 2006 which are not accompanied by corresponding rises in the number of investments made. As such, these stand as clear outliers amongst the longer term trend.

Whilst investment levels follow the economic cycle to some extent, the annual level has typically been within the range £300 to £400 million since 2000 and investment has sustained and indeed grown through the recession and since.

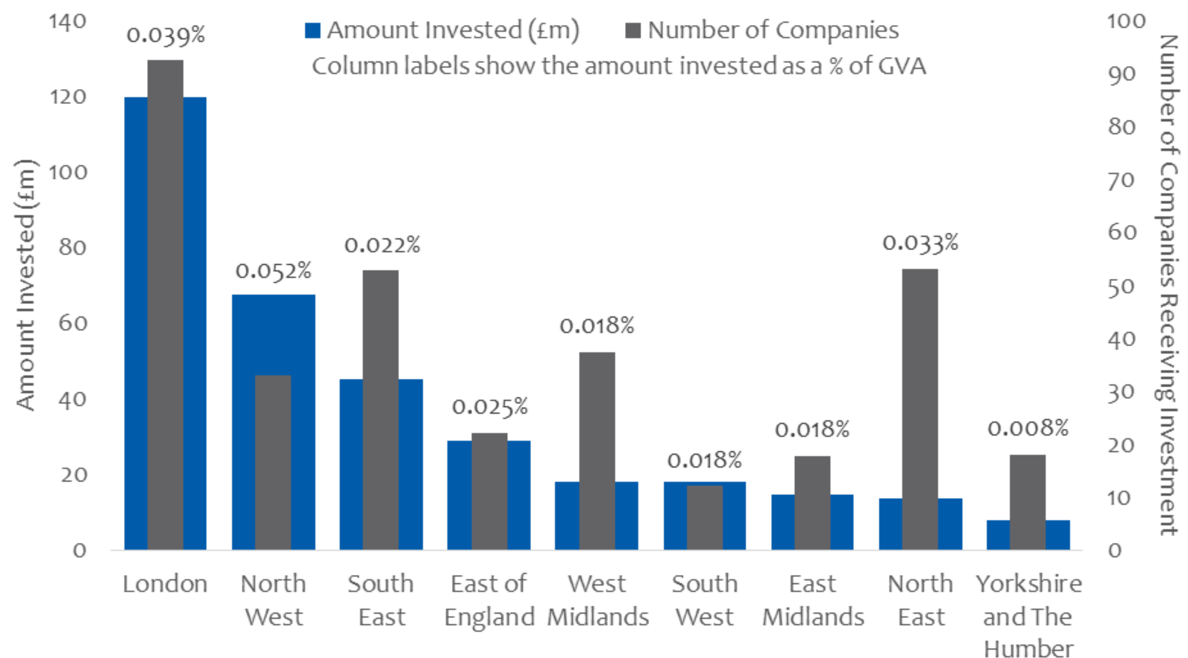
It is important to note that this data is presented in nominal terms and so where the value of investment has remained stable, when adjusted for inflation, a real terms fall is implied. It is also important to note that while BVCA data picks up investment both by private and publicly backed venture capitalists, it excludes significant amounts of angel investor activity.

London and the North West have received the largest amounts of early stage investment in absolute terms compared to other regions in the three years to 2013, reflecting a strong mix of research intensive sectors and strong investor presence in some regards. However, investment of £176 million in the North West in 2013 stands well above the £13 million invested in each of the previous years and it is not likely that this rate of investment can be sustained. While the North East received the second lowest level of early stage investment, when taken as a percentage of annual GVA, this places it third among the

[16] Engaged in either 1) introduction of a new or significantly improved product or process 2) innovation projects not yet complete 3) new and significantly improved forms of organisation, business structures or practices and marketing concepts or strategies.
[17] Data not available for England

regions. Yorkshire and Humber has seen the lowest early stage investment over the last three years – despite registering £15 million in investment in 2012, only £4 million was made in both 2011 and 2013.

Figure 6.1: Early Stage Investment - Annual Average, 2011 to 2013



Source: BVCA Private Equity and Venture Capital Report on Investment Activity, 2012

Venture capital is seen as the main source of funding for high potential, risky early stage firms in key growing sectors such as technology and physical and life sciences. These sectors are often the most innovative and where the largest investment gains are to be made, from advances in science and new technology with potentially wide reaching commercial applications.

6.3.1 Business Angels

Business angels, investing as individuals or as part of a syndicate, are an important source of finance for early stage businesses. Typically they provide finance as firms approach the point of commercialisation, when gains are potentially at their highest.

More than simply providing the finance, many business angels take an active involvement in investee businesses as board members or advisers and can themselves act as an important resource for ventures. Often having set up or managed a business previously, they can hold significant experience in particular sectors and established relationships with potential buyers, suppliers and collaborators.

The Enterprise Investment Scheme (EIS) was set up in 1994 by HMRC and looks to stimulate investment by private individuals, including business angels, by offering tax breaks. The EIS has been designed to encourage investment in higher risk early stage ventures in particular and the British Business Angels Association have recommended even higher rates of tax relief for early stage investments.

HMRC data shows the spread of EIS stimulated investment across the regions and reveals a strong concentration in London and to a lesser degree, the South East. This fits with the messages coming from the discussions with financial intermediaries across the Northern regions in particular, where the presence of business angels is seen as less prominent and scattered when compared to London and the South East.

Data from a survey of 62 business angels conducted by The UK Business Angels Association and Deloitte LLP shows that angels invested more capital in 2013 than in previous years, with the vast majority (83% of all angel capital) invested in early stage ventures and in the digital and internet sectors. London and the South East attracted the most investment, accounting for 54% of all investment, with the South West and the Midlands attracting 13% and 11%.

6.3.2 Crowdfunding

Crowdfunding has been described as "the collective effort of individuals who network and pool their money, usually via the Internet, to support efforts initiated by other people or organisation."[18]

It presents a particular opportunity for many early stage and R&D intensive ventures that may not be able to access finance through traditional sources. Delivering co-ordinated finance alongside others in this way can reduce the risk often associated with early stage investments and allow those investments to progress through developmental stages and towards commercialisation.

There are over 450 crowdfunding platforms and the model through which each operates varies. For instance, Crowdcube allows users to invest small amounts and acquire shares directly in start-up companies whilst Seedrs pools funds to invest in new businesses. Other crowdfunding sites include Crowdfunder and Kuber Ventures.

2014 NESTA research divides the crowdfunding market into three distinct types:

- **Donation-based crowdfunding:** sees investor's pool money with no return, financial or otherwise, expected. The market for donation based crowdfunding grew by 77% between 2012 and 2014. However, in 2014 it accounted for an estimated £2m of the crowdfunding platform, the lowest of any type. The average amount raised in the UK since 2011 is £6,102.
- **Equity-based crowdfunding:** where investors pool to secure equity. Of all of the crowdfunding models, equity crowdfunding is the most tightly focussed toward the early stage market. Equity crowdfunding became a far more established source of finance in the last two years. It has grown by almost 620% to reach £28 million across the UK between 2012 and 2013, and by the end of 2014 is predicted to further increase to £84 million. Furthermore, it has proven elsewhere to be a highly successful model for supplying finance; over the last seven years in Australia 83% of firms receiving it are still in business. This is significantly higher than for firms receiving other sources of finance and high also when considering a significant proportion of firms are likely to be in an early stage of development. Since 2011 the average deal size for an equity based crowdfund campaign is around £199,095.
- **Reward-based crowdfunding:** where investors stand to gain a non-financial return such as goods and services. It has emerged as an innovative means for pre-start up and newly formed businesses to generate finance while undertaking pre-market testing. Reward-based crowdfunding has also emerged as a significant source of finance in recent years. After a substantial increase of around 400% between 2012 and 2013 from £4.2 million to £21 million, it is predicted to increase to around £26m by the end of 2014. Since 2012, the average size of a reward based fundraising campaign is £3,766.

[18] Dylan Jones-Evans (2013) 'Access to Finance Review; Stage 1'. University of Wales.

Government Interventions

There are several major public investments channelling finance towards research and innovation at the UK level:

The £150 million **UK Innovation Investment Fund (UKIIF)** was established in 2009. It uses a fund-of-funds model to channel investment to businesses with high growth potential in priority sectors (including digital technologies, life sciences, clean technology and advanced manufacturing) at all stages of development. The UKIIF has raised additional private investment of £180 million.

The £100 million **Business Angel Co-Investment Fund**, funded by the Regional Growth Fund, set up in 2012 and managed by the British Business Bank invests between £100,000 and £1 million alongside business angel syndicates. In its first year it has delivered £24 million of investment to 18 firms at an average of £1.3 million per firm. Three quarters of this has been leveraged from business angels. It is able to invest up to 49% of any one investment round. Investment decisions are made by the independent Investment Committee of the Fund, based on the detailed proposals put forward by business angel syndicates.

The **Seed Enterprise Investment Scheme (SEIS)** was set up in 2012 and helps small early stage companies to raise equity finance by offering tax reliefs to investors. Investors can receive 50% relief on income tax on up to £100,000 per year as well as exemption from capital gains tax on proceeds from the sale of the investment. Any one company can only raise a total of £150,000 under SEIS. However no detailed data is available to show what the scale of SEIS investment has been.

Innovate UK (previously known as the **Technology Strategy Board (TSB)**) provides seed funding and funding for start-ups and small businesses looking to implement innovative processes or products in order to grow. Funding is delivered through a number of programmes which look to promote collaboration on innovative projects between businesses, public sector organisations and academia, or to deliver funding through competitive application, typically as a grant. In 2014-15 Innovation UK has a £536 million budget, a £96 million increase on 2013.

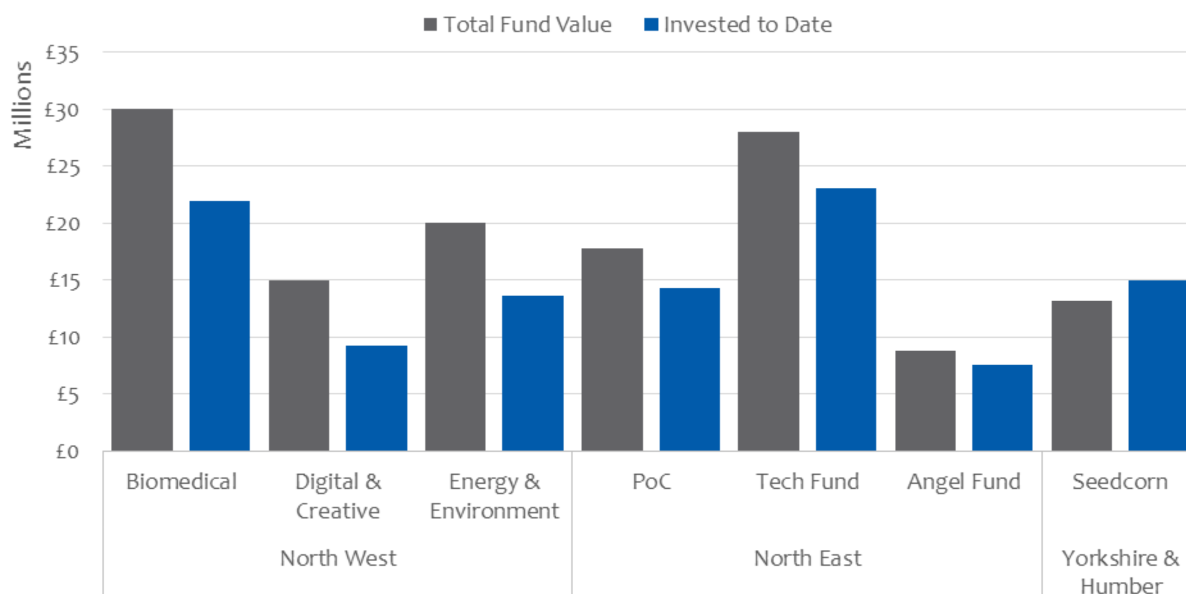
As of October 2014 the UK government has proposed legislation which will require the largest UK SME lenders to forward on details of SMEs they reject for finance to platforms that will help them link up with alternative lending opportunities.

6.3.3 JEREMIE and Other ERDF Backed Projects

ERDF is an additional source of public sector funding for early stage venture capital, although not all English regions chose to use it for such in the last programme period. The regions which have used it include the three northern English regions.

Across the three existing regional JEREMIE funds, more than £134.5 million is being directed through funds providing early stage type investments over the five year investment period. At £65 million, the largest commitment has been in the North West, where three sector specific funds have been set up alongside a larger £30 million venture capital fund (although the latter has more typically invested in later stage deals). To date the three JEREMIEs have invested just over £103 million across these funds collectively. While both having invested just under £45 million each to date in early stage ventures, the North West fund has done so at a faster rate than the North East (£12.8 million annually versus £10.0 million), having started investing around a year later in 2011. The Yorkshire and Humber Seedcorn fund has invested at a rate of £3.75 million annually.

Figure 6.2: Regional JEREMIE Funds, Early Stage Investment to Date against Lifetime Fund Value



Source: Latest JEREMIE Quarterly Progress Reports

Note: for the YH Fund the latest quarterly report made available to us is for June 2014; for NE it is September 2014. The NW Fund has provided a breakdown of investment by sub-fund as of November 2014.

ERDF has also financed early stage investment in some other regions through specific financial instruments, including the East of England through its £44 million Low Carbon Innovation Fund and in the West Midlands through its Advantage Funds.

Table 6.3: ERDF Backed Regional Early Stage Funds (£ millions)

	Fund Name(s)	ERDF Investment	Total Investment to Date	Total Lifetime Investment Target	Time Period
North East	JEREMIE POC, Tech and Angel Funds	20.8	45.0	54.5	2010-14
North West	JEREMIE D&C, Biotech, E&E Funds	32.5	44.8	65.0	2011-15
East of England	Low Carbon Innovation Fund	20.5	43.9	44.2	2010-15
Yorks & Humber	JEREMIE Seedcorn	5.0	13.2	15.0	2011-14
East Midlands	The Lachesis Fund	0.9	2.2	2.2	2009-12
West Midlands	Mercia, Adv.Media Prod, Adv. Early Equity, Adv. Early Growth	10.8	28.5	36.0	2012-15 (Mercia), 09-15 (Media), 10-13 (Early Equity), 10-15 (Early Growth)
Total		**90.4**	**177.6**	**216.9**	

Source: ERDF Monitoring Data to 2014Q2

Note: Funds have been split by finance type but there may be some overlap. For instance, many funds offer a mix of early and later stage or expansion finance as well as a mix of equity, debt and/or mezzanine finance.

6.4 Implications for FIs

Demand for early stage equity finance is hard to gauge with the data that is available. However, measures of entrepreneurial and innovation activity and spend on R&D do provide a good indication of where there is a strong presence of individuals and businesses that are most likely to seek early stage equity finance.

While many of these sources confirm the existence of a strong concentration of activity (and growth in that activity) in London and the South East, they also point to a large proportion of innovation active businesses in the South West, East Midlands and North East when taken as a proportion of the overall business base.

On the supply-side, BVCA data shows the annual level early stage equity investment to have typically been within the range of £300 to £400 million from 2000 onwards and investment has sustained and indeed grown through the recession and since. This said, the data also shows that investors have typically looked to invest larger amounts and consultation with financial intermediaries suggests that **commercial investors remain highly cautious when it comes to the earliest-stage higher risk ventures**. As a result, it appears that this is where the largest gap in finance exists.

The government has created a number of schemes designed to encourage and provide more early stage investment – most notably the UK Innovation Investment Fund, the Angel Co-investment Fund, the Enterprise Investment Scheme and the Seed Enterprise Investment Scheme. These have indeed encouraged notable sums of investment, but have gone only a small way to address the regional imbalances in that supply.

A number of early stage funds have been created under the regional JEREMIE schemes. Demand for these has typically been strong (but slow to build up in some instances) and they have gone some way to addressing the gap for early stage risk finance in these regions.

The assessment suggests a lot of effort and resources in the UK as a whole and across many regions, which has stimulated the demand for early stage funding (although this has been dampened in part by the recession). Whilst the UK Government and a number of regions have put a lot of effort in stimulating private sector provision as well as delivering public sector backed funds both nationally and regionally, **the evidence points to strong demand which is outstripping the supply of finance in a number of regions**. As the economy strengthens **this demand is expected to increase** and many LEPs will need to be able to respond to this through the prioritising and targeting of FIs on this part of the market.

7 Debt Finance for Established SMEs in England

7.1 Introduction

For the purposes of market segmentation, the focus here is **on the requirements of non-micro SMEs** (those employing 10-249 employees as the best measure of an established SME) for **external debt** based finance. However, a definition based on employment or turnover size will capture early stage businesses, although their need for finance will differ. This is reflected in the following analysis as far as possible.

Established SMEs require external finance for a variety of purposes including funding company expansion, renewal or acquisition of new assets and working capital. Loans remain the dominant form of external finance for SMEs, taking the form of term loans and overdrafts. Term loans are suited to firms that have an established trading record - evidenced through demonstrable regular cash flows and profits - and are therefore likely to be able to service regular interest and capital repayments. Term loans are typically used to finance the purchase of capital assets such as machinery, equipment and property. They can also be used to finance working capital, although overdrafts and other instruments (e.g. invoice discounting) are sometimes also appropriate. Overdrafts attached to a current account are generally used to provide a working capital buffer.

As has been widely documented in the academic and Government literature, despite their need for external finance, **established SMEs in the UK experience more difficulties than larger businesses** in accessing bank debt. Lenders prefer to use data on the potential investee's track record and credit rating along with security provided by SME assets to inform their lending decisions in order to reduce risk and avoid costly due diligence procedures. Even established SMEs can struggle to provide the necessary assurances or collateral and hence many struggle to obtain the finance they seek. As highlighted below, these issues have been magnified by the financial crisis and the regulatory pressures on banks.

7.2 Demand

There are no definitive sources of data on demand for debt finance from established SMEs. However, the size of the market can be inferred using data on the business base, along with the results of available survey data regarding the experiences of SMEs.

There are approximately 185,000 established SMEs in England, representing around 4.3% of the total business base. They account for 27% of employment and 30% of turnover in England. There has been an increase of 18,000 established SMEs in the last 3 years since the recession (2011-13).

The latest survey evidence from the BIS Small Business Survey[19] suggests that 24% of <u>all</u> SMEs sought external finance of some form in the previous 12 months, slightly less compared to 2012 (2 percentage points less). Of these seeking finance, a little less than a half (47%) of SMEs had difficulty in securing finance from the first source approached, 4 percent lower than in 2010.

[19] Department for Business Innovation and Skills, Small Business Survey 2012. Note that this at a UK level.

Well over a half (56%) of SMEs that applied for finance stated the main reason was to acquire capital or for cash flow reasons. 23% applied to purchase capital equipment or vehicles. Small and medium sized businesses were more likely than micro businesses to seek finance to acquire equipment or vehicles. Small and medium sized businesses were less likely to seek finance for working capital/cash flow reasons compared to micro-businesses, in part reflecting their more established cash flows. Looking at trends over time, for all SMEs the need for finance for working capital and cash flow has increased by 21 percentage points since 2006 possibly as a consequence of the economic recession and falling turnover. The need for finance for capital equipment or vehicles, to buy land or buildings, and to improve buildings has decreased since 2006 possibly reflecting the stalling of investment plans linked to the deterioration in economic conditions.

For all SMEs, the average amount of finance sought was £294,000, an increase of £57,000 (24%) since 2006 (although a significant part of this increase will be accounted for by inflation). Larger SMEs tended to apply for more finance, with small businesses applying for an average of £346,000 and medium sized businesses applying for £1.98m. The greatest proportion of SMEs applied for £25,000 or less (46% of all SMEs) whereas 11% applied for £250,000 or more. Compared to 2006, over time a greater proportion of SMEs have applied for lower amounts of finance; 32% applied for £25,000 or less and 15% applied for £250,000 or more in 2006.

Assessing the outcome of applications, 16% of small businesses and 8% of medium size businesses[20] were unable to obtain any finance, a fall compared to 2010. A further 5% and 4% of small and medium businesses obtained some finance, but not all that they needed. Overall, overdraft applications were more successful than loans, with 58% of SMEs[21] receiving the offer they wanted and taking it, compared to 39% for loans. This paints a slightly different picture to bank data which suggests a higher drop off in the stock of overdrafts than loans.

In contrast to the BIS Small Business Survey, the SME Finance Monitor provides a regional breakdown of loans and overdrafts[22]. Data is provided on the overall success rate of overdrafts and loans, but also on whether applicants received the offer they wanted and took it, or whether the loan or overdraft was taken after issues[23].

The overall success rate for overdraft applications was higher than that of loan applications in 2013, for all SMEs in England. Looking at trends over time, the number of successful applications for both overdrafts and loans has fallen since 2011. For loans, the proportion of SMEs reporting "issues" before the loan was granted has increased by 9 percentage points since 2011, a greater increase than that for overdrafts (3 percentage points). **For both overdrafts and loans, the proportion of unsuccessful**

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[20] Small businesses are defined as those with 10-49 employees. Medium businesses defined as those with 50-249 employees.

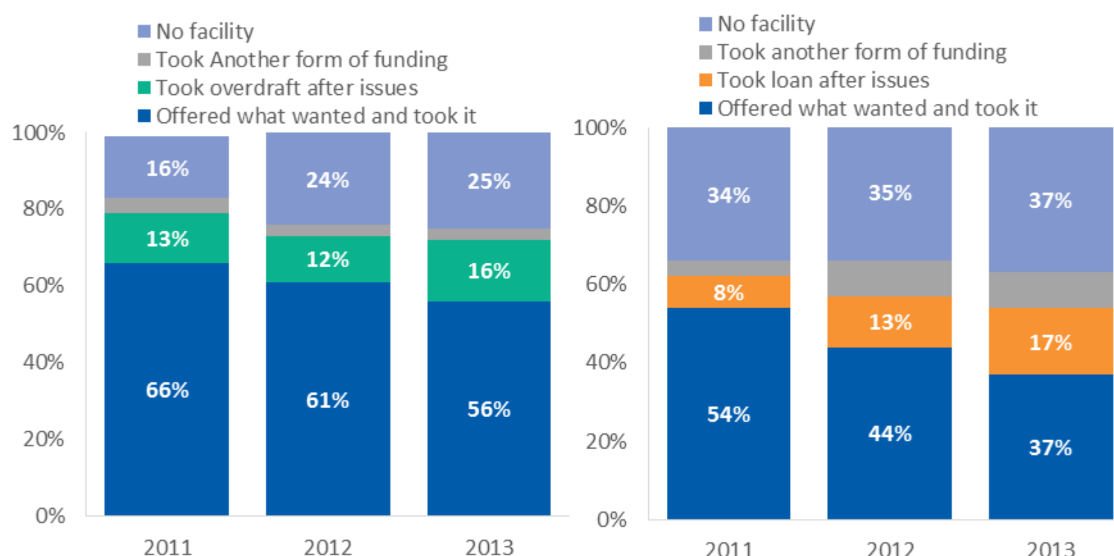
[21] Note that this includes micro-businesses.

[22] BDRC Continental, April 2014. SME Finance Monitor 2013: Annual Report. Note: survey does not provide a breakdown by size of SMEs. For data on applications of loans and overdrafts, data is still being gathered and so figures are based on small samples and should be treated with caution.

[23] "Issues" is defined by BDRC as "something that needed further discussion before a loan or overdraft facility was agreed, typically the terms and conditions (security, fee or interest rate) or the amount initially offered by the bank".

applicants has increased since 2011, reflecting the continuation of very tight credit conditions facing many SMEs in the UK.

Figure 7.1: Outcome of Overdraft and Loan Applications for all SMEs in England - 2011-2013



Source: SME Finance Monitor Annual Report 2011-2013. Note: figures for 2013 are based on small sample sizes and so should be treated with caution

Looking specifically at whether applicants received and accepted the offer they wanted (i.e. took a facility without any issues), 40% of SMEs in London received and accepted the overdraft they applied for, statistically significantly lower than all other regions. For both loans and overdrafts, the rate for SMEs in the West Midlands was statistically significantly higher than rates in other regions. SMEs in the East Midlands had the lowest rate of receiving and accepting the loan offer they wanted. Banks tend to operate in a similar way across the English regions and whilst some of these inter-regional differences may be explained by differences in local demand or supply conditions or behaviour, not all of the differences are statistically significant.

Data from the 2012 Small Business Survey identifies the main reason given for having difficulties obtaining finance[24] was that SMEs did not meet lender's criteria (38%). 9% of SMEs cited a poor credit history which was lower for small and medium business (5% and 4%) than for micro businesses (10%). 15% of medium sized businesses stated having insufficient or no security as a reason, a higher rate than both small and micro businesses. This may be due to the higher amounts applied for compared to smaller and micro businesses, and so a greater importance is placed on security. This information is not available on a robust basis for the regions.

[24] Department for Business Innovation and Skills, Small Business Survey 2012. Note that this at a UK level.

7.3 Supply

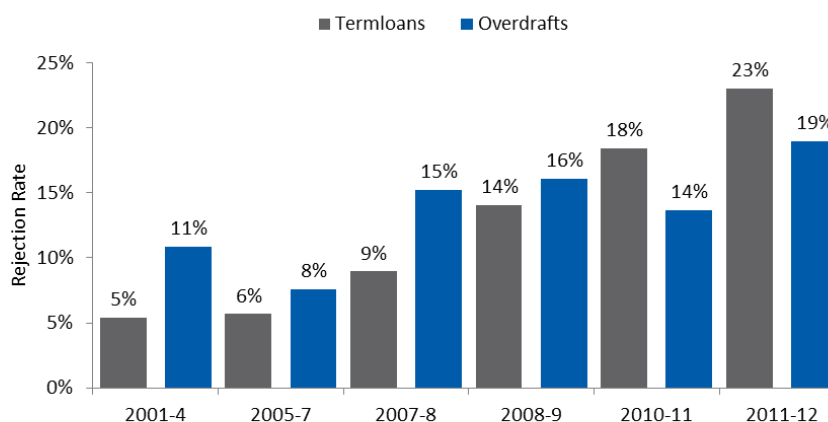
7.3.1 Bank Lending

Overall for England from Q2 2011 to Q2 2014, the total stock of loans to small and medium sized businesses fell by 2%, from £82 billion to £80.5 billion[25]. In 2014, the total stock of loans to small businesses was valued at £29 billion, whereas for medium sized business the total value was £51 billion.[26] This decreased by 0.4% for small businesses, whilst for medium businesses there was a reduction of 2.8%.

In April 2013, BIS published an independent analysis of changes in lending to SMEs from 2001-12, using data from SME surveys. One of the areas examined was rejection rates for applications for bank debt (including new facilities and renewals of existing facilities). Figure sets out the rejection rates over time.

This suggests an upward trend in rejection rates for term loans, supporting the more anecdotal evidence on bank behaviour reported by SMEs and in the press and is consistent with the data on lending to SMEs. The data shows a rise in the rejection rate from around 5% in the period up to 2007-8 to 18% in 2010-11 and then 23% in 2011-12. The rejection rates for overdrafts are more volatile, but they do suggest a rise over this period, albeit a less pronounced rise versus term loans. It is also worth noting here the anecdotal evidence that some banks have purposefully been discouraging SMEs from applying from loans or overdraft renewals, which may skew the official data on rejections.

Figure 7.2: Rejection Rates for Term Loans and Overdraft Applications made by UK SMEs



Source: BIS (2013) Evaluating Changes in Bank Lending to UK SMEs

Another indicator examined in the BIS analysis was banks' margins on their loans and overdrafts. Margins have increased significantly since the financial crisis for both term loans and overdrafts, as banks have been under pressure to repair balance sheets and increase their capital ratios.

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[25] Data from BBA Lending Statistics. Note that small businesses are defined as those that have less than £2m annual debt turnover, whereas medium sized businesses are defined as those that have an annual debt turnover of between £2m and £25m.

[26] According to BBA lending statistics.

7.3.2 Peer-to-Peer Lending

P2P lending is predominantly delivered via online platforms which allow investors to channel funds to investees without going through a traditional financial intermediary such as a bank. Typically investors are able to either select investments directly or are able to select parameters within which they want any investment to be channelled (sector or type of business/project in which the investment will be made, terms of investment etc.).

Across the UK the number of P2P lending platforms and volume at which they are lending has increased significantly in the wake of the financial crisis. Loans totalling £1.6 billion have been made through P2P platforms since 2007/8.[27] In 2014 alone the volume of P2P loans had doubled in the first half of the year. In comparison to bank lending however, this is still a relatively small amount (loans totalling £89 billion have been made since 2011 by high street banks).[28] Thus P2P lending is only around 2% the size of high street bank lending.

7.3.3 Asset Finance

Asset backed finance is an option suitable for financing the purchase of tangible assets such as equipment, plant and machinery. It works through the use of hire purchase agreements (where the firm uses the asset in return for a deposit and interest payments), operating leases (where the lessee borrows the asset, providing periodic rental payments to the lessor) and finance leases (the same as an operating lease but the lessee effectively assumes ownership of the asset). It differs from a straight loan in that the finance is either wholly or predominantly secured on the asset that is being financed rather than other sources of security. Asset finance is provided by specialist finance companies and by departments of banks.

7.3.4 Factoring and invoice discounting

Factoring and invoice discounting or invoice trading are other forms of asset-based finance, secured on the basis of current, rather than non-current, assets (i.e. invoices). A firm can strengthen its working capital position through factoring or invoice-discounting.

At the end of 2013, the Asset-based Finance Association[29] reported that its members had 43,400 UK clients using factoring or invoice discounting, amounting to £18.6 billion in factoring and £236 billion in invoice discounting business. The data show that the use of invoice discounting in particular has been growing since the financial crisis . Initial data from 2014 shows that this trend is likely to continue. This is supported by data from the 2012 Small Business Survey for the UK, which showed that of those firms seeking finance, 6% were seeking factoring or invoice discounting, compared to 3% in 2010 and 1% in 2007/08.

7.3.5 UK Government Schemes

There has been considerable effort on the part of the UK Government to attempt to increase the flow of debt finance to SMEs, in recognition of the critical role that SME finance plays in economic growth

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[27] http://www.p2pmoney.co.uk/statistics/size.htm
[28] According to BBA lending statistics, 2011 - Q2 2014

[29] Note: data available at national level only.

and the constraints experienced in recent years. These interventions have taken a variety of forms, including loan guarantees by the Government to high street banks and reductions in the cost of borrowing for banks.

The key interventions are as follows:

The **National Loan Guarantee Scheme**. Introduced in March 2012 and now withdrawn, this took the form of Government guarantees on unsecured borrowing by banks, enabling SMEs to borrow at a cheaper rate. Banks were expected to pass on the entire benefit to small businesses by offering cheaper loans. Participating banks included Bank of Scotland, Barclays, Lloyds TSB, Lombard, NatWest, RBS, Santander and Ulster Bank.

The scheme was eligible to small and medium sized businesses. Whilst operational, over 28,000 loans had been offered under the NLGS by the banks who signed up to the scheme, making loans with a total value of over £5.2bn at a cheaper rate than they would have otherwise received.

The **Enterprise Finance Guarantee (EFG) Scheme**. Commencing in January 2009, the scheme provides a 75% loan guarantee for lending to SMEs lacking the security or track record for a commercial loan. It is available to SMEs with less than £41 million in turnover on loans between £1,000 and £1m repayable between 3 months and 10 years. The business pays a 2% p.a. pro-rata premium to BIS towards the cost of providing the guarantee and is responsible for 100% of the loan. It is delivered through 46 accredited lenders (including some of the UK's high street banks, Community Development Finance Institutions and invoice finance providers). At its inception the EFG scheme was expected to account for 1-2% of all lending to SMEs. An evaluation was carried out in 2013[30]. The key findings were as follows:

- Additionality: The vast majority (83%) of users indicated that they would not have been able to obtain a loan without EFG, indicating limited duplication of provision elsewhere and a high level of overall additionality. This compares to 70% and 76% found within the 1999 and 2006 evaluations of EFG predecessor, the Small Firms Loan Guarantee scheme. Survey analysis and use of control groups show that businesses receiving finance generated employment and sales growth comparable to other borrowers, indicating that the scheme had the desired effect of removing the barrier to growth presented by poor access to finance.
- Economic Effectiveness: over two to three years the scheme contributed strongly to the local economy, creating 6,500 net additional jobs (around one job per business supported) which has generated £567 million in GVA (£84,400 per business) against an operating cost of £178 million.

Overall in England as of Q3 2014, there have been approximately 22,800 loans drawn with an approximate value of £2.3 billion. In terms of the number of loans, the northern regions dominate in terms of their share, with the North West having the highest number of loans both offered and drawn per 10,000 businesses. Looking at the absolute value of loans, they are higher in the south compared to the north. The North East has a large number of lower value loans, with the average value drawn a quarter of the average value drawn in London.

Funding for Lending was introduced in August 2012, following the National Loan Guarantee Scheme, and is aimed at reducing the cost of credit and boosting the demand for, and supply of, finance to both households and businesses. It allows banks and building societies to borrow at cheaper rates from the Bank of England for periods of up to four years. Participating banks can borrow up to 5% of their stock

[30] BIS 2013, Economic Evaluation of the Enterprise Finance Guarantee (EFG) Scheme.

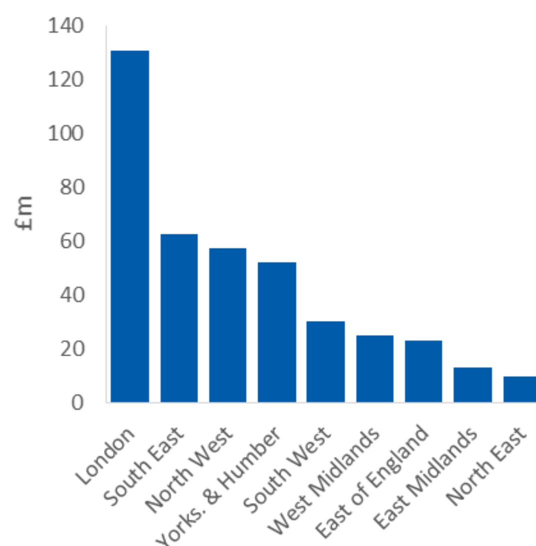
of existing lending to the economy. That is, for every pound of additional lending an institution advances, an additional pound of access to the scheme will be permitted for that institution. For institutions maintaining or expanding their lending the fee will be 0.25% on the amount borrowed.

Evidence picked up from consultations with banks and stakeholders suggests that whilst the scheme has enabled some cheaper loans to be made, the bulk of this has benefited firms that banks would have invested in anyway – it has not had a fundamental impact in opening up loan finance to other firms. Thus the funding has been used as a price discounter, enabling banks to keep existing business, rather than to open up lending to firms on the margin.

In November 2013, it was announced that the scheme would cease to be available to households and would therefore only be available for funding for SMEs. It remains to be seen what impact this will have on lending to SMEs.

The **Business Finance Partnership** is a British Business Bank scheme to make capital available to small businesses in the UK through non-bank lenders (such as peer-to-peer lenders, supply chain finance lenders, asset finance lenders and debt and mezzanine finance funds). The government has invested £1.2 billion in the scheme, with an equal amount matched by private sector investment. The scheme is now closed to new applicants, however the money invested in the scheme is still being lent out. So far, approximately £425 million has been lent out to SMEs in the UK.

Figure 7.3: Business Finance Partnership Lending, English Regions, 2012-2014



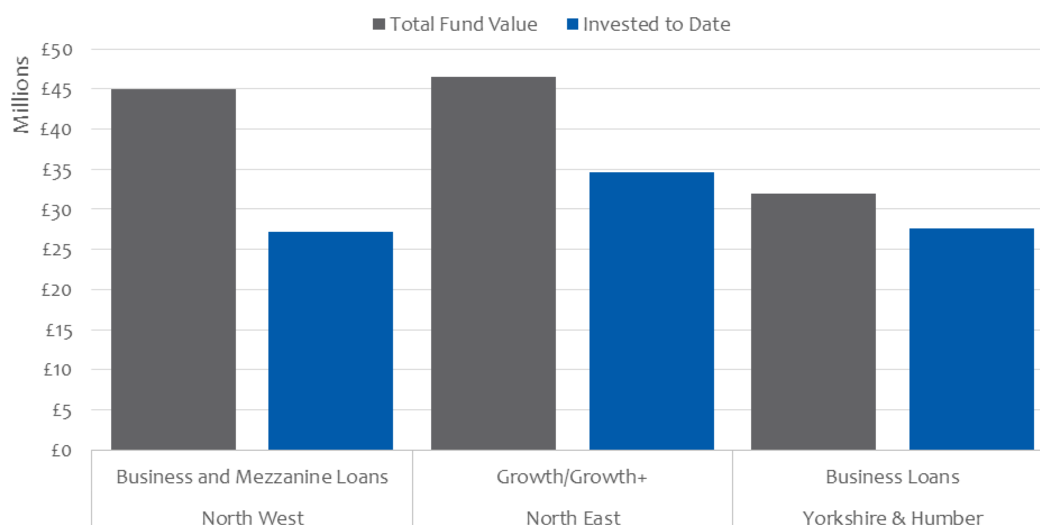
The **Investment Programme** is a new British Business Bank scheme which builds on the Business Finance Partnership to provide capital to existing lenders who lend to small businesses. Around £18 million has been lent to SMEs so far in the UK.

JEREMIE and other publically funded schemes

ERDF is an additional source of financial support for lending to SMEs. Unlike many of the other public sector backed schemes noted above, the initiatives funded through the 2007-13 programmes were spatially targeted.

Each of the current regional JEREMIE funds have invested large amounts in debt finance for established SMEs to date - £89.5 million in total or £23.4 million annually. In Yorkshire and Humber, the vast majority of its business loans fund has been invested in just three and half years.

Figure 7.4: Regional JEREMIE Funds, Investment to Date against Lifetime Fund Value



Source: Latest JEREMIE Quarterly Progress Reports

Note: for the YH Fund the latest quarterly report made available to us is for June 2014; for NE it is September 2014. The NW Fund has provided a breakdown of investment by sub-fund as of November 2014.

No significant ERDF backed debt based FIs have been funded outside of those regions where JEREMIE funds are operating (in part due to the challenges of securing match funding for these particular instruments). The South West Loan Fund has provided the largest scale of finance and investment at £11 million spread over four years but had invested all funds in 2013.

Table 7.5: ERDF Backed Regional Loan Funds for Established Businesses (£ millions)

	Fund Name(s)	ERDF Investment	Total Investment to Date	Total Lifetime Investment Target	Time Period
North East	JEREMIE Growth and Growth +	17.7	34.7	46.5	2010-14
North West	JEREMIE Business and Mezz Loans	22.5	27.1	45.0	2011-15
South West	South West Loan Fund	6.8	11.0	11.0	2009-13
South East	South East Sustainability Loan Fund	2.0	1.7	4.0	2010-15
Yorks & Humber	JEREMIE Business Loans	10.6	27.7	32.0	2011-14
Total		**59.5**	**102.1**	**138.5**	**0**

Source: ERDF Monitoring Data to 2014Q2

Note: Funds have been split by finance type but there may be some overlap. For instance, many funds offer a mix of finance, equity and/or mezzanine finance. Related to this the JEREMIE Growth and Growth+ funds in the North East are also included in Table 8. below.

7.3.6 Implications for Future FIs

The available evidence points to a **marked decline in the provision of debt to established SMEs**, which in part reflects a dampening of demand due to the recession but also a sharp reduction in the availability of finance through the banks as they have rebuilt their balance sheets (shaped by new EU and UK legislation).

While there are signs that the lending behaviour of banks is starting to change, the consensus view from the market and stakeholder consultations is that it will not return to pre-crisis levels in the short to medium term, if at all. **SMEs will continue to face more stringent and demanding tests of their credit worthiness.**

UK Government initiatives have played a role in stimulating increased lending across the English regions in the aftermath of the recession, as have ERDF backed provision in some specific regions. Both traditional and new alternative sources of finance have helped to fill part of the gap left by the changing behaviour of the high street banks, although some of these sources are still modest in scale and not suitable for the riskier parts of this market. New initiatives announced in the Autumn Statement 2014 will help to encourage the growth of these new alternative sources, as well as extending debt based public sector backed schemes to encourage bank lending (such as EFG).

There is strong evidence from the SME surveys of **substantial unmet demand from established SMEs for debt financing and the persistence of market failure across England's regions**. There is evidence that the market failure is less marked above £300k, but this has been impacted by the changing behaviour of banks and is arguably higher now in some locations. This may also vary to some extent between regions, but there is limited evidence of how this varies in practice. Also, as the economy recovers, SMEs are likely to expand and re-invest at an increased rate, stimulating demand for debt.

The implication of this for the design of future funds is that this part of the market has grown in recent years, is likely to continue to grow as the economy strengthens, and that it is likely to persist. **There is a strong case for allocating a higher proportion of resources to this type of finance** (providing there is the flexibility to reallocation is changes in the market require this). Whilst other additional sources of supply are emerging and the overall effect is uncertain, there are good reasons to assume that they will not remove the need for a more active approach on the part of ERDF backed FIs in this part of the market.

8 Risk Finance for Established SMEs in England

8.1 Introduction

Risk capital, also known as development or growth capital, **is a form of finance more suited to established SMEs that are seeking to expand significantly.** It is used by established SMEs to fund a variety of growth activities, including increases in capacity, service and product development, and entry into new markets, as well as major changes in ownership.

Some elements of the finance may come in the form of debt, but here **the focus is on the provision of equity and mezzanine capital.** Typically, as the term suggests, risk capital involves a higher level of risk than term lending. Whilst it is aimed at businesses with an established trading and profits record, there is an element of risk to the growth plans (for example, entering a new market or making an acquisition). The highest risk propositions tend to attract pure equity funding, whilst for less risky proposals mezzanine finance can be appropriate. Mezzanine comes in several different forms and there are various models and definitions used. Often it works through the provision of a loan but with an equity element, so that the investor can share in any upside benefit, but the business does not have to give away as much of its value as in a pure equity deal.

The British Private Equity and Venture Capital Association (BVCA) provides a useful summary of the range of different uses for equity finance – see Table 8.1 below. We have highlighted the role of expansion capital within this.

Table 8.1: Stages of Business Development Suitable for Equity Finance

Venture Capital	Late Stage Venture	Financing provided to companies that have reached a fairly stable growth rate; that is, not growing as fast as the rates attained in the early stage. These companies may or may not be profitable, but are more likely to be than in previous stages of development.
Expansion	Expansion	Sometimes known as 'development' or 'growth' capital, provided for the growth and expansion of a well-established company which is trading profitably. Capital may be used to finance increased production capacity, market or product development, and/or to provide additional working capital.
Replacement Capital	Replacement Capital	Minority stake purchase from another private equity investment organisation or from another shareholder or shareholders.

Source: BVCA Investment Activity Report 2012

There is a substantial literature on failures in the market for equity growth capital. As with debt finance, information failure is again the key issue. Here, rather than a lack of security or track record of the investee, the key issue cited is one of asymmetric information and the related transaction costs. The costs of due diligence associated with the deal process do not vary significantly with the size of the investment. Hence investors tend to focus on larger deals as the transaction costs are proportionally

lower and the rewards higher. This leads to an equity finance gap for those deals that fall below the threshold.

Also the Rowlands Review of Growth Capital in 2009, found evidence that business owners may be averse to giving away a stake in their business, thus reducing demand for growth capital even in situations where it may be appropriate. The review concluded that given these issues there had been a steady movement upwards in the size of deal sought by investors, and that there was a gap for companies looking for anything between £250k and £2m and £10m in growth capital (this is in addition to the finance gap at the seed, start-up and early stage phases). This is bounded at the lower end by the investments by business angels and at the upper end by MBOs/MBIs and private equity transactions.

8.2 Demand

As noted earlier, there are currently an estimated 185,000 established SMEs in England (defined as those employing 10-249 employees), representing around 4.3% of the total business base. Equity finance tends to be suitable for a small minority of firms that have good long term growth potential but a high level of risk associated with their business plans.

The UK wide Small Business Survey found that only 2% of businesses seeking external finance were looking for equity funding, and between 0 and 0.5% were seeking mezzanine (this is likely to include very few firms seeking early stage risk capital). This has been fairly constant over time, according to previous iterations of the survey going back as far as 2006/07.

The need for businesses to secure equity investment linked to management succession is a common issue amongst mature SMEs and the ageing of the workforce will drive greater demand for business succession in the near future. A 2004 study by the Small Business Service[31] highlights that "*one-third of UK SME owners have been identified as 'vulnerable' to age-related transfer failure, and this vulnerability affects an increasing proportion of the SME owners*". Indeed, the latest BIS Small Business Survey for 2012 found that 14% of respondents across the UK were considering transferring ownership of their business over the next five years.

Access to replacement finance is a major barrier to effective succession. Generally, larger businesses (£20m plus turnover) have tended to be able to source the finance they need for their transactions (typically in excess of £5 million in value), as the deals are attractive for private equity companies and debt funders. Smaller firms, however, face more difficulties as existing management teams face difficulties in securing finance due to a lack of, or unwillingness to provide the necessary security required and the transaction values are not attractive to private equity financiers or venture capitalists. With the shift in banks' and venture capitalists' attitude to risk, this has widened the finance gap for these smaller deals.

8.3 Supply

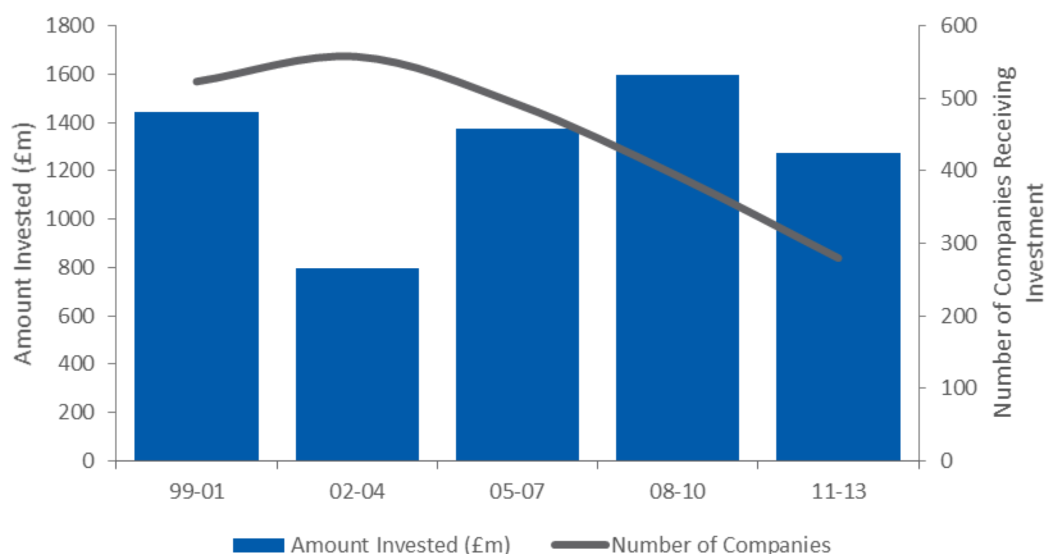
8.3.1 Private Equity Investment

The BVCA collects data on investments made by its members and records the number and value of expansion equity investments by UK region. These figures include both privately and many publicly backed funds. Expansion equity investment in the UK since 1998 has fluctuated substantially over the

[31] Small Business Service (2004). *Passing the Baton: Encouraging Successful Business Transfers.*

period. In the last few years, both the amount invested and the number of companies receiving investment has fallen significantly, particularly after 2008 and the recession from a three year annual average of £1.6 billion between 2008 to 2010 to £1.2 billion for the period 2011 to 2013. This is due to firms scaling back investment plans and cancelling or delaying risky expansion projects until the economy recovers, but also because of higher investment per firm, which is a concentration effect as part of venture capitalists' strategy of managing their risks and costs.

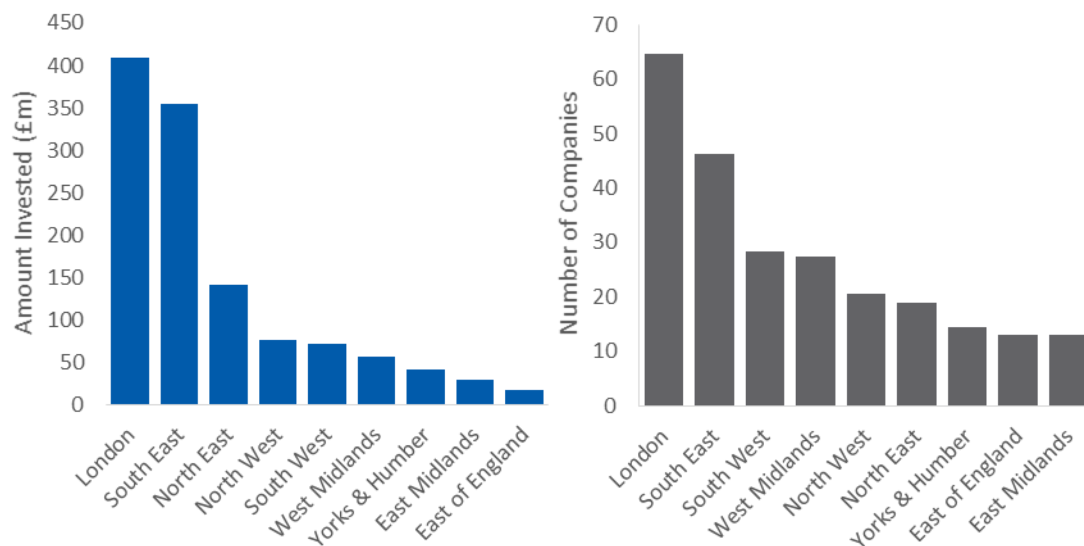
Figure 8.2: Annual Average Expansion Equity Investment in the UK, 1999-2013



Source: BVCA Private Equity and Venture Capital Report on Investment Activity, 2013, 2012 and 2007

Over the period 2011-2013, London and the South East receive the largest average amount of expansion equity investment both in value and in the number of companies receiving investment. This reflects the higher business densities in these regions. The lowest amount of expansion equity investment is in the East of England, with an annual average of only £17 million.

Figure 8.3: Expansion Equity Invested and Number of Companies Receiving Investment, English Regions, Three Year Annual Average 2011 to 2013



Source: BVCA Private Equity and Venture Capitalists Report on Investment Activity 2013

Looking at the level of investment against the scale of the regional economies, the level of expansion equity has been highest in the southern regions, particularly London and the South East, although the North East is the exception[32]. It is evident from Figure 8.3, that there are regions with large economies that are not getting a share of venture capital.

The effect of the recession on the expansion equity market comes into focus when looking at the change in the amount invested. During the recession period (2007-2009), four of the nine regions experienced negative growth in the expansion equity market. From 2010 to 2013, all nine regions experienced negative growth in the market, showing the market has yet to recover. As mentioned earlier, a likely reason for this is that firms have been scaling back investment plans following the recession. For the whole period (2007 to 2013) only in the South West, the West Midlands and the North West has there been positive growth in the amount of expansion equity invested. The largest growth has occurred in the North West, with an increase of £22m from 2007 to 2013. In the South West, it has risen by £23m from £20m to £43 million, whereas in the West Midlands investment has risen by only £2m to £41m.

8.3.2 UK Government Schemes

As well as intervening in the debt market, the UK Government has developed schemes to boost the level of equity investment in the UK. The relevant schemes include:

Enterprise Investment Scheme. Launched in April 2012 by HMRC, this offers tax relief to individual investors to buy equity in small companies. A small company is defined as having fewer than 250 employees and less than £15 million of assets. Individuals can invest up to £1 million in shares and receive

[32] The figure for the North East is heavily influenced by a large amount of expansion equity investment in 2012. Excluding this figure from the annual average, the value for the North East changes to 0.08%, more in line with the England average.

up to 30% of the investment as relief against income tax. Capital gains tax liability on disposal of an existing asset can be deferred if reinvested in EIS shares. Profit on the sales of shares can be exempt from capital gains tax. Losses arising on disposal of shares can be set against income tax as an alternative to being relieved against capital gains tax.

Venture Capital Trust Scheme. This helps small companies (defined as above) to raise equity indirectly through the acquisition of shares in a VCT. Investors in VCTs are eligible for tax relief. Maximum investment in VCT shares is £200,000 per annum. Investors qualify for relief against tax income at 30% of the level invested. Shares must be held by the VCT for at least five years. Dividends from shares are exempt from income tax and there is an exemption from capital gains tax on disposal of shares.

In 2008, The Institute for Employment Studies (IES) undertook econometric analysis on behalf of HMRC to test the effect of both of these schemes on a number of areas of business performance while controlling for other external influences. The results are summarised below:

- Business Type: Investments from VCT in Business Services firms were associated with higher fixed asset formation while both schemes generate higher employment in the sector. Firms operating across multiple sectors generate both higher sales and employment as a result of support received. Firms in 'other services' performed poorly in comparison. Older firms have been better placed to generate higher asset accumulation, employment and profit margins.

- Productivity: EIS investments tended to be associated with lower gearing and higher labour productivity, while significant effect on labour productivity was found among VCT investments.

- Profitability: No significant impact on profits was evident although testing was subject to data limitations.

- Capacity Building: VCT scheme and especially EIS are associated with growth in fixed assets, employment and sales.

Business Growth Fund: Officially launched in May 2011, BGF is Britain's largest investor of equity in established and growing SMEs (typically with a turnover between £10-100m), with £2.5bn of capital available. It is funded by five of the UK's main banking groups and is entirely independent of the government. BGF provides growth capital and typically invests around £2-10m for a minority equity stake and a seat on the directors' board of the company. BGF invests from its own balance sheet and so can offer long term funding, and further funding as the company grows. It has made more than 70 investments, providing over £400m of new capital to UK Companies[33].

The SME finance monitor provides data on the awareness of a variety of support initiatives for SME finance, including The Business Growth Fund. Of all SMEs in England, 15% were aware of fund, higher than the rate for Scotland, Wales and Northern Ireland. SMEs in the East of England were the most aware of the fund (19%), where SMEs in the South East of England were least aware of the fund (10%).

In 2013, the UK government announced policy to allow individual savings accounts (ISAs) to hold shares of companies listed on the Alternative Investment Market (AIM), as well as shares traded on other small company stock markets in Europe. This was designed to stimulate investment in smaller companies and provide a larger pool of funding for growing businesses. The latest data available from the London

[33] Barclays and BGF Entrepreneurs Index Volume Five, November 2014.

Stock Exchange[34] shows that there were 1096 companies listed on the AIM, with 879 of these from the UK. £4.85 billion has been raised in the past year on the AIM.

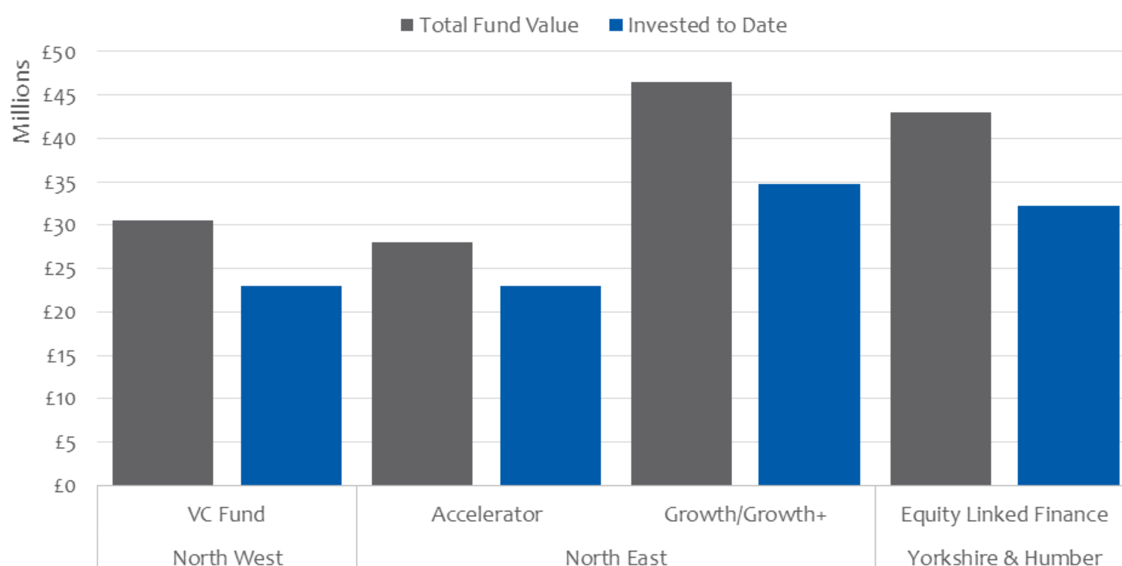
There are other UK level interventions in the early stage equity market, notably the UK Innovation Investment Fund and the Regional Growth Funded Business Angel Co-investment Fund. These are covered earlier in section 6.3.

8.3.3 JEREMIE and Other ERDF Backed Funds

ERDF has been an important source of expansion equity investment in some of the English regions. The largest funds providing this type of finance are operating in the North East, North West and Yorkshire and The Humber.

Almost £150 million is being made available through the three existing regional JEREMIE projects, through sub-funds providing expansion equity (alongside debt). Of this, £105 million has been invested to date – the largest proportion of which has been channelled through the North East fund where two major expansion sub-funds have been created.

Figure 8.4: Regional JEREMIE, Expansion Focussed Sub-Funds: Investment to Date against Lifetime Funds Available, £m



Source: Latest JEREMIE Quarterly Progress Reports
Note: for the YH Fund the latest quarterly report made available to us is for June 2014; for NE it is September 2014. The NW Fund has provided a breakdown of investment by sub-fund as of November 2014.

As is the case for debt finance, there is little in the way of ERDF-backed equity finance FIs for established and expanding businesses outside of the three JEREMIE funds. The largest investment having been the £13.2 million made through the London SME Investment Fund.

Table 8.5: ERDF Backed Regional Expansion Equity Funds (£ millions)

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[34]London Stock Exchange AIM Market Factsheet, 2014 to October.

	Fund Name(s)	ERDF Investment	Total Investment to Date	Total Lifetime Investment Target	Time Period
North East	JEREMIE Accelerator Fund, Growth/Growth+[35]	20.8	45.0	54.5	2010-14
North West	JEREMIE VC & Mezz Fund	32.5	44.8	65.0	2011-15
Yorks & Humber	JERMIE Equity and Yorkshire Content Funds	20.5	43.9	44.2	2010-15
London	London SME Invest. Fund	5.0	13.2	15.0	2011-14
West Midlands	Adv. Growth Equity Fund[36]	0.9	2.2	2.2	2009-12
Total		**90.4**	**177.6**	**216.9**	

Source: ERDF Monitoring Data to 2014Q2

Note: Funds have been split by finance type but there may be some overlap. For instance, many funds offer a mix of finance, equity and/or mezzanine finance.

8.4 Implications for FIs

There is significant existing evidence at the UK level (e.g. Rowlands Review) **of the existence and persistence of an equity gap affecting established SMEs** which are seeking finance to grow or need investment to facilitate succession.

As is the case for early stage venture capital investment there is less evidence available about this finance gap from surveys of SMEs than for debt finance. In the UK, SBS survey suggests around 2% of businesses seeking external finance were looking for equity funding and when this is adjusted for the amounts of finance sought it is likely to be nearer 6-8%.

The evidence suggests that **the finance gap is structural and long term**, but when compared to markets for debt has been less affected by the recession. Much of the impact has been on the demand side, with evidence of firms postponing major investment projects. As the economy picks up, **demand for finance to support larger scale and on balance more risky expansion activity is likely to increase**. However, this is likely to be a steady increase which may take time to build up.

However, some venture capital funds in the regions have withdrawn or moved away from particular types of higher risk investment activity. It is unclear whether this situation is changing as the economy starts to grow again, but the likelihood is that these investors will move back into the market more slowly than they withdrew.

The public sector is active in addressing this equity gap at a national level through the British Business Bank and through ERDF backed interventions which are spatially targeted and concentrated in particular regions. Whilst this provision is important in helping to address the gap, the evidence points to the penetration of these activities being less in the economies more distance from London and the South East.

[35] The Growth and Growth+ Funds provide a mix of finance for established businesses and have also been incorporated into the equivalent table in Section 7 on ERDF-backed provision of Debt for established SMEs.

[36] Or Exceed Midlands Advantage Fund

In terms of the key implications for the design of the future funds, the evidence points to a **persistence (and arguably an increase) in the need for equity finance in the part of the market accounted for by market failure**. However, there is likely to be variations between regions, given underlying variation in demand and supply conditions. There is a lot of uncertainty in this regard and these factors need to be carefully considered at a regional level.

The evidence points to the gap being up to levels of finance between £2-3 million, although this varies to some degree between regions, types of SMEs and the purpose of the investment.

9 Lessons Learnt from Previous Programme Periods

9.1 Introduction

This section examines the lessons which have emerged from the review and evaluation of ERDF backed across England and other parts of the UK, as well as the other parts of European Union where they are directly relevant to development and delivery within England.

Key sources include:

- Evaluations of ERDF backed SME finance FIs, including the mid-term evaluation of the three JEREMIE funds in the North of England[37] and other available evaluations of ERDF schemes funded through the 2007-13 programme (although the number is currently limited) and other selected evaluations from outside England which are judged to be rigorous (including for example the mid-term evaluations of Scottish Enterprise Venture Fund and Seed Fund)[38] [39]
- Meta evaluations of interventions providing finance to SMEs, in particular a review of FIs by the Centre for What Works
- Overarching reviews of the effectiveness of the use of ERDF backed SME financial instruments, including the Court of Auditors[40] and the UK's National Audit Office[41].

Overall, the use of financial instruments to deliver SME finance in the UK has been positive, but there are important lessons both from within the UK and elsewhere in the European Union.

9.2 Justification for the Use of Financial Instruments

Added Value of FIs

The overwhelming evidence from the evidence collected through audits, reviews and evaluations of these financial instruments used to provide finance to SMEs in response to market failure, is that they can be very effective and efficient instruments in achieving their underlying goals. However, they are amongst the most complex ERDF backed instruments, with significant risks if not implemented in a well-planned and delivered in an appropriate manner. The following chapter provides more information on the value added that the instruments can provide, whilst the specific lessons are explored below.

Need to Balance Economic Development and Finance Goals

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[37] Mid Term Evaluation of the English JEREMIE Funds, commissioned by the Holdings Funds, 2013

[38] Economic impact of the Scottish Venture Fund: final report, Scottish Enterprise, 2013

[39] Economic impact of the Scottish Enterprise Seed Fund: final report, Scottish Enterprise, 2013

[40] Title March 2012)

[41] Improving access to finance for small and medium sized-enterprises. Report by the Controller and Auditor General. National Audit Office. 29th October 2013

SME finance initiatives, in general, serve to address both gaps in the provision of finance and a range of economic development priorities including stimulating enterprise, research and innovation, employment and regeneration. There is often a misunderstanding or lack of clarity around these two dimensions to these instruments. In developing new funds, it is important to ensure the relationship between these two dimensions are absolutely clear, as they have a direct and very important influence on ways in which finance is targeted at SMEs and the rates of return which can be expected. The evidence suggests that clarity in these aspects provides a stronger foundation for successful delivery and achievement of the underlying goals. There is merit in using tools such as intervention logic chains to ensure this clarity.

Need to Avoid a Funding Hiatus

Although not specific to the justification for FIs, most of the current ERDF backed venture capital and loan funds will be reaching the end of their investment periods by the end of 2014 although some continue into 2015. Although most LEPs and their local partners which wish to use ERDF backed FIs have been proactive in defining their needs and local priorities, it is important that this progress is continued and that the risk of a hiatus in investment activity is minimised. Some of the current Funds or legacy bodies will be receiving legacy income from previous funds which could be utilised to support investment in the interim period if necessary, but this could divert important resources from other sources.

9.3 Market Assessment and Business Planning

Importance of the Ex-ante Assessments

Drawing on the experience over the last two programming periods, the EC has clearly identified the need for the Managing Authorities to include an ex-ante assessment of the suitability and appropriateness of financial engineering instruments in the new ERDF programme for England. The Court of Auditors has in particular been critical of the shortcomings in defining correctly the financing gap of the beneficiary SMEs when designing the programmes. This aspect of the ex-ante appraisal is important in informing the development of the specific proposals which the LEPs will take forward, as well as the decision making of DCLG and the PMC.

Accounting for Uncertainty

There are few ERDF backed projects where the robustness of the market assessment and business planning is so important to successful delivery. The ex-ante assessment will provide some but by no means all of the information that partners require. This has a number of implications including the need for partners to fill any key gaps which persist following the completion of the assessment and which have a direct bearing in the design of the investment strategy. The other is the need to recognise that the market assessment can only be a guide to the gap which public sector should be using ERDF to address and it is important for flexibility to be built into the design and delivery of the FIs which enable delivery to be adjusted if circumstances change over time.

Rigorous Investment Planning

Related to this, in order to ensure a rigorous business and financial planning process, it is essential that review is built in at key points in the development and implementation of the project (in addition to the contribution which the EIB or other major funders can provide in this regard). This is particularly important earlier in the process when key decisions are taken about the design of the project. It also occurs again through the involvement of major external funders and the procurement of fund

managers, with each stage offering a further opportunity to test underpinning business plan assumptions and deliverability considerations.

Need for Realism

Whilst it is important for SME finance FIs to be of sufficient scale to achieve efficiency and effectiveness in delivery (and this is outlined further below), there is nevertheless the need for realism in terms of the time it takes to set-up schemes and commence investment, as well as the scale of potential demand which exists. Whilst these matters can be tested during the business planning process, it is important to be realistic.

9.4 Fund Design

FI Models

The mid-term evaluations of the current JEREMIE fund of funds model in England and Wales concluded that the approach provides a good model which can and should be replicated in the next programming round. For reasons of efficiency and effectiveness, these funds should in most instances be a minimum of £100m in size (and the EIB has clearly indicated its desire for this to be a minimum investment threshold for funds it invests in). By implication, the funds would need to cover large geographical areas, with sizeable business bases. In most if not all instances, this will require LEP areas to collaborate across their areas, with the merits of the proposed area being clearly justified in market and delivery terms through the business planning process.

The three English JEREMIE funds have established themselves in their northern regions, in terms of valuable skills and expertise, market profile and awareness, and investment infrastructure. There is a very strong rationale for successor funds in these areas building on this expertise and infrastructure, including the ability to develop and implement new funds more quickly and cost-effectively. The recent mid-term of the Northern Ireland fund of funds scheme also supported this conclusion '*We conclude that the implementation of the Fund of Funds model has created a robust, long-term platform for the management of Invest NI's risk capital funds, creating the framework to manage the funds flexibly and to address reinvestment and other opportunities as they emerge*'[42].

The existing JEREMIE funds have tested a range of different approaches delivering investment to SMEs from which partners developing successor funds can learn a great deal. Whilst there will continue to be scope for tailoring these delivery approaches to local circumstances, it is paramount that the preferred approach can be delivered cost-effectively (well within recommended cost norms). The mid-term evaluation and the pan European review of these instruments by the Court of Auditors concluded that adopting more simplified investment, fund management and corporate service strategies and structures is one way of achieving this efficiency. This points to having a maximum of 4-5 funds of a minimum size and not using sector specific sub-funds unless there is a very good case for doing so.

As noted earlier, the proposed mix of sub-funds or finance products within a fund of funds needs to reflect the finance gaps and be shaped in part by the underpinning economic development priorities. However, it is also important that the number and mix ensures:

- That SMEs are able to access the finance they need and have a degree of choice in doing this;

[42] Interim evaluation of Invest NI Fund of Funds, Invest Northern Ireland, June 2014

- The viability of the financial instrument, in terms of servicing the match funding requirements if this is used, early returns to cover holding fund and fund management costs; and
- The scope to deliver sufficient economic development impacts and legacy to provide value for money to the public sector.

There are lots of trade-offs in this regard and project developers need to demonstrate that they have robustly assessed this through the market assessment and their business planning.

Where a fund of funds approach is adopted, there may be a case for delivering small amounts of additional finance to SMEs outside of this FI structure. This could be due to this finance having a risk profile which is not entirely compatible with that the fund of funds, or a preference amongst local partners to adopt a more localised approach. This could include CDFIs targeting social enterprises or start-ups and micro-businesses more generally, for example. Experience from the Northern regions (and Wales and Northern Ireland) suggests this can work in a sensible manner, although there is the need to clear about the rationale for this approach and its effect on the overall effectiveness of delivering the FIs.

Evaluation evidence suggests other delivery models which are not based on the fund of funds approach may be more appropriate in other areas where partners wish to adopt, for example, a smaller scale or more focused approach. The mid-term evaluations of the Scottish Enterprise sponsored Venture Capital and Seed Fund conclude that the co-finance models operate effectively. Potential delivery models will be assessed in more detail as part of the block two phase of the ex-ante assessment.

Cross Area Delivery

Irrespective of which fund model is adopted, if the approach involves collaboration amongst multiple LEPs across a range of economic areas, it is important to consider how the provision will be marketed to and ensure effective take-up and appropriate market penetration spatially. This may require the establishment of local offices in more peripheral areas or other arrangements in order to promote take-up, subject to the cost-effective of the arrangements.

The experience of all four JEREMIE funds in the UK has been that the penetration of the business base can be lower in areas which are more peripheral (e.g. parts of North Lincolnshire in the case of Yorkshire and Humber, and Teesside in the case of the North East).

Match Funding

Project developers need to explore the range of potential options for match funding ERDF contributions into these financial instruments. This will include the EIB, the high street banks, private sector equity, institutional investors and ERDF legacies from previous funds. They need to be able to demonstrate that all reasonable funding options have been considered, clearly set out the reasons for pursuing their preferred matched funding route and justify any preferential returns associated with this.

However, as we note elsewhere in this report, it is important to note that the realistic alternative funding options may be limited in practice, especially if the aim is to secure a large scale fund of funds approach. The co-financing model offers the opportunity implement single finance or fund FIs (e.g. equity funds) in the absence of large scale matched funding, securing much of the necessary match funding at the level of investment in SMEs. Whilst this model is less helpful for debt orientated funds, these have been delivered in a limited number of instances through private sector match funding from high street banks or other institutions (e.g. Invest NI Fund of Funds in Northern Ireland). However, this approach is generally not replicable due to the reluctance of the private sector to match fund these schemes.

Revenue Funding

Unlike for the ERDF backed financial instruments supported in the 2007-13 period, there is no ready source of revenue grant funding which can be used as a contribution towards the set-up and operational costs of the funds. Project developers need to carefully consider the manner in which they can secure the substantial resources (including development expertise) required to develop, set-up and meet the holding fund costs and management fees of these funds. This could include the legacies which have been returned (or predicted to be returned) from previous Single Programme and ERDF backed funds, liaising with the British Business Bank and DCLG respectively (given their responsibilities for the oversight of these respective legacies). They will also need to demonstrate how the operational costs will be funded throughout the fund life and that the associated risks have been carefully considered.

ERDF Draw Down

Unlike the previous programming period, it is now clear the new ERDF guidelines will not allow for the full draw down of the committed ERDF to the successor funds, with capital grant instead being drawn down in tranches in line with investment performance. Project developers must carefully consider the implications of this change in terms of the ability to meet the holding fund and fund management operating costs. They may need to be prepared to vary existing structures if necessary to accommodate this change.

State Aid Considerations

State Aid is an important factor in determining the scope of the funds to invest with SMEs, as it can impose a range of restrictions in terms of the proposed investment strategies. The new General Block Exemption Regulations (GBER 2014) provide some helpful additional flexibility (e.g. finance for SME succession, provision of working capital as part of a finance package), but also imposes a few additional constraints (e.g. limitations on risk capital investment to SMEs over seven years of age). It is important that project proposers are clear on the implications of these changes for their ability to meet the needs of SMEs, but also how it affects the potential demand. The ex-ante assessment may provide some of this intelligence, but by no means satisfy all requirements.

9.5 Delivery of FIs

Need for Flexibility

The involvement of the LEPs in the design and development of the successor funds is an advantage in that it offers the potential to more closely reflect the local needs of SMEs in the design of these funds. However, it also brings potential risks. It is important to avoid undermining the overall flexibility and cost-effectiveness of funds which operate cross border through imposing onerous restrictions or constraints on investment. If localised investment targets are to be set (at a LEP level), they need to reflect the balance of the availability of ERDF resource contribution whilst responding flexibility to the overall pattern of demand.

The fund of funds model provides important flexibility to move resources between sub-funds in response to changes in market need and opportunity and the performance of the sub-funds (as North East Finance has been able to do in its current fund through a retained pot for future deployment). It is very important that all project developers consider how they can secure this flexibility, effecting changes with minimum cost and disruption. The EC's intention of tranching the payment of ERDF into funds will also provide a further opportunity for switching resources to where it is most needed by sub-funds.

Brand Identity

The evaluation of the JEREMIE funds and previous SME finance initiatives has demonstrated the benefits of developing a strong brand identity and coordinated marketing for public sector backed finance advice and provision. Where these brands exist already, the partners involved in designing the new delivery arrangements need to build on these approaches and the awareness where they are proving successful. Where they don't exist, they should pursue consider the merits of these coordinated approaches in collaboration with partners across boundaries, in particular where this may make sense in terms of larger area identities.

Procuring Fund Managers

Securing fund managers who have the appropriate expertise and will deliver high quality fund management services is vital to the success of FIs. Project developers need to be aware of the strict procurement rules, but also have a well-defined strategy which sets out how they will use the procurement process to ensure they secure the skills they need and to deliver value for the funders. This may include building on the expertise and knowledge that already exists amongst Fund Managers in the region and/or drawing in new expertise which is not currently available. A lesson from the North East and North West JEREMIE funds is the creation of a framework panel for fund managers for the larger funds with multiple sub-funds.

Alignment of Public Sector Backed FIs

Proposals for new ERDF backed funds at a sub-national level need to be carefully aligned not only in terms of the finance gap but also the national initiatives under the British Business Bank (including their increased resources announced in the 2014 Autumn Statement). There is a need to ensure complementarity rather than duplication in these activities, although based on the Business Bank's current strategy and the delivery of schemes which operate on a national basis there may be little overlap at the regional level. The potential to join up the marketing of the respective offers across these providers should be exploited, including cross referral where appropriate.

In addition, there is a need to ensure that the funds are aligned with other parts of the local business support network (but also national initiatives delivered locally), especially in terms of providing SMEs with investment readiness and post-investment support. The linkages need to be clearly set out in project proposals.

Performance Monitoring

The European Court of Auditors[43] set out the need for a small number of measurable, relevant and specific performance indicators for financial instruments, covering the investment, financial and economic performance of the programmes. These measures need to be suitable and tailored to the specific characteristics of the debt and equity instruments used, rather than adapted form measures used for grant based initiatives. There is also the need for a considerable degree of consistency in the defining and measurement of these measures within the ERDF programme as a whole, to allow comparability between FIs. The ECA also suggests fixing contractually binding minimum leverage ratios and leverage dispositions for the respective holding fund or funds.

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[43] http://eca.europa.eu/portal/pls/portal/docs/1/13234738.PDF

Similarly, the National Audit Office[44] has in the past been critical of BIS's approach to the setting of objectives and targets for a range of SME finance initiatives in the UK and the basis for monitoring and disseminating progress.

9.6 Management and Governance

The operational management of FIs (as opposed to investment undertaken by fund managers) requires a high level of expertise and a considerable level of resource, especially for the larger and more complex funds (such as the JEREMIE funds). Whilst the approach and extent of the responsibilities can vary, there is a need to ensure these activities are adequately resourced, especially during the investment period (subject to ensuring value for money is attained).

Drawing on Best Practice Guidance

There is extensive and helpful guidance on the governance arrangements for investment funds, including HMG and BVCA guidance. The available evaluation evidence points to the importance of having a separate management board and an investment advisory group (which advises on the overall investment strategy), although there can be some value in common membership between the two.

Balancing a Public and Private Sector Ethos

Whilst being wholly funded by public money, the JEREMIE funds are managed by the private sector. This brings challenges of governance and accountability, with the need to balance the responsibilities of public sector funding with a commercial ethos. This is an important principle in ensuring that the funds both establish and maintain credibility with the private sector, and that they deliver the objectives set by their core funding partners. It is important that there are cleared and shared understandings of fund structures and objectives from the outset, and that these are fully reflected in reporting arrangements.

Involvement of National Public Sector Agencies

The British Business Bank brings expertise and Government money to the SME finance markets. This has been a major resource commitment by the British Business Bank and demonstrates the desire of Government to see these structures succeed. It is important to build on this expertise and the continued input of the Bank as partners design and implement future FI arrangements.

Performance Management

Whilst instilling a performance management culture is critical to the success of the funds, it needs to achieve a good balance between ensuring fund managers deliver against key targets while avoiding any excessive interference with their delivery. Project developers need to carefully consider how they can best achieve this, including governance and management structures and the systems and processes they put in place. This needs to be explicitly addressed in the preparation of the business plan, the procurement process and the development of systems.

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[44] Improving access to finance for small and medium-sized enterprises, National Audit Office, December 2013 http://www.nao.org.uk/wp-content/uploads/2013/10/10274-001-SMEs-access-to-finance.pdf

9.7 Conclusions

Two decades experience of designing, implementing and closing ERDF backed SME finance FIs has provided a range of important lessons. In summary, the key points are:

- **The need to be clear on the purpose of the proposed FI, including the mix of finance and economic development goals**
- **To understand the needs of the market and the manner in which this varies between different types of SMEs (including being proactive in filling these gaps where they may constrain the understanding of market needs)**
- **To draw on the experience and resources of a wide range of partners nationally, regionally and locally**
- **Although there are benefits in range of different delivery models, the evidence points to very important advantages of the fund of funds model given the current policy emphasis on more efficient and effective delivery**
- **Be realistic about project development and delivery, including not underestimating the complexity of SME finance projects, and balancing ambition and realism**
- **In talking decisions about FI design and delivery, be aware of the cost and performance implications of these decision**
- **Ensure a performance management culture which can drive performance and reward it is an appropriate way.**

10 Added Value of ERDF Backed Financial Instruments

10.1 Introduction

This section considers the scope for the use of ERDF backed SME finance FIs to add value in delivering the ERDF programme, as well as other relevant policy objectives. This includes the potential to add value through:

- **Securing greater economic impact and value for the public sector's contribution**
- **Use of additional resources available for delivery**
- **Consistency and complementing other priorities within the ERDF programme or other ESIF programmes**
- **Consistency and complementing other EU, national and sub-national policies and programmes.**

10.2 Potential Sources and Types of Added Value

Providing Much Need Finance

The fundamental objectives of the ERDF backed SME finance FIs is to provide finance which SMEs are unable to secure due to a range of market failures. The financial crisis of the late 2000s has extended these markets failures, arguably both in the absolute finance gap and the range of finance which SMEs are unable to secure.

The overwhelming evidence from a range of evaluations of the non-grant based SME finance FIs which have been implemented over the past decade is that they have been effective in this specific goal of providing finance to SMEs. Indeed, the Mid Term Evaluation of the northern JEREMIE funds[45] concludes that the funds have played a very significant role in providing finance to SMEs, most of which would not have been forthcoming in such challenging economic and market conditions.

High Levels of leverage.

A marked feature of many SME finance FIs is their ability to lever in substantial additional investment, both in the creation of the fund (drawing in institutional investors such as the EIB in the case of JEREMIE) and also through individual investments in SMEs on a deal-by deal basis (as gap funders, these FIs typically, although not always, invest alongside other funding partners such as banks, venture capitalists, factoring companies etc.).

Developing Financial Expertise in the Regions

The ERDF backed FIs also potentially play another important role in terms of the scope to draw financial market and investment expertise which would not otherwise be in the regions. Many of the regions outside of London and South East, aside from some clusters in the major regional centres, have lacked sufficient expertise in more specialist forms of finance and investment. This has been one of the factors which have limited the access to these types of finance for these areas and in some regards counts as a market failure.

The larger funds, especially the funds of funds, have enabled indigenous fund managers to grow, often recruiting expertise from outside their own regions, as well as drawing new fund managers into the

[45] The Mid Term Evaluation of the English JEREMIE Funds, The JEREMIE Holding Funds, 2013

regions. For example, Finance Wales, an experienced fund manager, now runs public sector backed funds in the North East and North West. The North East has recruited specialist early stage fund managers from outside the region to run a number of the JEREMIE funds and the evaluation pointed to the potential for these managers to remain in the region in the future irrespective of the availability of ERDF backed funding.

There is a requirement for a great deal of expertise and professionalism in designing and delivering the larger public sector backed instruments. The emphasis which the EU and UK Governments have placed on more effectiveness FIs has helped to ensure that some of the hard lessons from previous activity are learnt and acted upon. The involvement of the EIB in a number of these funds, but also a number of other private sector investors, has helped to ensure more rigour in design and delivery.

Stimulating Private Sector Provision

Linked to the above point, the available evaluation evidence also points to the role that the ERDF backed FIs can play in stimulating a more active private sector investors, including angels and venture capitalists, in the regions in which they operate. This occurs for a number of reasons, including the scope of ERDF backed funds to create new opportunities for coinvestment, some of which will be attractive to investors both in and outside the region. The involvement of the public backed funds helps to reassure the private sectors, as well as helping to share risk. At a very practical level, the fund managers running ERDF backed funds in the regions often have connections with other investors outside the region with whom they can propose coinvestment or even promote deals which they would not be able to invest in themselves.

On this point, the mid-term review of the Northern JEREMIE funds concluded "t*he funds have played a role in stimulating a more active private corporate finance sector in the regions (especially in the North East), but this has been less than might have occurred if the market conditions were less challenging"* (during the recession, that is).

There is the potential for the ERDF backed FIs to displace or crowd out private sector investment activity. The evaluation evidence in England over two programme periods, although subject to a range of limitations in its coverage of this particular issue, suggests that whilst crowding out may occur it is largely at the margins. The mid-term evaluation of the JEREMIE funds pointed to not only fairly limited displacement of the private sector investors, but much less scope for this to occur given the economic climate. The findings also point to the importance of a well-designed investment strategy, the role of State Aid rules and practical deliver rules which help order to promote additionallity.

Driving Economic Impacts

ERDF backed SME finance FIs can be used to achieve a range of desirable economic development impacts, through addressing market failure in the provision of finance to SMEs and stimulating the awareness, demand for finance and investment readiness of SMEs.

The mid-term evaluation of the Northern JEREMIE programme provides the most comprehensive and consistent analysis of the emerging gross and net additional economic impacts of these funds mid-way through their investment periods. It reaches the following conclusion:

"The analysis of the SME beneficiary survey has also informed an initial assessment of the emerging net additional economic impacts (allowing for finance deadweight and economic displacement) and the associated value for money. The limitations of the analysis and the survey data it uses need to be borne in mind and hence the estimates should be interpreted with caution. The analysis indicates that the unit costs

associated with the achievement of job creation and gross value added are reasonable at this stage in the life of the funds, but offer considerably better value for money than grant finance or soft loans".

The available evidence on the extent to which these instruments achieve other economic development objectives such as stimulating research, innovation and enterprise activity more generally is also positive. However, these goals are achieved more effectively where FI activity is accompanied by other measures (e.g. business support) to stimulate demand side awareness and capacity.

Although the evidence is generally positive a review by the Centre for What Works notes the gaps in the evidence: *"While most programmes appear to improve access to finance, there is much weaker evidence that this leads to improved firm performance. This makes it much harder to assess whether access to finance interventions really improve the wider economic outcomes (e.g. productivity, employment) that policymakers care about.[46]"*

Legacy Returns

One of the key strengths of using ERDF backed FIs to provide finance to SMEs rather than grant mechanisms (of soft loans for that matter) is the potential to secure so called legacy returns for the public sector investment of revenue and capital grant. The real advantage of this is that the legacies can be recycled into future SME focused FIs and hence support additional and on-going investment with SMEs.

The FI models which have been developed over the past decade have been designed specifically to deliver these legacies. However, the ability to secure these legacies will depend upon the nature of the model, the underpinning investment strategy, the economy cycle in which investment occurs and the effectiveness of fund management activity.

Whilst the earlier funds operating in previous programming periods have been criticised by the modest or lack of legacies, these periods have been an important learning period for project developers and delivery agencies in the UK. Indeed the UK has set the pace in Europe in aspects of these instruments.

The current experience in the 2007-13 ERDF programme period is on balance more positive despite the impact of the recession delaying progress, although it is still early days in the realisation period of the equity backed FIs. The current projection is for legacy returns of £350 million, with over a half of this accounted for by the three JEREMIE funds. Although positive, this data needs to be treated with caution at this stage as it is still fairly early days and has not been subject to rigorous independent examination.

Demand Side Effects

The general conclusion is that the ERDF backed FIs help to secure a range of demand side benefits, including raising awareness of the range and relevance of finance options available to them, helping to raise investment readiness and ensuring effective business management. Although there is limited survey evidence to demonstrate the extent to which these effects are realised, the anecdotal evidence from our consultations is supportive.

The experience of North East Finance suggest that the investment readiness activity which has been run alongside the JEREMIE programme has been important to ensuring a flow of good investment ready

[46] http://whatworksgrowth.org/policy-area/access-to-finance/#.VJPaxnpAMg

propositions (although restricted to smaller enterprises which have less experience and management expertise in-house. NEF is keen to run a similar programme in the new programme period.

The extent of finance awareness and investor readiness can be an issue where areas have not previously been proactive in running SME focused FIs or related business support initiatives. This is the case to some extent in the East Midlands region and is one reason for an interest in pursuing these interventions alongside any FIs which may be implemented.

Consistency with Other Interventions

The approach to the delivery of sub-national economic development has been devolved to the LEPs in England. As noted earlier, these have been tasked with developing comprehensive economic strategies for their areas, including the plan for the ESIFs. The guidance which DCLG has provided to the LEPs covers the development of their plans for the use of SME finance FIs, including the need to coordinate these to the plans of their neighbouring LEPs, as well as the measures they pursue around business, enterprise, and research and innovation more generally.

Whilst the consistency of these plans will need to be thoroughly tested as their detailed plans become clear, DCLG has tested this through their initial review process. Our review of the LEPs plan in each of the area reviews suggests that in general there is good consistency in all regards.

A similar issue of consistency arises with the other SME finance initiatives which are promoted by the British Business Bank. The Bank is very active in supporting the delivering of a range of debt and equity products through the private sector, and additional support was announced in the Autumn Statement 2014. Many of these interventions operate at a national level and are not specifically targeted or allocated sub-nationally. This helps to promote consistency between ERDF backed provision and minimise potential overlaps, especially in the areas which pursue more active use of ERDF to support FIs.

There has continued to be a use of mostly small FIs at a local level, often managed through local authorities, with a particular focus on microfinance, small loans or grants. Although there is not a complete picture of how many of these schemes exist or the precise basis of their operation (unless they are ERDF backed), our understanding is that the overlap between them and the larger ERDF backed regional schemes is limited. They can be important in filling localised gaps which these regional schemes would struggle to address.

More recently, a number of RGF backed schemes have emerged, operating at a regional or LEP level. A number of these are large in their overall scale, the amounts of finance available to individual SMEs, and hence the potential overlap with ERDF backed instruments. The area overviews suggests that many of these are filling gaps which ERDF backed activity is currently not addressing and will cease investing in the next 2-3 years (depending upon the precise arrangements and proposals for use of legacies). Clearly, the investment strategies for the new ERDF funds need to take account of these factors.

11 Overview of Finance Gaps and Need for Intervention

This section draws together the analysis from the preceding chapters, as well as the recommendations in the area overviews, in order to set out the emerging conclusions about the scale at which ERDF backed finance should be provided to SMEs in England through FIs.

11.1 Market Failures and the Finance Gap

Sections five to eight analysed the demand and supply conditions affecting microloans, early stage risk capital, and debt and equity for established growing SMEs, based on desk based analysis and extensive consultations. The analysis concluded that:

- **There are significant structural market failures affecting parts of the finance market for SMEs**
- **Whilst these market failures vary across England to some extent (for example, access to private venture capital can be better for some classes of SMEs in London and the South East for example), they nevertheless exist and restrict access to finance for start-ups and growing SMEs across England as a whole**
- **The financial crisis has exacerbated these issues facing SMEs, especially in terms of the behaviour of the high street banks which have both reduced their lending overall and concentrated on lending larger amounts to less risky SMEs as part of their strategy of rebuilding their balance sheets**
- **Survey evidence points to SMEs in England experiencing more difficulties in securing the finance they need for working capital and new investment over the past 3-4 years**
- **As the economy recovers, the evidence points to an improvement in the level of business start-up, the growth of existing SMEs and indeed an upswing in business confidence, which is feeding into a greater demand for external finance**
- **As a consequence there is a substantial finance gap affecting SMEs even allowing for the range and scale of public sector backed initiatives that are operating in this space (although many of the existing ERDF backed schemes have now or will cease investing in 2015).**

Drawing on existing survey evidence, our analysis points to around **£1.6 billion per year of theoretical unmet demand for external finance from SMEs, assuming on a fairly cautious basis that 10% of the businesses seeking and unable to secure finance are viable.** This is unmet demand for finance over and above what the private sector and public sector backed providers (including ERDF backed schemes) are already providing to start-ups and SMEs. Our best estimate is that between 8-10% of this finance is equity based, although quasi equity such as mezzanine finance will be in addition to this.

To put this in context, the ERDF backed FIs which have been financed through the 2007-13 programme are forecast to make total investments with SMEs of around £650 million (up to the end of 2015) or an annual average of c£110 million based on an indicative six year investment period. Whilst ERDF is making an important contribution in addressing this potential gap, it is clearly on a fairly small contribution.

Whilst this analysis points to a very large level of theoretical unmet demand for finance, this calculation needs to be treated with considerable caution and should not be confused or conflated with a sensible investment range within which ERDF backed FIs should be operating, for different parts of the market i.e. the types of finance they require. The reasons for this include:

- The calculation is based on national survey evidence, which does not provide a robust evidence base in its own right to draw sound conclusions about demand which goes unmet or is met by existing public sector backed schemes
- Experience suggests that much of this unmet demand does not arise due to market failure (as opposed to inadequate business plans), although the evidence about how much is unclear
- If the public sector chooses to use the available ERDF resources to provide finance to SMEs, it needs to do so on the basis of the absolute and comparative economic impacts and value for money it can secure (there are of course other competing demands for the scarce ERDF resources).

It should also be borne in mind that there are various national, regional and local public sector initiatives that are already targeting part of the market where market failure occurs and where we presume the best economic returns and VFM can be secured, although some of these are time limited and in the case of ERDF backed schemes most will cease prior to the next round of ERDF backed FIs.

The sub-national assessment work undertaken to date has been informed by extensive analysis of existing data and consultations with business and finance representatives across the regions. This has been informed by an area assessment framework, set out in Annex Two, which has been applied as consistently as possible across the nine English regions, although in practice there are significant variations in the available evidence which is a vital part of the assessment across the regions. Once completed as part of block two, the area assessments set out in the annexes will identify a sensible investment range within which ERDF backed FIs should be operating.

Annex One - Comparison of the Penetration of SME Finance by Region

The purpose of this section is to provide a comparison of take-up of SME finance by region. Although the finance types cannot be organised on exactly the same basis as the categorisation of finance used in section 5-8, we have benchmarked by broad debt and equity based finance types.

The provision of finance is benchmarked against the size of the SME base and Gross Value Added. In doing so, the limitations of the analysis should be borne in mind, for example:

- The annual average is based on the last three full years (2011-13), although the timing of the period does vary to some degree by finance type due to the availability of the data
- The benchmarking of the regions on the basis of regional GVA and the SME base is only intended to be indicative and may be influenced more in some regions than others by the performance of these bases (e.g. GVA is London is heavily influenced by the performance of non-SMEs based in the region)
- For some types of finance there is not a clear cut distinction between debt or equity provision – for example, some forms of equity finance also includes significant amounts of debt finance.

In absolute terms, the volume of debt based investment is largest in London, representing just under a quarter of all debt investment in England. Compared to the GVA of each respective region, the highest rate is in the South West. The North East and the East Midlands also have notably higher volumes of debt finance compared to their economies in comparison to the national rate. In comparison to the SME base in each region, the North East and South West have an investment rate far higher than the national rate. The East of England has a notably lower rate, 50% lower than the national rate.

Table 0.1: Regional Benchmarking of Take-up of Private and Public Sector Backed Debt Finance by SMEs

	Average Annual Investment, £m	Average Annual Investment (£) per £1m of GVA	Investment per SME (£)
North East	1,150	26,950	31,900
South West	3,500	34,360	31,000
London	5,550	17,970	29,450
East Midlands	1,900	24,080	22,950
Yorkshire and Humber	2,050	21,770	22,500
West Midlands	2,100	21,340	21,250
North West	2,650	20,320	21,700
South East	3,050	15,130	16,800
East of England	2,600	22,390	13,050

England	24,350	20,770	23,600

Note: a detailed coverage of the sources and coverage of the data is provided in the Appendix. Figures may not sum to England total due to rounding.

The overall volume of equity investment is substantially lower than that of debt finance. London has the largest average annual investment, followed by the South East, reflecting both strong demand and the presence of substantial private sector provision. Taken together, they represent 65% of the total average annual equity investment in England. Compared to both the size of the economy and the business stock in each region, investment is highest in the North East, double the national investment rate.

Table 0.2: Regional Benchmarking of Take-up of Private and Public Sector Backed Equity Finance by SMEs

	Average Annual Investment, £m	Average Annual Investment (£) per £1m of GVA	Investment per SME (£)
North East	180	4,340	5,660
London	980	3,160	5,190
South East	540	2,670	3,030
North West	220	1,680	1,740
South West	140	1,360	1,190
West Midlands	120	1,260	1,140
Yorkshire and Humber	100	1,080	980
East of England	110	910	910
East Midlands	70	850	910
England	2,330	1,980	2,420

Note: a detailed coverage of the sources and coverage of the data is provided in the Appendix. Figures may not sum to England total due to rounding.

Overall, the take up of British Business Bank schemes is higher than the take up of ERDF backed schemes. Compared to the GVA of each respective region, Yorkshire and Humber has the highest average annual investment of British Business Bank backed finance, with the North West the only other region with an investment rate higher than the national average. Compared to the SME base in each

region, all of the northern regions as well as London have an average investment rate higher than the national average. The East of England has the lowest investment rate, 40% lower than the national average.

Looking at the investment of ERDF backed finance, the volume of investment and the investment rate in comparison to the GVA and size of the business base in each respective region is highest in the northern regions, primarily due to the JEREMIE funds operating in these regions. Notably, ERDF backed finance has had little penetration in the East Midlands and the South East.

Table 0.3: Regional Benchmarking of Take-up of British Business Bank and ERDF Backed Finance by SMEs

	British Business Bank			ERDF		
	Avg Annual Investment, £m	Avg Annual Investment (£) per £1m of GVA	Investment per SME (£)	Avg Annual Investment, £m	Avg Annual Investment (£) per £1m of GVA	Investment per SME (£)
Yorkshire and Humber	£106	£1,140	£301	£21	£223	£59
London	£245	£793	£292	£3	£9	£3
North West	£134	£1,028	£280	£28	£212	£58
North East	£34	£820	£254	£31	£750	£232
South East	£165	£815	£209	£-	£-	£-
East Midlands	£61	£771	£196	£1	£7	£2
West Midlands	£69	£703	£183	£15	£156	£40
South West	£83	£812	£177	£2	£24	£5
East of England	£72	£618	£142	£3	£24	£5
England	£1,000	£852	£235	£104	£89	£24

Note: a detailed coverage of the sources and coverage of the data is provided in the Appendix. Figures may not sum to England total due to rounding. In some instances, the data is too small to be reported

Annex Two - The Assessment Framework

11.2 Finance Gap Assessment Framework

11.2.1 Introduction

It is important to be clear on the framework which will be used to assess the finance gap and associated market failures before commencing the detailed assessment. The framework and thus the method used needs to flow logically from the theoretical market failure arguments that underpin the rationale for public sector intervention in the SME finance market.

The challenges of the assessment include:

- The inability to directly and reliably observe the finance gap and in particular the part of this gap that is due to market failure
- The limitations of the published data available on the demand and supply of external finance for SMEs at a regional and sub-regional level within the UK
- The economic geography of finance markets and the complexity with which these operate across the UK and regional and sub-regional economies
- The scope which public sector agencies have to prioritise different parts of this finance gap given their local economic development priorities, as well as their attitude to risks and returns (which, for example, tend to be higher for early stage finance than debt)
- The dynamic nature of finance markets and the difficulties of predicting the nature and scale of gaps in provision over the period in which any SME Finance Funds will run
- The uncertainty on future economic performance of the UK and its regions.

Acknowledging these challenges, the framework set out below draws on economic theory focused on the provision of finance to SMEs, as well as published guidance on the assessment of the finance gaps.

In this instance, the core requirements for the assessment are:

- Whilst recognising the limitations of focusing on any particular spatial scale, the main focus of the analysis will be at a regional level. However, where appropriate, the analysis will draw out factors which are relevant to the potential form of intervention at a lower spatial scale.
- A consistent assessment approach across regions, allowing for the differing evidence base between regions.
- Given the analysis of the finance gap, a quantification of scale and type of finance which ERDF backed instruments should be targeting, allowing for the considerable uncertainty and range of other factors which will influence this.
- Distinguishing the need for finance by stage of finance as far as is practical and appropriate, in particular debt for micro- businesses, early stage risk finance and both debt and equity investment for growing, established SMEs.

11.2.2 Finance Gap Framework

The market assessment framework is based on market failure theory in SME finance. The framework has three conditions, which need to be met in order to make the case for the existence and scale of market failure in each market segment over the timescale being considered (2014-20):

- **Condition 1:** Evidence of unmet demand, that is, that there are a significant number of SMEs that are failing to secure the finance they are seeking from mainstream sources or are discouraged from seeking finance due to the expectation of refusal. This is a necessary condition for market failure, but is not sufficient, since a certain proportion of SMEs will always fail to obtain finance as their business plans are unviable (i.e. the risk of failure would be too high to justify publicly funded support for them). Unmet demand can be demonstrated through recent survey evidence of SMEs and consultations with advisers and finance providers.
- **Condition 2:** Evidence of value for money from public sector led interventions. This requires that, on average, the returns from investing in a sub-set of this class of firms can under reasonable assumptions be expected to justify the costs – that is, they offer good value for money for the public sector. This takes in both pure financial returns and the wider economic development returns (for example, in the form of net additional GVA or softer measures such as enhanced innovation). The balance between the financial and economic returns will vary by market segment. For instance, it can be expected net financial returns to be negative for microloans but positive economic development outputs may outweigh this. Some insight into this can be gained by considering the performance of existing funds operating in the regions.
- **Condition 3:** Evidence of persistence of conditions 1) and 2) over the period of the ERDF backed interventions. Finally, if it is evident that these two conditions are currently met, it needs to be examined whether the conditions can reasonably be expected to continue to hold over the investment period being considered. This is largely a matter of judgement, drawing on the views of a range of stakeholders on future demand and supply, as well as macro-economic forecasts where available.

This framework is summarised in Figure A2.1 below. Annualised returns on investment are shown on the vertical axis and the value of investment made on the horizontal. The general assumption is that there are diminishing returns: as more money is invested it will be increasingly difficult to find good quality propositions, so overall returns fall.

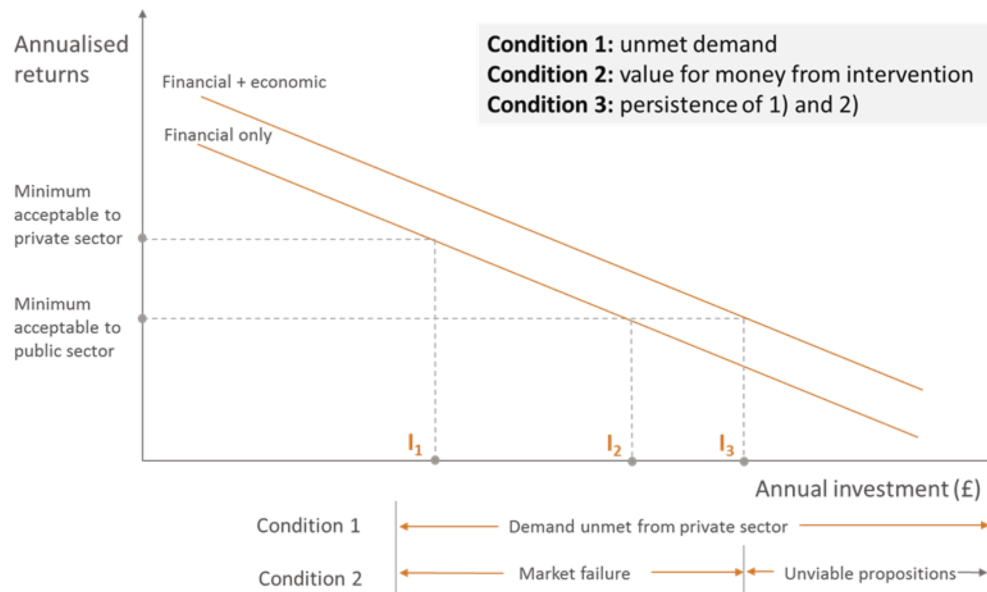
The challenge is therefore to estimate, given the prevailing behaviour of the private sector, how large this area of market failure is. If condition 2 is met then this effectively gives a lower bound –the scale of market failure is at least as large as this level of investment. Testing at what point I3 would be reached is much more a matter of judgement and building on the experience of existing funds where possible.

Under a perfect information scenario, the private sector invests up to the point I1, where the financial returns are at least equal to their minimum acceptable rate of return. Since information is imperfect and asymmetric, in practice at somewhere to the left of this point firms find it difficult or impossible to secure the external finance they need from mainstream sources, as private providers start to ration credit around this point. Any point to the right of I1 is therefore demand unmet by the private sector (Condition 1 in the framework). This can often be inferred from surveys of SMEs, although this evidence source is more extensive for debt finance than venture capital.

From a cost-benefit point of view, the public sector is interested in investing in order to secure the wider economic development benefits, as well as some level of financial return for a legacy fund. Once point I2 is reached, the financial returns alone from further investment are below the minimum acceptable return to the public sector. At any point to the right of this, there is therefore a net financial cost to the public sector. But assuming that further economic benefits can be secured from further investment at an acceptable cost to the public sector, there is a market failure rationale for further investment. Therefore, the public sector may invest up to the point I3, where the sum of the financial and economic returns is equal to the minimum acceptable return to the public sector. Further to the

right of I3, the investments will not represent value for money for the public sector under normal circumstances. On this definition, this portion of unmet demand does not represent market failure and is not therefore part of the target market for a publicly backed Fund.

Figure A2.1: Illustration of Market Failure Conditions



Source: Regeneris Consulting

11.2.3 Operationalising the Framework

Translating this framework into a useful tool which can address the requirements or principles set out in paragraph 1.4 is challenging. It requires a series of practical steps, as outlined below. Each step will draw on the preceding evidence collected, analysed and presented in the main body of Part B of the report, presenting the conclusions in a summary format.

11.2.3.1 Step 1 - Analysis of Demand and Supply Characteristics

The main chapters of the market assessment and the area overviews will analyse the variation in the economies across England, including the various factors which shape the demand and supply of external finance amongst SMEs. Factors which contribute to important variations at a sub-regional level will also be considered, such as sectoral strengths, enterprise activity or high levels of business R&D and innovation.

This analysis will draw on:

- Analysis of business demography data and other relevant datasets (e.g. R&D and spin-out activity)
- Analysis of the supply of finance by stage of development and type of finance
- Consultations with LEPs and the business and financial communities.

11.2.3.2 Step 2 – Analysis of Unmet Demand

As outlined earlier, this will draw on recent survey evidence of SMEs' finance requirements and consultations with business representatives, financial advisers and finance providers.

Whilst national SME finance surveys are published, these sources do not in their own right provide a robust evidence base at a regional level (and certainly not a sub-regional level). This can be supplemented by ad hoc regional and sub-regional SME survey evidence where it is available, although this will inevitably raise issues of the robustness and consistency of this data.

Also, availability of survey evidence is generally much greater for loan and overdraft finance, as opposed to equity, mezzanine and some other types of finance where the published survey evidence is patchy. The pattern of demand for early stage and expansion equity investment is generally more uncertain and variable over time and hence harder to predict.

Nevertheless, discussions with both private finance providers and public sector backed funds can provide a useful insight into the observed demand for these types of finance and the quality of these propositions, as well as the extent to which there could be latent demand which does not materialise for various reasons (particularly a lack of supply).

The approach to quantifying the unmet demand will follow as far as practical the GAFMA guidance, at least for loan finance for which it is more appropriate. We expect to be able to arrive at estimates using a combination of:

- BIS Business Population estimates (available regionally from 2011 to 2013)
- BIS Small Business Survey (a survey every two years of UK SMEs, available at the UK level only from 2008 to 2012. The sample size for the 2012 survey was 5,700, of which 4,800 had at least 1 employee)
- SME Finance Monitor (available regionally from 2011 to 2013, with the UK sample size for the 2013 survey being 20,000).

11.2.3.3 Step 3 – Assessing Market Failure and VfM from Public Sector Interventions

The underlying purpose of this step is to draw conclusions about the nature and scale of viable SMEs and their investment propositions within the overall unmet demand segment, i.e. those which fail to secure funding due to market failure. There are two mains ways of assessing this:

- Consultations with private sector finance providers and intermediaries about the extent to which viable SMEs and related investment propositions fail to secure the necessary finance at an acceptable price and associated terms and conditions
- Examining the performance of public sector backed SME finance schemes – both through ERDF and other funding streams – including their financial and economic performance. Although drawing on a complex set of metrics, this will provide an indication of the extent to which these schemes are able to address market failure and secure value for money to the public sector (a combination of financial and economic development returns) given their particular investment strategies.

Step 3 clearly draws on diverse sources of evidence and whilst it will draw on quantitative evidence, this aspect of the assessment will be more qualitative in its nature.

11.2.3.4 Step 4 – Analysis of Potential for the Persistence of Market Failure

This is largely a qualitative analysis of whether any observed unmet demand and market failure can reasonably be expected to continue to hold over the investment period being considered. This is largely a matter of judgement, drawing on the analysis of demand and supply conditions, emerging plans for private or public sector backed SME finance and other relevant initiatives, and the views of a range of stakeholders.

11.2.3.5 Step 5 - Review of Economic Development Priorities

Steps 1-4 will provide a broad indication of the scale and nature of the finance gap and the part of this gap accounted for by market failure. The review of the local economic development priorities undertaken within step 5 will identify whether there is a strategic case for the public sector targeting any particular part of this investment space. For example, a particular LEP or grouping of LEPs may have identified a particular sector or business cluster as a priority due to the opportunities for securing economic growth. These LEPs may have investment plans to stimulate the growth of the sector or cluster, which in turn may stimulate demand for finance.

The merits of specifically focusing a public sector led financial instrument upon these particular priorities would need to be considered alongside the merits of a more generic market-focused approach. It should be borne in mind that some specific priorities of this nature may have a different risk and reward profile to a more generic approach, which may in turn have implications for the deliverability and value for money of public sector interventions.

11.2.3.6 Step 6 – Capacity to Deliver

Taken together, steps 1 to 5 will provide a clear indication of the optimum scale and nature of an ERDF backed FIs at the regional level and, where practical, variations at a sub-regional level.

However, the ability to deliver this particular scale or type of SME finance needs to be carefully considered in light of:

- previous and current investment readiness activity with SMEs
- the track record of public sector led SME finance schemes, including the benefits this may bring in terms of raising awareness of these sources and mode of operation amongst SMEs
- the capacity of the private sector financial community.

For example, a region which has not previously benefited from a major ERDF backed SME finance fund will need to carefully consider the implications of this both for the scale, nature and investment profile of a future fund. This will pick up on any important sub-regional points, for example around the LEP groupings that are in place and their scale.

The analysis in steps 1-6 will be brought together for each region and type of finance in the structure set out in the structure shown below.

	Micro loans	Early Stage VC	Debt for Growing, Established SMEs	Expansion Equity for Established SMEs
Step 1 - Demand and Supply Characteristics				
Step 2 – Unmet Demand				
Step 3 – Assessing Market Failure				
Step 4 – Persistence of Market Failure				
Step 5 – Specific Economic Development Priorities				
Step 6 – Delivery Capacity				
Proposed ERDF backed Scale and Mix of Investment				

Annex three provides the area overviews for each of the nine English regions.

Annex Three – Area Overviews

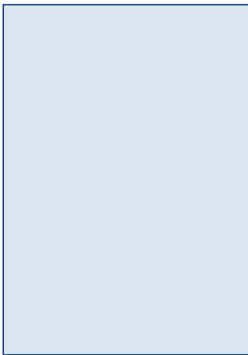
Separate document

Annex Four – Consultees and Workshop Attendees

Region	Consultees	W0rkshop Attendees
East England	• Penny Lord, New Anglia Growth Accelerator • Francesca O'Brien, Syndicate Room • Gill Praynell, Cambridge Chamber of Commerce • Penny Wright, Low Carbon Innovation Fund (Adapt Group) • New Anglia Capital • Donna Cooper, Finance East –	• Alastair Rhind, New Anglia LEP • Andy Luff, Hertfordshire LEP • Paul Witcombe, Hertfordshire LEP • Paul Keegan, South East LEP • Ross Gill, Kent County Council (South East LEP area) • Penny Wright, ADAPT GROUP) • Grant Peggie, British Business Bank • Martin Haindl, DCLG • Simon Hannah, DCLG
East Midlands	• Steve Blount, Chair of Regional Risk Finance Forum • Paul Stevenson, SME Banking Manager, Lloyds TSB • Jonathan Lowe, Catapult Ventures Group • Peter Douglas, Business Finance Services • Kevin Kaley, Thincats • Mark Payton, Mercia Fund • Tim Powell, Minerva Business Angel Network • Tony Petersen, UK Export Finance • Richard Hallsworth, Nicholsons • Gerald Couldrake, Howes Percival	• Barrie Egan, EMB (Consultant) • Anthony Barber, EMB (Consultant) • Corin Crane, Leicester and Leicestershire Enterprise Partnership • Samantha Harrison, Greater Lincolnshire LEP • Sue Tilley, North East Leicestershire LEP • Matthew Wheatley, D2N2 LEP • Sajeeda Rose, Northamptonshire LEP • David Miles, BBB • Hanne Hoeck, DCLG • Pete Holmes, BIS (or his deputy Will Morlidge) • Patricia LLopis, EIB • Graham Cope, EIF
London	• Sue Terpilowski, FSB • - Laurie Wiseman, East London Small Business Centre • - Simon Menashy, MMC Ventures • - Mark Burrows, Foresight Group • - Maggie Rodriguez-Piza, Funding London • - Catherine Glossop, GLA Innovation • - Valerie Jolliffe, Javelin Ventures	• Simon Menashy, MMC Ventures • Nicholas Nicolaou, GLE oneLondon • Valerie Jolliffe, Javelin Ventures Ltd • Peter Chapman, MMC London Fund Advisory Committee • Mark Burrows, Foresight Group • Laurie Wiseman, East London Small Business Centre • Darrel Connell, Foresight Group • Jenny Tooth, UK Business Angels Association • Kenroy Quellenec-Reid, Greater London Authority • Frank Lee, European Investment Bank • Maggie Rodriguez-Piza, Funding London

North East	Regeneris Consulting drew on the findings of a series of stakeholder workshops led by consultants to the JEREMIE 2 Project Team, as well as consulting with members of the JEREMIE 2 Project Team. Each workshop contained a mix of attendees including SME business representatives, corporate finance advisors and finance providers. Regeneris attended two of these sessions as an observer and was provided with notes from the other sessions. The workshops were as follows: • Newcastle, 12/11/14 (attended) • Sunderland, 17/11/14 • Northumberland, 18/11/14 • Durham, 19/11/14 • Stockton, 20/11/14 (attended) • Hartlepool, 21/11/14	• Grant Peggie, BBB • Judith Dibley, BBB • Emily Smith, EIB • Frank Lee, EIB • Iain Derrick, DCLG • Chris Taylor, DCLG • Andrew Mitchell, NE Finance and JEREMIE 2 Project Team • Estelle Blanks, NE Finance and JEREMIE 2 Project Team • Jason Hobbs, NE Finance and JEREMIE 2 Project Team • Alastair Smith NE Finance and JEREMIE 2 Project Team • Linda Edworthy, Tees Valley Unlimited (TVU) • Stephen Catchpole, TVU • Kay Goodinson, NEA2F and J2 team • Michael Karim, NE LEP • Helen Golightly, NELEP • David Smith, NELEP • Simon Goon, Durham County Council/Business Durham
North West	• Jonathan Diggines – Enterprise Ventures • Penny Attridge – Spark Impact • Gary Guest - FW Capital • Adam Workman - 350 Investment Partners LLP • Fred Mendelsohn - AXM Venture Capital • David Martin - Business Finance Solutions • Mark Hughes – Manchester Growth Company • Andy Thomas – Maven Capital Partners • Jerry Scriven - Daresbury Company Solutions • Graham Bond – Baker Tilly • Melanie Yeomans – Ward Hadaway • Mark Rahn – MTI Ventures • Simon Graindorge – IP Group	• Mark Basnett, LCR LEP • Martin Kelly, Lancasahire LEP • John Holden, New Economy • Simon Nokes, New Economy • Francis Lee, C&W Lep • David Read – CLG • Cliff Maylor - NWBF • Rachel Brosnahan – NWBF • Rob Johnson – Cumbria Chamber of Commerce • Sean Davies – Manchester CC • Andy Walker – Lancashire CC • Emily Smith, EIB • Frank Lee, EIB
South East	• Adam Stronach, Harwood Hutton • - Graham Ballantyne, RBS • - Toby Furnivall, Money and Co • - Kevan Jones, FSE • - Charles Breese, Larpent Newton	• Dawn Pettis, Oxfordshire County Council • Richard Byard, Oxfordshire County Council • Heather Dean, Buckinghamshire Business First • Adam Stronach, Harwood Hutton • Derek Beard, Handelsbank • Andrew Clark, Natwest • Eileen Modral, Oxford Innovation • Shyam Chand, DCLG • Guy Lachlan, Jones & Cocks and Bucks TV LEP

		• Patricia Llopis, European Investment Bank • David Priseman, Money & Co • Toby Furnivall, Money & Co • Richard Armitage, Natwest • Stephen Bateman, Santander • Peter Hopkinson, Invent Network • Ian Wenman, Oxfordshire LEP
South West	• Ewan McClymont, Bishop Fleming • Rob Perks, Wessex Chamber (delivery body for Wiltshire Growth Hub) • Rob Guy, Outset Finance Plymouth • Chris Burt, South West Investment Group (SWIG) • Ian Girling, Dorset Chamber of Commerce • Kim Conchie, Cornish Chamber of Commerce • Matt Giles, Get Set for Growth (investment readiness service) • Ann Vandermeulen, Federation of Small Businesses • Robert Davy, Bishop Fleming • Edward Tellwright, Swain - Business Angels and Company Investment.	• Emma Buckman, Heart of the South West • Mike Curran, Gfirst • Antony Corfield, West of England • Steve Ford, Cornwall & The Isles of Scilly • Nicky Pooley, Cornwall & The Isles of Scilly • Len Smith, Cornwall & The Isles of Scilly • Judith Haan, Cornwall & The Isles of Scilly • Julian Head, Swindon & Wiltshire • Giles Thomas, Dorset • Lyn Gardner Dorset • Tim Wheatley, DCLG • Ian Whale, DCLG • Paul Wilson, DCLG
West Midlands	• Paul Heaven, Blue Sky Consulting and GBSLEP • Tim Powell, Minerva Business Angel Network • Tony Stott, Midven • Nick Wright, Catapult Ventures Group • Sue Summers, Finance Birmingham • Steve Walker, Aston Reinvestment Trust • Paul Kalinauckas, BCRS Business Loans • Mark Payton, Mercia • Chris Brown, CBD Finance • Alison Bradley, Central Finance • David Neate, Springboard Corporate Finance • Paul Halford, Regional Director, NatWest • Andy Youngman, Regional Director, Lloyds • Kevin Kaley, Thincats	• Gary Spence, Marches LEP • Judith Wright, DCLG • Norman Price, Chairman of Regional Finance Forum and Cross LEP Sub-Group • Paul Hodgkinson, Stoke on Trent and Staffordshire LEP • David Hope, Coventry and Warwickshire LEP • Daniel Carins, Black Country LEP • Gary Woodman, Worcestershire LEP • Jonathan Dixon, BBB • Paul Brown, Black Country LEP • Paul Heaven, Blue Sky Consulting (Cross LEP representation/GBSLEP) • Graham Cope, EIF • Patricia Llopis, EIB • David Miles, BBB
Yorkshire and Humber	• Simon Pringle, BDO • Arthur Foreman, Finance for Enterprise • Andrea Copley, Irwin Mitchell • Keith Williams , UK Steel Enterprise • Anthony Winn, Handlesbanken • Alex McWhirter, Finance Yorkshire • Rory Earley, Finance Yorkshire Board Director and SME Finance Expert • Alex McWhirter, Finance Yorkshire	• Peggy Haywood, DCLG • Joanna Rowell DCLG • Heather Waddington, Leeds LEP • James Farrar, YNY LEP • James Trowsdale, Humber LEP • David Hewitt, Sheffield LEP • Alex McWhirter, Finance Yorkshire • Sean Hughes Finance Yorkshire • Sam Tarff, the Key Fund

	• Sean Hughes Finance Yorkshire	• Sally Joynson, Screen Yorkshire • Hugo Heppell, Screen Yorkshire • Julia Chapman, Partnership Investment Fund • Stephen Waud, BE Fund • Colin Mellors, York University • Rob Pearson HCA • David Miles, BBB • Emily Smith, EIB

Using Financial Instruments for SMEs in England in the 2014-2020 Programming Period

A study in support of the ex-ante assessment for the deployment of EU resources

Annex Two – Area Overviews

London

January 2015

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Version	**Date issued**	**Scope**
Version 2	2-02-15	Revised following comments of GDTs

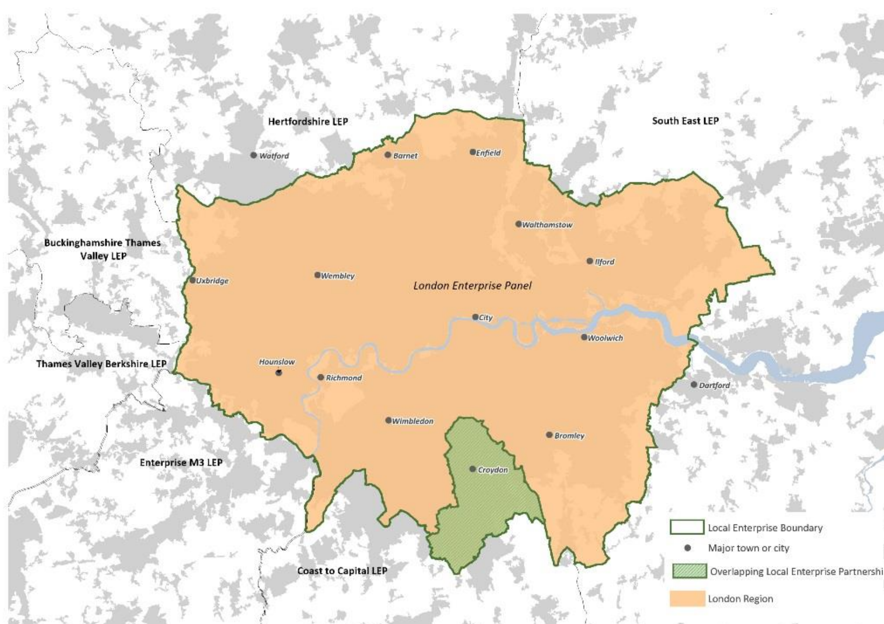
Area Overview: London

This section provides an overview of the SME finance market in London, evidence on market failures and the implications for the overall scale and shape of market failures that could reasonably be addressed by future ERDF backed interventions for the 2014-20 programme period. **In order to interpret the overview it is necessary first to review the main ex-ante assessment report, which outlines the assessment framework which is used**. These sections provide the theoretical basis for the market assessment framework used to assess the finance gap and the portion thereof that is accounted for by market failure.

This section applies this assessment framework to the region and the overall conclusions and implications of this process are summarised at the end of the section. There are various limitations in the published data sets which are used to inform this assessment and various forms of uncertainty, all of which must be borne in mind in interpreting the assessment.

1.1 Economic Geography

London is home to 8.4 million residents, 4.7 million jobs, 840,000 SMEs businesses (188,000 of which have employees).[1] SMEs represent nearly 50 per cent of all employment opportunities in the capital. London's total Gross Value Added in 2012 was £309.3 billion, equivalent to £37,200 per head of population, which compares to an England average of £21,900.

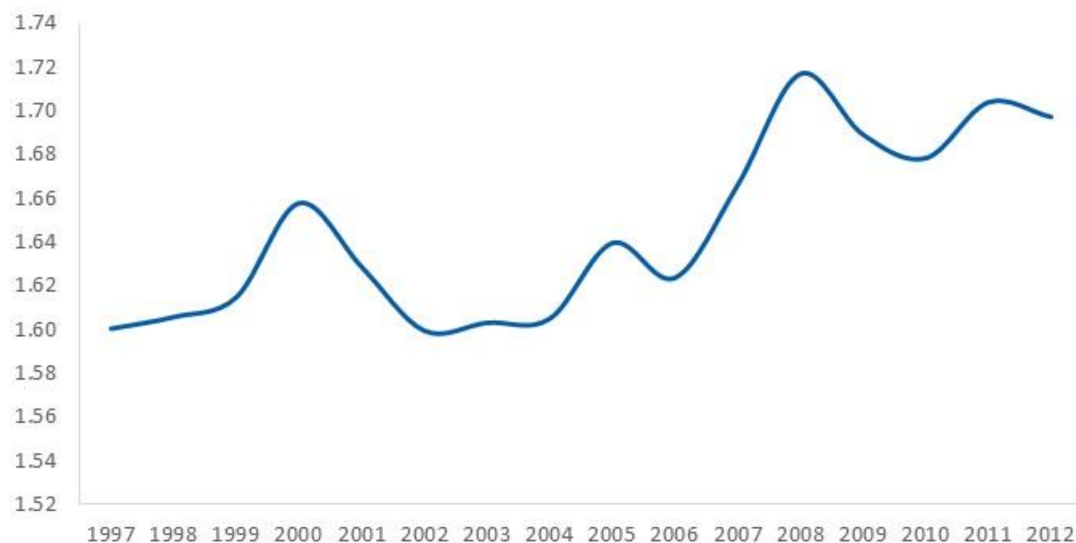


Strategic economic development policy in the region is led by the London Enterprise Panel (LEP), the local economic partnership for London, a non-incorporated consultative and advisory body which operates through the Greater London Authority. The LEP is the body through which London's boroughs, businesses and transport planners take a strategic view of the regeneration, employment and skills agenda for London.

Gross Value Added (GVA) per head of population for London has increased by 78% from 1997 to 2012, a higher rate than any other UK region. Numerically, this amounts to an increase from £20,900 in 1997 to £37,200 in 2012. Over the last 15 years there has been a broadly upward trend, and London may have been less hit by the economic downturn than other regions in this regard.

[1] Source: BIS Population Estimates. Note: This includes sole traders and businesses that are not registered for VAT or PAYE. This data is not available at a sub-regional level.

Figure 0.1: GVA per Head London (England=1.00) - 1997-2012



Source: Office for National Statistics – based on GVA per head of population.

1.2 Policy

The Jobs and Growth Plan for London sets out four key strategic priorities: skills and employment; SME growth; digital creative, science and technology; and infrastructure. Despite a record number of jobs available in London, the number of long term unemployed and the capital's rate of working age employment are recognised as key issues. There is also the need to address apprenticeships (the Mayoral aspiration is for 250,000 apprenticeship starts by 2016) and the National Careers Service offer so that London's young people can meet the current and future skills needs of the capital. SMEs have a role to play here as they account for approximately £430 billion of business turnover and around 50% of all jobs.

The four LEP priorities are as follows:

- **Skills and employment** – The LEP notes that in order for London's economy to grow, employers need to have a workforce with the knowledge, experience and skills to help them run and expand their operations. This means reviewing the existing government programmes, capitalising on the good to ensure that Londoners are best placed to compete for jobs and thrive when in them.

- **Micro, small & medium sized enterprises** – With SMEs including microbusinesses representing 99.8% of London's private sector businesses, the LEP has committed to incentivising skills and employment providers to work with SMEs and will explore an SME funding uplift with partners such as the Skills Funding Agency and BIS. The *Jobs and Growth Plan for London* has also identified promoting better SME access to finance in a commercially sustainable way as a key priority for this area.

- **Digital creative, science and technology** – London is regarded as Europe's tech capital (24,000 ICT and software companies are based in London) and the LEP wishes to lever London's knowledge assets including its world class research base to promote collaboration and attract investment. This also includes creating a competitive environment for science and technology firms and investors to further cement London's position as a world leader for innovation.

- **Infrastructure** – As London's networks supplying transport, energy, telecommunications, water, sewerage and waste services face increased pressure in light of growing demand in the capital the LEP will encourage infrastructure investment into London to keep pace with the growing demand and keep the city moving and functioning. The LEP will invest in infrastructure which helps unlock new growth areas, leveraging private sector investment.

A summary of key priorities and actions identified by the LEP under its European Structural and Investment Fund Strategy, and associated investment levels is set out below. This points to investment needs across innovation-led businesses as well as more generally to support business growth in London.

Priority Area	Actions identified
Business Support	• Boost London SME's capacity to grow • Facilitate access to finance • Internationalisation • Entrepreneurship • Resource efficiency
Innovation	• Connect London • Commercialising innovation • Low carbon and resource efficiency technologies • Development / exploitation by SMEs of digital technologies

Source: Jobs and Growth Plan for London 2013 and EU Structural and Investment Fund Strategies

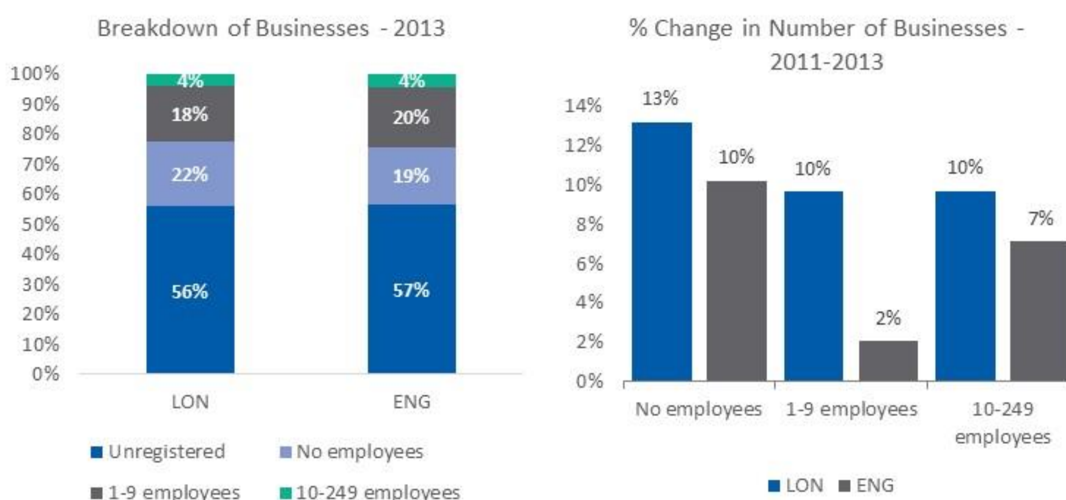
1.3 Business Demography Trends

1.3.1 Business stock

The region is home to 840,000 SMEs, of which 805,000 (96%) are microbusinesses (fewer than 10 employees), 29,000 are small (10-49 employees) and 5,000 are medium sized firms (50-249 employees). Of the microbusiness stock, 469,000 are unregistered for VAT/PAYE and 18,000 are sole traders.

The region has roughly the same proportion of unregistered businesses as the England average (56%), a smaller proportion of sole traders and similar proportion of micro and established SMEs. In the past three years London has seen the number of sole traders (both registered and unregistered) increase by 13%, which is greater than the England average. The increase in the number of all other SMEs has likewise been greater in London than that of England.

Figure 0.2: Composition (%) of SME Stock in 2013 and change 2011-2013



Source: BIS Business Population Estimates 2011-2013

There are around 401,000 registered businesses in the London Enterprise Panel area.[2] The composition of businesses by size band is similar to the national average; 90% are microbusinesses, 8% are small firms and 2% are medium sized businesses.

SME business density[3] is significantly higher (19%) than the national average in London. SME density in the London LEP area ranks 10th across all LEPs in England with 644 SMEs per 10,000 working age adults.

For the London LEP area, growth in the number of businesses has outstripped the national average over the 2011-2013 period for micro, small and medium sized businesses. The rate of growth in the number of micro businesses (11%) and small businesses (17%) in the London LEP area is especially striking compared to the national figures (4% and 10% respectively).

The largest proportion of microbusinesses in London are in the professional, scientific and technical sector, followed by information and communication and construction. For non-micro SMEs, the majority of firms in the region operate in the same sectors as above, as well as in business administration and support.

In recent years the growth of the digital technology sector, including around Tech City, and the medical technologies sector, including around MedCity, have been significant and are important areas with respect to the need for SME finance.

1.3.2 Business Starts

In 2012 around 65,000 new businesses formed in the region, the highest of all the regions in England. At 114 new business starts per 10,000 working age adults, this is far above the England average of 70 per 10,000 working age adults.

Notably, the volume of business start-ups was much higher in 2012 than 2009, with a 29% increase in the period.

Table 0.1: Business Starts in London, 2009-12

	Business Starts				Business Starts per 10,000 WAP (2012)	
	2009	2012	Abs Change		Number	England=100
London	50,575	65,095	14,520	29%	114.1	163

Source: ONS Business Demography

Although start-up rates are much higher in London than other parts of the country, it is notable that London also has one of the lowest business survival rates, with only 56% of new-starts surviving after 3 years, compared with a high of 63% in the South West. To some extent this high churn of businesses is a characteristic of a dynamic economy, driven by a number of fast growing sectors.

[2] Source: ONS Business counts data, estimates do not include unregistered businesses – which are included in the 840,000 figure above.

[3] The stock of SMEs compared to the working age population

1.3.3 High growth firms

Given the difficulties in defining and measuring high growth firms, there is little data available. However, the Business Growth Fund has commissioned research on high growth firms, using data from Experian UK of company accounts. It defines high growth firms as of those that have revenues of between £2.5m and £100m, and have had 33% increase in turnover over three years, as well as 10% year-on-year growth for a minimum of two of these years. These are the kinds of firm that are likely to have a need for external finance to support this expansion.

The latest report found that 21% of businesses with a turnover of between £2.5 million and £100m in London fall into this high growth category. London has the largest number of high-growth firms of any English region based on this definition (although 6th by percentage of all businesses), and the number is growing year on year.

Table 0.2: High Growth Firms as a % of all Businesses, 2011-13

	2011 Population of High Growth Firms	Regional Rank (2013)	2011	2012	2013
London	1619	6th	19.0%	19.6%	21.4%
England	4,044		16.9%	20.9%	22.0%

Source: BGF Growth Companies Barometer

1.3.4 Innovation activity

Overall, London performs strongly on a range of indicators of innovation. There have been 196 recorded spinouts in London since the year 2000, representing 21% of all spinouts in the UK. This is the highest absolute number of spinouts in all regions and also second highest, in terms of per head of working age population, behind the North East. Imperial College and University College London account for 69% of all spinouts in London with just under half coming from Imperial College (45%). This activity is an important source of early stage businesses with growth potential and a need for seed and early stage venture capital finance.

R&D expenditure, in particular, that is related to the private and university sectors is one driver of the spin-out and creation of companies and the demand for early stage risk finance. Expenditure on research and development has increased significantly from 2001 to 2012 in London, from £1.9 billion to £3.7 billion which represent an increase of 90%. In absolute terms this expenditure is only lower than the South East and East of England, and Higher Education R&D has grown every year since 2001 in London.

1.3.5 Enterprise indices

Alongside the data on start-up rates presented earlier, a number of indices provide an insight into the enterprise performance and conditions in the region.

The Global Entrepreneurship Monitor (GEM) provides frequent updates on the scale of early stage business activity, based on a survey of adults. Total Entrepreneurial Activity (TEA) measures the proportion of the working age population that is in the process of setting up a business or involved in a business which has been operational for less than 42 months (three and a half years). It is a commonly used indicator for assessing the extent of early stage commercial activity in an economy.

Using pooled data for 2008-13 at a regional level[4] suggest that London had the highest TEA rate of all the English regions, and above most English regions on the majority of indicators.

Table 0.3: Measures of Entrepreneurial Activity, 2008-13

Highlighted cells shows above average results	TEA	% of Opportunity E'preneurs	Stages of Entrepreneurial Activity				High Growth Entrepreneurial Aspiration[5]	
			Intend to Start-up in Next 3 yrs	Nascent E'preneurs	New Firms	Est. Firms	All TEA	Est. Firms
London	8.2%	6.6%	8.2%	4.2%	3.8%	5.3%	22.8%	6.3%
East of England	7.6%	6.2%	4.4%	3.8%	3.7%	6.1%	16.0%	5.7%
South East	6.9%	5.5%	5.3%	3.1%	3.6%	7.6%	19.0%	4.2%
South West	6.9%	5.4%	4.6%	3.1%	3.4%	7.5%	9.6%	2.5%
Yorkshire & Humber	6.9%	4.8%	4.4%	2.9%	3.8%	6.2%	10.8%	3.5%
North West	5.9%	4.3%	4.0%	3.0%	2.8%	5.7%	14.4%	5.0%
West Midlands	5.9%	4.2%	6.0%	2.7%	3.1%	5.6%	16.5%	5.1%
North East	5.8%	4.6%	4.0%	2.8%	2.8%	4.2%	10.8%	3.6%
East Midlands	5.2%	3.8%	5.3%	2.5%	2.6%	5.9%	14.7%	2.0%

Source: Global Entrepreneurship Monitor 2008-2013, bespoke regional analysis.

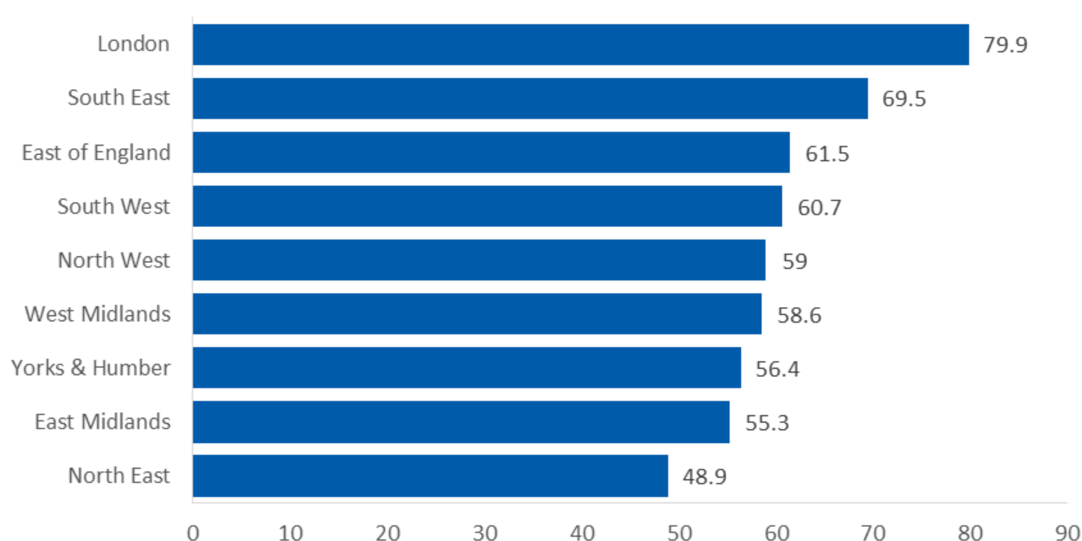
The Santander Enterprise Index is an annual ranking of "the UK's regional entrepreneurial ecosystems." It uses a methodology developed by the Global Entrepreneurship and Development Institute (GEDI) to create an index for each of the UK regions, examining performance against 15 pillars of entrepreneurship. The index uses survey data on people's attitudes, abilities and aspirations with regard to enterprise and then weights these against objective measures of socio-economic infrastructure (broadband connectivity and transport links to other markets) which provide an enabling environment for enterprise.

The latest ranking for 2014 supports the finding of GEM, with the region performing better than all other English regions. London also ranks 2nd of the 125 EU regions considered. The analysis suggests that important factors driving London's score on the index revolve around its performance on indices of attitude, abilities and aspiration, again outperforming all other English regions across these metrics. In particular, the region scores 77.7 on the aspiration pillar, a full 20 points above the second highest scoring English region (the South East). The report emphasises that an overall lack of entrepreneurial aspiration serves as a "bottleneck factor" preventing UK regions from realising their full economic potential although the data suggests that London is an exception to this.

[4] Pooling was necessary due to sample sizes at a regional level.

[5] % of firms looking to create 10 jobs and employment growth over 50% in the next five years.

Figure 0.3: Santander Enterprise Index Score - 2014



Source: Santander Enterprise Index 2014

1.4 Demand for and Take-up of External Finance

1.4.1 Survey evidence

As was set out in the main market assessment section of the report, the BIS Small Business Survey provides insights for the UK as a whole on the demand for different types of finance by region, but unfortunately it is not available regionally. The SME Finance Monitor – set up by the Business Finance Taskforce in 2010 - does provide some insight into the demand for finance from SMEs in the regions and the extent to which they are successful in obtaining the finance they are looking for. This only covers debt finance, so in looking at equity finance it is only possible to infer messages from the national SBS survey evidence. Also data is not available sub-regionally.

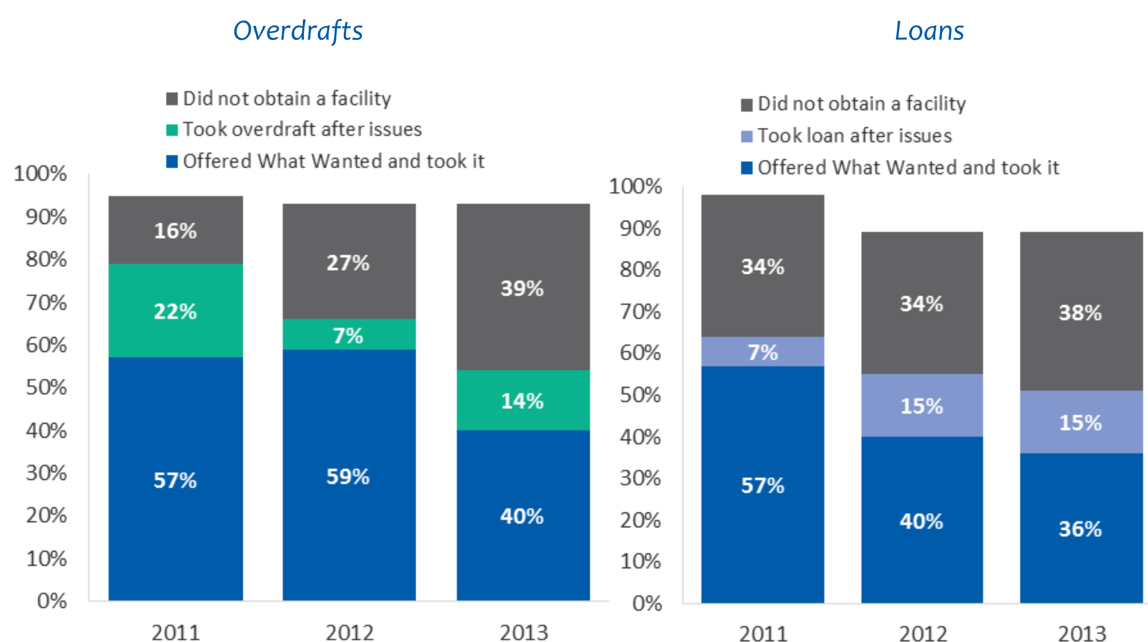
42% of SMEs surveyed in London in 2013 had used external finance of some sort[6] in the past five years. 56% had not used finance at all over this period. 32% had used either an overdraft, loan or credit card. 38% of all SMEs were classed as a "permanent non-borrower", meaning that they have not used external finance in the last five years and have not attempted to borrow over the past 12 months, and have no inclination to borrow in the next three months.

6% of SMEs applied for a new overdraft or loan facility or sought to renew an existing facility. The proportion of SMEs successful in their application for both overdrafts and loans fell over the period 2011-2013, and a greater proportion of SMEs have reported issues[7] in their application before approval. This is similar to the national trend.

[6] Bank overdraft, Credit cards, Bank loan/Commercial mortgage (these three form the core product category), Leasing or hire purchase, Loans/equity from directors, Loans/equity from family and friends, Invoice finance, Grants, Loans from other 3rd parties, Export/import finance.

[7] Issues is defined by BDRC as "something that needed further discussion before a loan or overdraft facility was agreed, typically the terms and conditions (security, fee or interest rate) or the amount initially offered by the bank"

Figure 0.4: Overdraft and Loan Applications in London - 2011-2013



Source: SME Finance Monitor 2011-2013.

Notes: 1) data for 2013 has small sample sizes and so should be treated with caution 2) the residual proportion is "took another form of financing"

The 2014 London Business Survey (GLA Economics) suggested a slightly brighter picture with overall 48% of SMEs seeking external finance obtaining all finance needed, 30% obtaining partial finance, and only 22% being unsuccessful.

The survey data with a regional breakdown only covers debt finance, so in looking at equity finance it is only possible to assess at the national level. The only data provided in the BIS SBS is on the proportion of SMEs that were looking for equity investment. This highlights that only a small proportion actively seek out this type of finance, and that this has remained stable over time (standing at 2% in 2012, 2010 and 2008). Less than 1% were seeking mezzanine finance. This partly reflects the more niche nature of equity and mezzanine finance but also probably illustrates the lack of awareness amongst some SMEs of this type of finance. The latest survey also shows an emerging awareness of alternative sources, including 1% who are aware of peer to peer/crowdfunding.

1.4.2 Theoretical Unmet demand

Whilst the BIS SBS survey provides data that can be used to assess the extent of unmet demand from SMEs, this data is not available for the regions. However, the results of the UK level survey can be applied to London's business base to provide indications of the number of SMEs in different size bands that may be struggling or unable to obtain the finance they are looking for, and hence the value of unmet demand. The important caveats attached to this analysis are presented at the end of this section.

The analysis indicates that, assuming the experience of SMEs in the region is similar to those in the UK as whole:

- In 2012 there were around 45,000 SMEs in the region looking for external finance, of which around 34,000 were microbusinesses
- Of these, around 21,000 had difficulties of some sort in obtaining this finance

- Around 14,000 SMEs obtained none of the finance they were looking for, and around 3,000 received some, but not all of what they were seeking (the national data indicates that the likelihood of successfully obtaining finance varies directly with business size).
- Around 10,000 SMEs had a need for finance but did not apply, for the reason that they thought they would be rejected (there is no further detail available from the survey on specifically why they thought they would be rejected).

Table 0.4: Illustrative Analysis of SMEs' Experience in Accessing Finance in London, using Survey Data

	Total	Looking for finance	Had difficulties	Unable to obtain any finance	Obtained some, but not all finance	Discouraged from applying because thought would be rejected
Micros (1-9)	154,200	33,900	17,000	11,900	2,000	8,700
Small (10-49)	29,100	9,300	3,600	2,300	500	1,000
Medium (50-249)	5,100	1,700	500	250	100	100
All SMEs	**188,400**	**45,000**	**21,100**	**14,400**	**2,600**	**9,800**

Source: Regeneris Consulting calculations, using data from BIS Small Business Survey 2012 and BIS Business Population Estimates for 2013.
Note: Figure are rounded so may not sum to the totals.

It is possible to then use data from the survey on the amount of finance being sought by businesses of different sizes to generate **indicative estimates** on the scale of unmet demand. This analysis shows that total unmet demand in the region could be of the order of around £3.0bn in one year. It is not possible to determine from this type of analysis how much of this is from SMEs that had viable business plans (and hence constitutes a market failure).

However, Regeneris Consulting have set out below scenarios on the proportion of firms that were viable serve to illustrate the potential scale of market failure. For example, even if only 10% of these were viable, this would imply a finance gap of £8 million for microfinance and £150 million for other microbusinesses, as well as further £130 million for finance for larger established SMEs per year[8] . The survey implies that this unmet demand has grown over time, although this is of course based on national rather than regional data.

The survey does not provide data that allows the split the unmet demand for larger amounts of finance between debt and equity finance. The SBS Survey reports that around 2% of SMEs overall are looking for equity finance. However, this does not necessarily accurately represent the proportion (of SMEs or deal values) that are best suited to equity finance, given the nature of their investment projects. Data presented by the British Business Bank suggests that around 4% of the value of finance to SMEs is in the form of equity.

[8] Note that in effect this is the gap over and above that which is already being addressed by local and national public sector backed initiatives.

Using SBS data which allows for the size of the SME and variations in the amount of finance sought by type of finance, around 8% of this overall unmet demand is likely to be accounted by equity finance (and 82% by debt finance and a further 10% by other forms of finance). **This would imply a total unmet demand of around £240 million per annum for equity (£24 million if 10% of propositions were viable) and £2,420 million for debt (£242 million if 10% of propositions are viable), in addition to that which is already being met by the private sector and publicly backed initiatives.**

Table 0.5: Illustrative Analysis of Unmet Demand (£millions) for Finance from SMEs in London, using Survey Data 2012/13

	Micros (1-9) seeking microfinance (up to £25k)	Micros (1-9) seeking larger amounts	Small (10-49)	Medium (50-49)	All SMEs
- those that obtained none of the finance they were looking for	£80	£1,430	£800	£480	£2,790
- those that obtained some, but not all, of the finance they were looking for*	£0	£60	£40	£50	£160
Total unmet demand	£80	£1,490	£840	£530	£2,950
Scenarios for % that are viable					
10%	£8	£150	£80	£50	£300
20%	£16	£300	£170	£110	£590
30%	£24	£450	£250	£160	£890
40%	£32	£600	£340	£210	£1,180

**Assumes that these firms obtained 75% of what they were looking for.*
Source: Regeneris Consulting calculations, using data from BIS Small Business Survey 2012 and BIS Business Population Estimates for 2013.
Note: Figures are rounded so may not sum to the totals.

This analysis does not cover the latent demand from discouraged SMEs. It is not possible to know how many of those that did not apply due to the expectation of rejection would have had viable business plans. However, for illustration purposes, if 10% of these firms were viable and were seeking similar amounts of money to those who did seek finance, this could add £6 million to the annual gap for microfinance and £160 million for larger amounts of finance.

In interpreting this analysis a number of caveats must be applied and limitations acknowledged:

- The data is based on a single survey of businesses undertaken in the UK in 2012. Since this is a sample survey the results are subject to sampling error, even at the UK level. Regeneris Consulting have not been able to access any data from the 2014 survey as it will not be published until spring 2015. Finance market conditions in 2014 will inevitably be different from those in 2012.

- Regeneris Consulting do not know from the survey whether businesses in London were more or less likely to be successful in obtaining finance than those in the UK as a whole.
- Although the survey reveals the proportion of SMEs that seek different types of finance, it does not allow us to analyse separately unmet demand for these different types of finance.
- The analysis presented above only covers SMEs with at least one employee – it does not include sole traders or businesses unregistered for VAT/PAYE. Regeneris Consulting do not have any data on these businesses' experiences of seeking finance, but they account for 74% of all SMEs in the region. Including this could increase the finance gap, although the vast majority of these will have more modest finance requirements linked to growth plans.
- Similarly, this does not cover the experiences of early stage, pre-revenue businesses and then the demand for and unmet requirement for seed and start-up funding.

Whilst this analysis points to a very large level of theoretical unmet demand for finance, this calculation needs to be treated with considerable caution and should not be confused or conflated with a sensible investment range within which ERDF backed FIs should be operating, for different parts of the market i.e. the types of finance they require. There are very good reasons for this in particular:

- The calculation is based on national survey evidence, which does not provide a robust evidence base in its own right to draw sound conclusions about demand which goes unmet or is met by existing public sector backed schemes
- Experience suggests that much of this unmet demand does not arise due to market failure (as opposed to inadequate business plans), although the evidence about how much is unclear
- If the public sector chooses to use the available ERDF resources to provide finance to SMEs, it needs to do so on the basis of the absolute and comparative economic impacts and value for money it can secure (there are of course other competing demands for the scarce ERDF resources).

1.4.3 Evidence of unmet demand from existing interventions

1.5 Supply of External Finance

The key trends in the supply of finance by market segment are summarised below using publicly available data. A summary table of the relevant sources of supply is provided at the end of this section.

1.5.1 *Debt*

As noted in the main market assessment, there has been an unprecedented shift in the landscape for bank debt for SMEs in the UK, with a vast reduction in the availability of credit following the financial crisis as banks have been rebuilding balance sheets. Although the precise dynamics vary from one bank to another, and some are more active in lending than others, to a large extent these trends are national (or indeed international) in scope, and hence affect SMEs in all of the English regions.

Nonetheless, it is worth briefly reviewing the available regional data. Sub-national data on bank debt was not available until the Business Finance Taskforce started to record lending to SMEs from Q3 2011. So whilst this data does not reveal anything about the period before this it does indicate the more recent trend. It can be noted however that the trends below follow on from a period of decline in loan and overdraft values nationally in the preceding years.

The total value of loans held by SMEs in London fell 8% between Q3 2011 and Q2 2014 from £19.7bn to £18.1bn. This was a far steeper decline than across England as a whole, which saw a 2% decline over this same period. The decline for medium sized businesses in London was even sharper at a 9% decline over this period.

The total value of overdrafts held by SMEs in London also fell between Q3 2011 and Q2 2014, but by a smaller proportion that in the UK as a whole. In London this reduced by 12% from £1.4bn to £1.2bn,

compared with an overall 20% reduction across England over this period. Consultations suggest that, as for other regions, banks' use of asset-based facilities such as invoice discounting (not captured in the data below or in any regional data) has increased.

Evidence from consultations with banks and the professional advisory community confirm that businesses in the region suffered from the general tightening up of bank finance around the financial crisis. Consultees felt that this was primarily affecting businesses without fixed assets, rather than any sector in particular, however the recent London business survey (GLA Economics, 2014) highlighted that construction and administrative / support services sectors had faced the greatest difficulty in accessing finance over the last year.

Consultees highlighted that they had detected some signs of banks returning to greater levels of lending to this market, and that there were new banks coming into the marketplace (e.g. Handelsbanken), however few believed that the banks would return to the levels of pre-recession lending in the coming years. The main gap for debt funding highlighted most commonly by consultees from this region was for medium sized (c. £50k-250k) loans.

The UK Government has been active in trying to stimulate the flow of lending to SMEs in recent years. The main initiatives have included:

- Funding for Lending: As elsewhere the message from consultations appears to have been that Funding for Lending has not had any noticeable impact on the supply of debt to SMEs, and that lending has been focussed on mortgages.[9]
- Enterprise Finance Guarantee (EfG). Data on the EfG suggests a relatively weak take up of the scheme in London to date compared to the size of the business base, with weakest take-up rate of any region. The value of EfG-backed loans in the region equates to around £59 million per annum on average over the period. The average value of loan backed by the scheme in the region is around £113k, showing that the scheme has been focussed on smaller amounts of debt, but at somewhat higher levels than what would constitute a micro or small loan.
- The Business Finance Partnership and the British Business Bank Investment Programme provide funding to non-bank channels to invest in small and medium sized businesses.[10] To date, £395m has been invested in the region, which is equivalent to an annual average of £144 million. The average value of investment was 292k, significantly higher than the England average of £200k. The overall funding secured across London equates to £760 per SME, which is above the England average of £500.
- The Start-up Loans initiative, set up in 2012 to help 18-30 year olds (and since expanded to cover all ages), has also had a strong impact in London. The latest statistics show that £36m in total has been allocated in London (around £13m per year on average), to a total of around 6,100 start-ups in London.

Alternative sources of debt funding have had a role to play in getting debt out to SMEs in the region. The rise of debt-based alternative sources in the UK is well documented and set out in the main report. This may be playing a role in filling gaps at the lower end of the SME debt market, with the average size of loan raised in the UK being £73,000 in 2013 and 33% of borrowers believing they would be unlikely to get funds from elsewhere. There is no reliable regional data available for P2P business lending, but it has reportedly had some take up in London. However, it remains small in the context of overall lending. As set out in the main report, the future role of these sources of funding is unclear.

[9] Unfortunately the data on the scheme is not split between lending to businesses and lending to individuals, so it is not possible to verify this using performance data.

[10] The Business Finance Partnership ran until April 2013 and the Investment Programme has superceded it. The Investment Programme makes some money available to equity investors as well as lenders.

CDFIs also provide an important source of supply of debt finance in London, through bodies such as GLE OneLondon and the East London Small Business Centre. In total, around 1,300 loans were made by CDFIs in London in 2013, with a total value of around £2.6m (an average value of around £2,000). Less finance is supplied through CDFIs in London compared to other regions however, with London having 17% of all microbusinesses in the UK, but only 5% of the total value of CDFI loans provided.

1.5.2 Early stage finance

As was noted in the main market assessment, the available data on the supply of early stage finance is limited in so far as much of the investment activity in this area is informal (through angel investors and associated networks) and therefore not wholly captured in published statistics. The available data from the BVCA shows that early stage investment in London was at between £140-180 million per year between 2007 and 2009, before dropping to between £90m-130m per annum over 2010-13. Throughout the period 2007-13, there have been around 80-110 investments in each year. To some extent this mirrors a drop in investment levels nationally over this period, although the reduction in supply appears to be more significant in the South East and London. Local stakeholders highlighted that this reflects both the higher level of activity in the South East and London previously, but also the fact that while JEREMIE programmes in other regions may have helped maintain investment levels in those areas, the South East and London lacked public-backed investment funds of this scale.

The development of tech city and growing importance of this market was particularly noted by consultees, and several new venture capital investors have entered the market, many with a particular focus on digital technologies.

These figures above include the investment made by the public-backed MMC London Fund, an early-stage co-investment fund, supported by £14m of ERDF funding, offering pure equity investments with a target average £650k ERDF investment per business (including follow-on funding). The fund has made 15 investments to date, with around £9m invested.

Although relatively early in the process, the fund appears to be performing well. Demand has been high, with less than 1% of applicants securing funding. There has been some degree of uplift in the value of the portfolio to date, such that overall valuation is currently at 109% of the investment made. The fund has also leveraged 5 times the public-sector funds invested (including follow-on rounds), and is on target to exceed the 100% return target for the fund (albeit this is still at a relatively early stage).

The fund is already close to hitting its target of 18 businesses assisted and has already exceeded its job creation target.

The fund cannot invest if the allocation could be taken by a private partner, meaning that the additional investment has been crowding in further investment (on a pari passu basis) rather than crowding out.

A number of national initiatives have also had a significant impact on the early stage funding landscape in London. These include:

- **The Angel Co-Fund.** This £100m Fund was launched in November 2011 with a grant from the Regional Growth Fund. The aim has been to invest between £100k and £1 million in high potential businesses, and to leverage significant co-investment from business angels. It invests in both early and later stage businesses. The latest monitoring data indicates that a total of £49 million (including investment by co-investors to the ACF) has been invested in London, in 22 companies. This represents more than half of the total national investment made by the fund. Regeneris Consulting do not have access to regional data on leverage but at the national level to date £3.80 has been levered in from business angel syndicates for every £1 invested by the ACF itself. At this stage it is clearly too early to judge the level of returns – the data available to Regeneris Consulting is at the national level, which states that one exit has been achieved at a 3 times return.

- **Enterprise Capital Funds** were originally set up in 2005 as a government-backed scheme with the aim of investing up to £2 million in early stage companies. ECFs operate as private companies that back private capital with Government-guaranteed leverage. The limit on the amount that ECFs could invest into any one fund was £25m, which has recently been increased to £50m. The ECFs are typically UK-wide Funds, although regional funds have been supported. The latest monitoring data shows that 81 investments have been made in London to date, with a value of £98 million (including co-investment). This represents around 40% of the total funding invested to date.
- **UK Innovation Investment Fund**. This Fund provides capital for existing venture capital funds, with a total capital of £330 million (of which £150m has come from the UK Government and £180 million has come from the private sector). It is targeted at small businesses with growth potential and new ventures in the digital, life sciences, clean technology and advanced manufacturing sectors. Regional data is not available for this fund.
- **Aspire Fund**. No regional data is available.
- **Tax incentives.** Collectively tax incentives are the biggest intervention in the UK equity market by value. The Enterprise Investment Scheme (EIS) provides 30% tax relief for investors making an investment of up to £1m in any tax year. SEIS is a derivative of EIS, which aims to encourage seed investment in early stage companies. Investors receive tax relief of 50% on investments up to £100k and Capital Gains Tax exemption on any gains in SEIS shares. ONS data based on HMRC returns shows that a total of £1.2 bn has been invested through the EIS scheme in London, in 2,400 companies over 2009-12, an annual average of around £390 million. This is equivalent to £2,000 per SME employer in London, which compares to the England average of £650. There appears to be a general consensus from the consultations that these initiatives have had a strong impact in bringing forward investment from business angels and High Net Worth Individuals in the early stage arena.

Again, alternative funding sources have also played a role in this market, including equity based crowdfunding platforms. These are much smaller in scale than P2P platforms: the latest review of the UK market found that equity based crowdfunding amounted to £28 million nationally, representing very strong growth from the estimated £4m in 2012 (the average amount of money raised was £199,000). The data suggests that these routes have had strong penetration in London to date. Reward-based crowdfunding (where individuals donate to fund a project with the expectation of a non-financial reward in the event of its success) has also had good penetration in London, according to the same report.

Whilst these platforms may play some role in early stage finance in the region, the view – supported by consultations across the country – is that they are very unlikely to serve all of the needs of early stage companies. Some of the consultees have made the point that mechanisms are well suited to project finance but much less well suited to building new, innovative businesses, given the need for a longer term commitment of funds through several rounds of funding and the potential for significant dilution for the initial investors. Further, given that these forms of financing are at an embryonic stage there remains potential for significant levels of write offs to come through from the investments made to date, which would impact on the reputation of the platforms.

1.5.3 Expansion equity

The BVCA also publishes data on later stage growth deals completed in the region (privately and publicly backed). According to this data the level of investment has varied greatly over 2007-13 between around £200m - £600m, exceeding this once, reaching £830m in 2010. The number of firms invested in has fluctuated between around 60-130. Across most years, London has accounted for around 30-50% of all UK expansion capital investment.

While there are no London-based public-backed funds operating in this space, there are a number of UK wide initiatives supporting this activity. These include the following.

- **The Business Growth Fund (BGF)** was set up in July 2012 and is backed by a syndicate of banks with £2.5 billion of capital – it focusses on growth equity and mezzanine finance, offering £2m-£10m. It is designed to be an evergreen fund. Published data on the Fund's portfolio indicates that £64 million investment has been made across 11 businesses in London to date (average investment of £5.8m, compared to an average investment

of £5.6m in England). This supports comments from stakeholders that the Fund is investing in larger propositions in the £2m-£8m range.

- **Enterprise Capital Funds** can also invest in later stage businesses. The latest monitoring data was presented earlier under the early stage section.

There are several mainstream players in this market with a base in London, however the consensus view expressed through stakeholder consultations is that, like the Business Growth Fund, these mainstream players tend to have been concentrating on supporting fewer, larger deals that are de-risked. Indeed some consultees, nationally, have suggested that the upper limit of the growth equity gap has therefore increased in recent years to up to at least £5 million, yet few public-backed funds are supporting up to that level (only Business Growth Fund).

An overall summary of the key sources of supply of finance to SMEs is provided below. It should be noted that there are significant overlaps between the sources (for example, EfG backed lending is a subset of total SME lending; some funding sources will have provided co-investment for others; data on equity investment includes ERDF-backed investment). Nonetheless, it gives a useful summary picture of the supply side in London.

Table 0.6: Summary of Key Sources of SME Finance Supply in London (England averages in brackets)

	Average annual value of Investment, £m	Average value of investment made, £000s	Value per SME, £	% change in value 2011-13
Debt				
New loans to Small Businesses (BBA data)	£1,517	£99 (£82)	£8,100 (£7,300)	7% (-12%)
New loans to Medium sized businesses (BBA data)	£3,087	£347 (£295)	£16,400 (£11,300)	-3% (1.5%)
New overdrafts approved for Small Businesses (BBA data)	£342	£14 (£16)	£1,800 (£2,100)	2% (-25%)
New overdrafts approved for Medium sized businesses (BBA data)	£457	£81 (£81)	£2,400 (£2,200)	9% (-5%)
Enterprise Finance Guarantee backed lending (Business Bank)	£59	£113 (£100)	£312 (£336)	NA
Start-up Loans (Business Bank)	£13	£6 (£9)	£67 (£65)	NA
Business Finance Partnership & Investment Programme (Business Bank)	£144	£292 (£206)	760 (£502)	NA
ERDF backed debt (MCIS)	£0	£0 (£83)	£0 (£41)	NA
Equity				
Early stage equity investment (BVCA)	£104	£1,000 (£1,100)	£550 (£356)	-22% (24%)
Expansion equity investment (BVCA)	£408	£6,300 (£4,800)	£2,200 (£1,150)	-56% (-62%)
Angel Co-Fund (Business Bank)	£17	£2,220 (£1,800)	£90 (£30)	NA

	Average annual value of Investment, £m	Average value of investment made, £000s	Value per SME, £	% change in value 2011-13
Enterprise Capital Funds (Business Bank)	£13	£1,200 (£1,300)	£70 (£27)	NA
ERDF backed equity (MCIS)	£3	£360 (£399)	£10 (£59)	NA
Enterprise Investment Scheme (EIS) (HMRC data)	£388	£490 (£345)	£2,000 (£650)	84% (66%)
Business Growth Fund	£19	£5,800 (£5,600)	£120 (£77)	72% (46%)
Equity-based crowdfunding (NESTA)	£13	NA	£70 (£26)	NA
Other crowdfunding (reward-based, donation) (NESTA)	£11	NA	£60 (£35)	NA

Source: BBA, BVCA, NESTA, HMRC, BGF. Note: a detailed explanation of the sources and coverage of the data is provided in Appendix

1.5.4 Performance of ERDF backed funds

London lacks the same track record of a number of other regions in delivering large scale public backed SME finance interventions over the last two decades, however a number of funds were previously supported by LDA, including the London Technology Fund, Creative Capital Fund and the Capital Fund.

Under the current round of ERDF funding (2007-13), only one fund was supported: a £14m ERDF investment in the MMC London Fund (delivered by MMC Ventures and with Funding London operating as the Holding Fund). The fund was developed drawing on experience from within London as well as drawing on the experience from other areas, and built upon the identified market gaps from a 2013 study (SME Finance in London; SQW and Middlesex University London). The fund targeted early stage venture capital, aiming for an average investment size of £650k, but with at least £3 co-investment for every £1 invested (which in practice has been closer to £5 co-investment for every £1 invested to date).

Key lessons identified by Funding London include the following:

- There was felt to be a need for a fund of sufficient scale, rather than several fragmented funding pots, in order to ensure higher quality fund managers to be appointed, leading to higher quality investments and the ability to follow-on funding.
- With significant market failure gaps and only a limited sum of public funding to address these, it was felt to be important to utilise money in a way that would maximise leverage of additional funding – hence a co-investment approach was seen as beneficial.
- In order to ensure the highest quality investments, it was felt that the fund should not be too tightly focused on specific sectors, and so the focus for investments is fairly broad.

In addition, GLA has recently (December 2014) launched a new £25m Seed Co-investment Fund. The fund will co-invest alongside a number of competitively selected players in the early stage investment community into Digital, Science and Technology businesses based in London, investing between £250k - £1m.

The experience gathered by Funding London provides a good base to build on as the region develops financial instruments for the 2014-20 programme. In addition, the strong finance ecosystem in London, including a large number of private providers (which may be potential delivery bodies for public-backed

schemes), a strong network of corporate finance advisors, and a number of active micro-credit groups, will further support future delivery of ERDF-backed financial instruments.

1.6 Implications for Future Public Sector Backed Funds

This section brings together the results of the preceding analysis to draw out the high level implications for future public sector backed SME finance schemes during the 2014-20 programming period in the region. This is done with reference to the area based market assessment framework presented in the main report. **The final two steps of the market assessment framework will be completed as part of the block two element of the ex-ante assessment.**

The assessment against the steps in the framework is provided in the table below.

	Micro Loans	Early Stage VC	Debt for Growing, Established SMEs	Expansion Equity for Established SMEs
Step 1 - Demand and Supply Characteristics	• 805,000 microbusinesses in London (including 182,000 sole traders and 469,000 unregistered businesses) • Start-up rates almost double the England average, and rising year on year 2009-12, although survival rates worse than other areas. • Region performs strongly on enterprise indices (GEM) • Banks primarily investing at levels above microloans. Microbusinesses particularly hit by tightening in bank lending criteria • Very strong take-up of national start-up loans fund in London, and supply of finance from CDFIs • Compared with other regions however, supply of finance from CDFIs is low.	• Greatest number of university spin-outs of any region 2000-13, esp. from Imperial and UCL, also high levels of HERD spend in London • ICT and Medtech are two major areas for early stage investment and strongly represented in London (Tech City, MedCity) • More early stage venture capital investment than any other region but £50m less p.a in recent years than 2007-09 • Strong Angel investment base and take-up of SEIS / EIS • Recent increase in new VC funds for tech firms • Strong take-up of national funds inc Innov Inv Fund, Business Angel Co-inv Fund, Enterprise Cap Fund • Crowdfunding small but growing.	• 34,000 established SMEs in the region (29,000 small and 5,000 medium sized) • Growth in stock is more then double the England average over 2010-13 • London business survey suggests demand for debt finance higher than in other regions • Region affected (like others) by contraction of bank lending, esp. overdrafts • London businesses perform worse than other areas in securing debt finance esp for small businesses • P2P seen strong growth; future uncertain	• 34,000 established SMEs in the region • London has the largest number of high-growth firms with turnover £2.5-100m of any English region, and number is growing year on year. • MedTech and Digital sectors driving demand • London secures more expansion equity than other areas, although investment p.a. down 19% 2007-13 • Mainstream (eg BGF) focussed on larger deals • Equity gap increased
Step 2 – Unmet Demand	• Particular, growing, difficulties amongst micro-businesses in obtaining finance, despite various interventions • Strong demand for microfinance from CDFIs • Theoretical unmet demand c.£8m p.a. (assumes 10% of rejected firms had solid business plans; in addition to existing funds invested)	• Demand high through high levels of University R&D spend and spin-outs, and presence of high tech sectors including digital and medtech • High levels of private angel and VC investment, but still strong take-up of public-backed schemes, indicating demand continues to outstrip private sector supply. • Current public-backed co-inv fund has seen strong demand. • No clear evidence base to directly quantify potential scale of unmet demand	• Nationally: c.40% of small and 30% of medium sized businesses who are seeking external finance, have problems accessing, significantly higher than 2007/08 • Theoretical unmet demand for debt for established SMEs of c.£230m p.a. (based on 10% rejected firms having solid business plans)	• Nationally: c.40% of small and 30% of medium sized businesses who are seeking external finance, have problems accessing, significantly higher than 2007/08 • Key sectors driving demand for expansion equity • Overall supply however has shrunk over the last six years • Theoretical unmet demand for expansion equity for established SMEs of c.£24m p.a. (based on 10% rejected firms having solid bus plans)

	Micro Loans	Early Stage VC	Debt for Growing, Established SMEs	Expansion Equity for Established SMEs
Step 3 – Market Failure	• Risky investment area that private sector makes limited investment in • Public-backed microloan funds in other areas showing lower than expected default rates • Other sources (e.g. start-up loans) filling some, but not all, of the gap.	• Relatively well established private sector market compared with other regions • Agreement amongst consultees however of a structural long term equity gap at the early stage	• Evidence points towards an exacerbation of market failure in the region in recent years as a result of changing bank lending criteria	• Continuation of LT equity gap for growth capital – gap has potentially increased -> private sector increasing deal values
Step 4 – Persistence of Market Failure	• Banks expected to continue to focus on asset-backed, larger propositions in coming years • Improved economic climate and continued public sector austerity may both lead to greater levels of start-ups and micro-businesses	• New investors have recently come into the market (particularly around digital tech sector), however, demand from investible propositions still outstrips supply, as many investors still more interested in larger de-risked propositions • Based on continued increase in R&D spend and further development of key sectors through activity at MedCity, Tech City etc., demand is anticipated to increase further in coming years	• Some evidence of banks returning to SME market but under continued pressure - highly unlikely to return to pre-crisis lending rates. Other sources e.g. P2P may grow but unlikely to fully fill the gap • Demand likely to continue to increase as recovery from recession continues, meaning demand would increasingly outstrip supply	• Supply of expansion equity has reduced since 2007. • Improved economic conditions likely to support further growing demand
Step 5 – Specific Economic Development Priorities	• The Jobs and Growth Plan for London identifies promoting better SME access to finance in a commercially sustainable way as one of four key priorities for supporting SME growth • £25m of the ERDF allocation to SME Competitiveness in London is provisionally ring-fenced for access to finance interventions • £25m of Growing Places Fund is already allocated to a Seed Co-investment Fund • Strong emphasis on commercialising innovation and development / exploitation of digital technologies by London businesses • Focus on development of Med Tech (MedCity initiative) and digital technologies (linked to growth of Tech City). • **Analysis to be further tested and reviewed as part of Block two work**			
Step 6 – Delivery Capacity	• Holding fund body in place and already successfully managing schemes (Funding London) • Strong finance ecosystem in London, including large number of private providers (potential delivery bodies), strong network of corporate finance advisors, and a number of active micro-credit groups • Points to a strong base for delivery of a fund of funds scheme. • **Analysis to be further tested and reviewed as part of Block two work as potential investment strategy and delivery options are developed.**			

European Investment Bank
The EU bank

Using Financial Instruments in England during the 2014-2020 Programming Period

SME Access to Finance Market Assessment Block Two
Proposed Investment Strategy for the 'London Region' of England

October 2015

Final Report

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1 Proposed Investment Strategy

This Proposed Investment Strategy was developed by the EIB Group with the purpose of assisting the Managing Authority in England, namely the Department of Communities and Local Government (DCLG) and the Greater London Authority[1] (GLA) in the programming of financial instruments under the ESI Funds 2014-2020. This particular 'Proposed Investment Strategy' (PIS) has been developed based upon a detailed review of the Ex-ante Assessment (Block One) undertaken by EIB Group with support from Regeneris Consulting and is intended to be fully consistent with the Common Provisions Regulation Article 37.2 and its requirements. It should be read in close connection with the Block One report and in particular with the 'Area Market Overview' for this region. Furthermore, it has been developed through careful consideration of the input delivered to EIB Group from the local entities and stakeholders operating within the geographical region known as the London Region.

1.1 SME Market Analysis (2014/15) – the Summary of Findings

The main market failures, and potential financing gaps, analysed in the Ex-ante Assessment (Block One) at a summarised national level were found to be as follows:

- **There are significant structural market failures affecting parts of the finance market for SMEs;**
- **Whilst these market failures vary across England to some extent (for example, access to private venture capital can be better for some classes of SMEs in London and the South East for example), they nevertheless exist and restrict access to finance for start-ups and growing SMEs across England as a whole;**
- **The financial crisis has exacerbated these issues facing SMEs, especially in terms of the behaviour of the high street banks which have both reduced their lending overall and concentrated on lending larger amounts to less risky SMEs as part of their strategy of rebuilding their balance sheets;**
- **Survey evidence points to SMEs in England experiencing more difficulties in securing the finance they need for working capital and new investment over the past 3-4 years;**
- **As the economy recovers, the evidence points to an improvement in the level of business start-up, the growth of existing SMEs and indeed an upswing in business confidence, which is feeding into a greater demand for external finance;**
- **As a consequence there is a substantial finance gap affecting SMEs even allowing for the range and scale of public sector backed initiatives that are operating in this space (although many of the existing ERDF backed schemes have now or will cease investing in 2015).**

The Block One report concluded that at a national level and drawing on existing survey evidence, **"around £1.6 billion per year of theoretical unmet demand for external finance from SMEs, assuming on a fairly cautious basis that 10% of the businesses seeking and unable to secure**

[1] The Greater London Authority is the designated Intermediate Body, responsible for the management of European Structural and Investment Fund in London.

finance are viable."

1.1.1 A Regional Perspective

The Block One report went further to provide a more regional perspective and provided an 'Area Overview' for the geographical region known as the London Region. It is not the intention of this report to repeat the detail and findings from Block One but it is important to use those findings to set the context for the Proposed Investment Strategy. This regional perspective provided clear further evidence of market failure and/or sub-optimal investment situations for the region. Firstly, the London Region is a significantly important economic area for England and the region is home to 840,000 SMEs, of which 805,000 (96%) are microbusinesses (fewer than 10 employees), 29,000 are small (10-49 employees) and 5,000 are medium sized firms (50-249 employees). Of the microbusiness stock, 469,000 are unregistered for VAT/PAYE and 18,000 are sole traders.

By using the BIS SBS survey date and then regionalising the findings, the analysis indicates that, assuming the experience of SMEs in the region is similar to those in the UK as whole:

- In 2012 there were around 45,000 SMEs in the region looking for external finance, of which around 34,000 were microbusinesses[2];
- Of these, around 21,000 had difficulties of some sort in obtaining this finance;
- Around 14,000 SMEs obtained none of the finance they were looking for, and around 3,000 received some, but not all of what they were seeking (the national data indicates that the likelihood of successfully obtaining finance varies directly with business size);
- Around 10,000 SMEs had a need for finance but did not apply, for the reason that they thought they would be rejected (there is no further detail available from the survey on specifically why they thought they would be rejected).

The Block One report goes further to suggest "It is possible to use national survey data on the amount of finance being sought by businesses of different sizes to generate indicative estimates of the scale of unmet demand. **This analysis shows that total unmet demand in the region could be of the order of £3.0 billion in one year** (Section 1.4.2 Theoretical Unmet Demand**)**. It is not possible to determine from this type of analysis how much of this comes from SMEs that had viable business plans those that could be supported in such a way that the financial and economic returns to the public sector from doing so would represent value for money, and hence constitute a market failure). However, scenarios on the proportion of firms that might have been viable have been set out below to illustrate the potential scale of market failure. For example, if 10% of these were viable, this would imply unmet demand of:

- Around £8 million per year for microfinance and c. £150 million for larger amounts of finance sought by other micro-businesses;
- Around £13 million per year of unmet demand amongst larger established SMEs.

It should be noted that this is, in effect, the gap over and above that what is already being addressed by JEREMIE and other public sector backed initiatives."

The European Investment Fund[3] (EIF) has been asked to provide its expert input based upon the

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[2] These estimations do not take into account other businesses that were not looking for external finance, but could benefit from further growth should they choose to do so.

abovementioned information sources and utilising its own knowledge and expertise as a major deliverer of financial instrument activities across the European Union and beyond. To undertake this exercise, EIF has analysed the Block One report and Area Overviews, considered input from the EIB's own internal reviews of the first experiences of implementing JEREMIE funds and alongside its own knowledge of implementing similar activities across the EU and in the UK market, undertaken the exercise of delivering a 'Proposed Investment Strategy' after appropriate levels of consultation with the Department for Communities and Local Government, GLA London Enterprise Panel (LEP) and their partners and other stakeholders. This consultation involved meetings held with LEP representatives and local fund managers in April 2015.

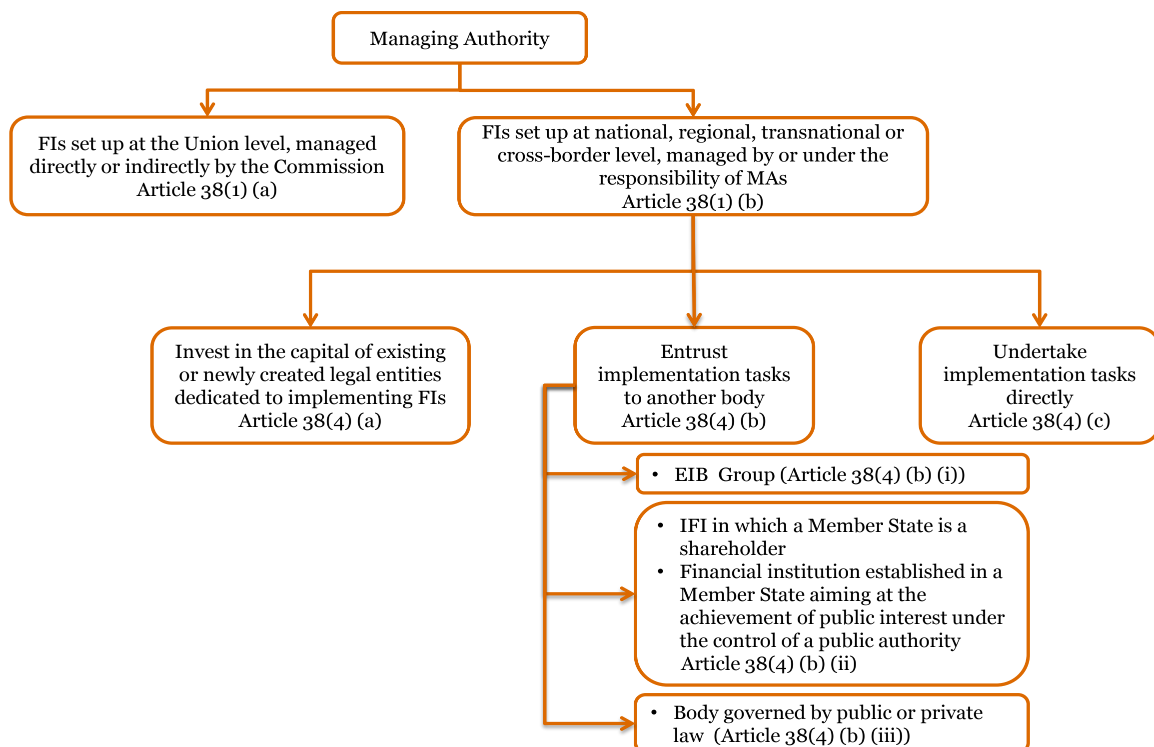
1.2 Proposed Investment Strategy and Implementation Arrangements

1.2.1 Options for implementation arrangements

Article 37 (2) (e) CPR specifies that the proposed investment strategy will include an examination of options for implementation as foreseen by Article 38.

A comprehensive picture of the implementation options for the setting up of a financial instrument, as provided in the general ex-ante methodology[4], is shown in the figure below.

Figure 1: Implementation options for the setting up of an FI



Source: European Commission, EIB, PwC, 2014.

[3] EIF is a specialist provider of risk finance to benefit small and medium-sized enterprises (SME) across Europe. EIF is part of the EIB Group and the shareholders are the European Investment Bank (EIB), the European Union, represented by the European Commission, and a wide range of public and private banks and financial institutions www.eif.org .

[4] "Ex-ante assessment methodology for financial instruments in the 2014-2020 programming period. General methodology covering all thematic objectives. Volume I", European Commission, European Investment Bank, PriceWaterhouseCoopers, April 2014.

The proposed investment strategy includes an analysis of the following options:

A. Implementation options for financial instruments within the meaning of Article 38,
B. Financial instruments on offer,
C. Targeted beneficiaries and the proposed terms of combining financial instruments with grants.

Financial Instruments created centrally at the level of the EU and managed directly or indirectly by the EC - Article 38 (1) (a)

The possibility to contribute ESI funds to centrally launched and managed instruments is a new possibility introduced for the 2014-2020 programming period and is foreseen in Article 38 (1)a).

Figure 2: Article 38 of the new CPR

	Centrally managed by EC	Shared management
Thematic Objective 1 Research, Development & Innovation	Horizon 2020	Instruments under ESI funds *Off-the-Shelf instruments* *Tailor-made instruments*
Thematic Objective 3 Competitiveness of SMEs	Competitiveness & SMEs (COSME)	
Thematic Objective 4 Supporting the shift towards low-carbon economy in all sectors **Thematic objective 5** Promoting climate change adaptation, risk prevention and management **Thematic objective 6** Preserving and protecting the environment and promoting resource efficiency	Life Programme	
Thematic Objective 7 Sustainable transport and network infrastructures	Connecting Europe Facility (CEF)	
Thematic Objective 9 Promoting social inclusion and combating poverty	Social Change and Innovation Creative Europe	
Thematic Objective 10 Education, skills and lifelong learning	Erasmus for All	

Source: PwC Financial instruments in Cohesion Policy 2014-2020: Ex-ante assessment training, June 2014

Apart from the SME Initiative, covered further below, the centrally launched instruments, directly or indirectly managed by the EC, and which most target SMEs, are COSME and HORIZON 2020 (see table above). The implementation of these instruments has been mandated by the EC to EIF. In early August 2014, EIF launched calls for expression of interest with regard to COSME and HORIZON 2020[5], targeting financial intermediaries across the EU involved in lending, the provision of equity

5 See: www.eif.org/what_we_do/news/2014/eu-finance-sme.htm

(venture capital), and others active in SME financing.

Under COSME, EIF will support equity investments as well as lending to eligible SMEs, including at the higher risk early stage and start-ups and, as always, through financial intermediaries. Under Horizon 2020, EIF will issue guarantees and counter-guarantees to interested and selected lending intermediaries for loans to innovative enterprises of between EUR 25k and EUR 7.5m.

These instruments will, therefore, allow financial intermediaries in the UK to apply directly as partners of EIF for SME financing outside of any nationally-launched initiative.

Also at Union level is the EU SME Initiative: a joint instrument, blending EU funds available under COSME and Horizon 2020 and European Structural and Investment Fund (ESIF) resources in cooperation with EIB/EIF, for which a single ex-ante assessment has already been prepared by the EIB Group and issued by the EC. Three implementation options are available: the Joint SME Guarantee Instrument and the Joint Securitisation Instruments for both new and existing SME loan portfolios. It is understood that to date the UK authorities has already declined to contribute to the EU SME Initiative, and therefore this option is not explored in detail.

Table 1: Advantages and disadvantages of FIs managed by the EC

Financial Instruments created centrally at the level of the EU and managed directly or indirectly by the EC	
ADVANTAGES	DISADVANTAGES
• Effectively a delegation of tasks to an entity experienced with using EU structural funds for supporting SME access to finance. • Quicker implementation (selection of financial intermediaries, conclusion of funding agreements etc.). • A centrally managed instrument can contain several compartments and thereby achieve greater critical mass and benefit from certain economies of scale. • There would likely be no need for the managing authority to carry out on-the-spot checks, or any need for the audit authorities to cover either these operations or the associated management and control systems (to be confirmed by DG REGIO). • Allows for relaxing of ESIF eligibility criteria.	• A certain loss of control at the level of the managing authority. • A certain loss of targeting instruments to meet regional market failures and suboptimal investment solutions. • More detached monitoring and controls: the managing authority still remains responsible for the operations, including payments and reporting when contributing to a centrally managed instrument. • Limited synergies between the instruments.

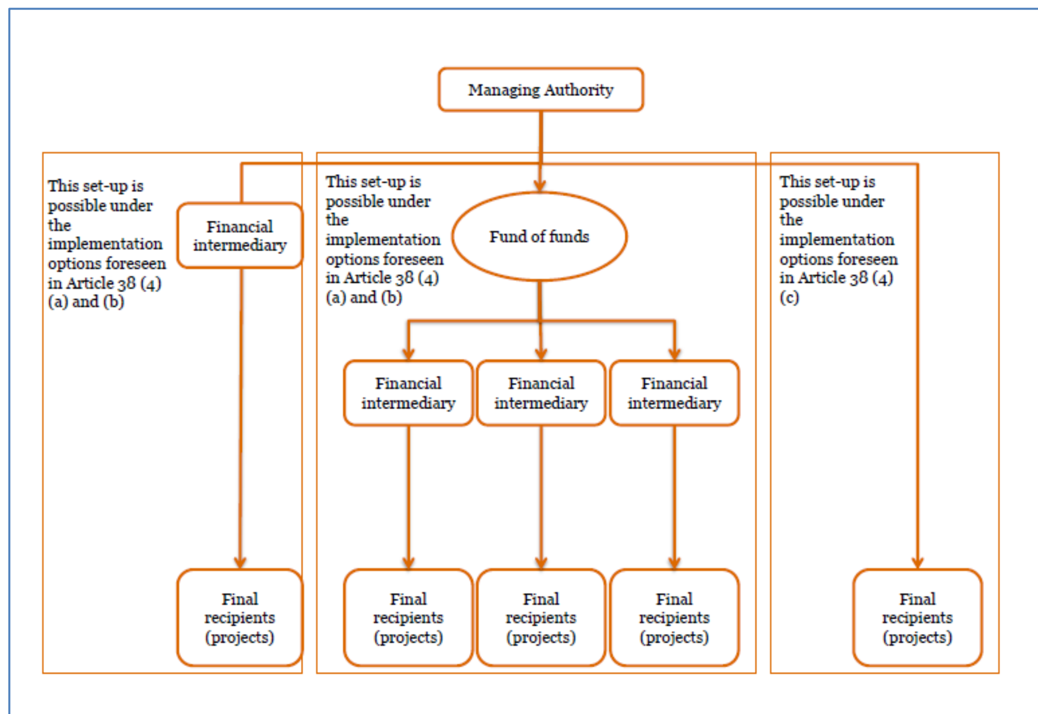
Source: EIB

In the general ex-ante methodology, it is further stated "this choice may be appropriate for instances when the technical capacity and/or the expertise of the MA is considered insufficient or where the critical mass for establishing an FI has not been reached and the existing EU-level instruments are well aligned with the Programme objectives. This option avoids duplicating FIs at lower levels and gives assurance to MAs that resources will be used through tested vehicles and experienced teams." Given the good levels of experience of the relevant authorities in the UK having experience of implementing financial instruments for several decades now and the comparatively mature levels of market infrastructure that exists, it is understandable that a conclusion could be drawn not to utilise the possibility foreseen in Article 38 (1) (a).

Financial Instruments created and managed directly by a managing authority or under its responsibility – Article 38 (1) (b)

The figure below displays the options available under this implementation route.

Figure 3: Implementation options for the governance of FIs



Source: PwC Financial instruments in Cohesion Policy 2014-2020: Ex-ante assessment training, June 2014

The individual options set out in the above figure, which are to be managed under the responsibility of the GLA, are currently being explored. Careful consideration will be undertaken by the GLA in consultation with DCLG to select the best option for London with reference to all the relevant regulations. However, it is fair to say that the previous experience of the 'Fund of Funds' implementation route in the UK has been positive and is considered to have delivered important levels of access to finance for SMEs when implemented with appropriate critical mass factors. The Managing Authority will assess this experience when finalising its implementation choice and could consider the following advantages and disadvantages.

Table 2: Advantages and disadvantages of FIs managed via 'Fund of Funds'

Financial Instruments created via the Fund of Funds mechanism.	
ADVANTAGES	DISADVANTAGES
• Closely managed control by the Managing Authority with effective delegation to an entity acting as manager of the Fund of Funds • Targeted instruments that meet regional market failures	• Potential lack of availability of local expertise in complex regulatory matters. • Speed of implementation may suffer due to learning curve aspects of implementation.

and suboptimal investment solutions • Close monitoring and controls: the managing authority still remains responsible for the operations, including payments and reporting when contributing to a centrally managed instrument. • Build-up of expertise and experience in management activities • Potential to attract additional investors at the FoF Level	• Potential for costs to rise above reasonable levels.

Source: EIF

"Off-the-shelf" instruments

In the case of option B, the MA is also able to use "Off-the-shelf" instruments (outlined in Article 38 (3)(a)). This is a possibility foreseen by the EC, which is working on the development of product specifications for such instruments.

For SMEs, these will consist primarily of:

i) A loan instrument;

ii) A guarantee instrument; and

iii) An equity instrument.

For each instrument, the EC develops term sheets. The declared objective of DG Regio is to ensure the exemption for these instruments from the need for a notification under state aid rules.

Table 3: Advantages and disadvantages of the "Off-the-shelf instruments"

Off-the-shelf instruments	
ADVANTAGES	DISADVANTAGES
• Benefit of defined product terms for convenience and speed of implementation; • Oversight over implementation terms and conditions; • These would represent clear examples of what the EC perceives as suitable financial instruments for ESI funds.	• Even if the these instruments have been developed on the basis of EC experience from the 2007-2013 programming period, certain new parameters envisaged for these instruments are yet to have been deployed; • To be assessed whether the off-the-shelf instruments are able to cater for any potential national or regional specifics. The instruments would also need to potentially be adjusted for any local jurisdiction requirements; • Lack of assurance on the possibility of exemption from notification requirements under State aid rules, meaning that notification cannot be excluded.

Source: EIB

Most of the financial instruments (FIs) currently or previously available in UK, with perhaps the exception of the previous regional JEREMIE instruments, are, or have been, implemented by public institutions of a centralised nature. This is a perfectly understandable position to take and does

entail certain advantages. However, after several reviews and considerations, a major rebalancing of responsibilities for economic development between central and local government, and between government and the private sector took place. As a result, 39 Local Enterprise Partnerships (LEPs) have been formed across England with a key role to drive local development priorities. It is therefore entirely understandable that the most appropriate delivery model for financial instruments within the ESIF 2014-2020 period is the one that is most closely aligned to the local economic development infrastructure, namely Article 38 (4) (b).

1.2.2 Proposed financial instruments, target market and target final recipients

Given the above, it is therefore entirely appropriate that when considering the financial instruments to be utilised within a PIS for the region known as the London Region, that EIF has taken inputfrom representatives from the region assigned to consider this important subject area. These representatives have significant and valuable localised knowledge of the issues facing their region and often have directly relevant experience of ESIF financial instrument implementations. EIF has therefore sought and considered their views in reaching these conclusions. A number of key stakeholders have been consulted in this process either by Regeneris or by EIF[6].

1.2.2.1 Proposed financial instruments - Summary

On the basis of the above analysis and consultation process and pursuant to the priorities established in the relevant Partnership Agreement and the Operational Programme, a Fund of Funds structure including underlying FIs is proposed to be deployed in the new programming period in the London Region, whilst maintaining the ability to adopt subsequent for re-allocations between financial instruments, depending on the actual implementation experience and economic circumstances.

Table 4: Financial Instruments – Programming Period 2014-2020 – London Region

Financial Instrument	**Proposed contribution £ m and ranges**	**Funding Source & Other Aspects**
Co-Investment Fund (Seed Stage Focus)	£25m Investment range between £50,000 and £2m with the possibility to follow-on above that upper threshold by way of exception.	This Fund is expected to be focussed on start-ups or early stage enterprises. It will operate as a co-investment fund investing alongside other selected investing parties.

[6]Jenny Tooth, UK Business Angels Association; Simon Menashy, MMC Ventures; Laurie Wiseman, East London Small Business Centre; Nicholas Nicholaou, GLE One London; Valerie Joliffe and Peter Chapman, members of the MMC London Fund Investment Advisory Committee.

Venture Fund (Series A Focus)	£20-25m Investment range between £100,000 and £2m with the possibility to follow-on above that upper threshold by way of exception.	This Fund is expected to be generalistic in nature but focus on the nine sectors of strategic importance to the London economy.
Debt/Loan Fund (Small Loans Focus)	£20-25m Loans expected to range from £50,000 to £250,000 in size.	This Fund[7] is expected to be generalistic in nature and provide loans to enterprises seeking debt facilities to expand their business.
Mezzanine Fund (Larger Loans Focus)	£25-30m Loans or mezzanine facilities expected to range from £250,000 to £750,000 in size.	This Fund is expected to be generalistic in nature and provide loans to enterprises seeking debt facilities to expand their business with larger requirements.
Microloan Fund	£5m Loans expected to range from £10,000 to £50,000 in size[8].	This activity will be focussed on microenterprises and create a portfolio of loans for new, young or established enterprises. Beneficiaries of this fund could also benefit from 'advisory business support' through appropriate grant mechanisms to increase the prospect of sustainability of these businesses.
TOTAL[9]	**Approximately £100m**	**The overall size of these instruments is estimated on the assumption that the implementing model will benefit from EIB Lending.**

Source: EIF

The overall sizing of approximately £100m is considered both suitable and implementable given the economic size of the region and relevant previous experience. The proposed five sub-funds also creates a balanced portfolio construction that delivers sufficient diversification and retains critical mass within each sub-fund. Should the overall sizing fall below the figure shown here, alternative implementation methods may need to be explored. If the critical mass falls below the threshold communicated by EIB, either other forms of financing needs to be attracted, or a review of the size and number of underlying instruments will need to be undertaken.

This portfolio of instruments is best structured as a Fund-of-Funds (FoF) structure for the implementation of these instruments which offers the significant added value of combining the contributions from ESIF alongside a possible loan arrangement with a provider such as the EIB. The FoF approach enables a diversification of risk which is an important element in the process of attracting EIB financing. It is considered that no commercial bank would be willing to undertake such a financing arrangement on the same terms and conditions as EIB (especially when such FoF structures involve a mixture of equity and debt activities in the underlying instruments).. Such financing brings significant advantages but requires careful and financially disciplined implementation to ensure repayment via a diversified portfolio. Whilst some instruments are similar in nature they are not identical and are intended to co-exist in a complimentary manner whilst

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[7] The term 'fund' is used here in a generalistic way. EIF's own review of debt funds highlights that different implementing models exist and it would be wise not to be too prescriptive at this stage. http://www.eif.org/news_centre/publications/eif_wp_25.pdf

[8] The Block One report states that in the UK that 'Overall for CDFI loans, the average size for an existing microenterprise loan was £21,000, whereas for a start-up business it was £10,500'. For the London region, this average may be misleading.

[9] Management costs impact not considered in the total.

enabling the flexibility to reallocate capital should any particular instrument face difficulties in the implementation process or underperform. It is further expected that an experienced implementing entity will be selected/procured to undertake the role of manager of the FoF working closely with the GLA and the EIB in this process. It would also be expected that any regional FoF structure such as this will require appropriate governance structures to ensure implementation is completed as planned. When selecting entities for this role, the MA must consider the relevant Articles (Articles 7 (1) and (2)) in the Commission Delegated Regulation (CDR) EU No 480/2014 and further guidance via the EGESIF process, in particular, when referring to the 'legal, financial, economic and organisational capacity' of the body being considered.

In the paragraphs below, there is a short form explanation of each instrument that is proposed to become a constituent part of the overall PIS. Specific State Aid considerations for each instrument will be considered in detail at a later stage before any tender or selection process begins by the implementing FoF manager but are mentioned where relevant below. In principle, it is expected that all instruments will be either state aid free or fully compliant with the relevant state aid schemes. No additional state aid notification processes are to be expected.

Instrument One – Co-Investment Fund GBP 25m (Seed Stage Focus)

The Block One report and the Area Market Overview have highlighted the ongoing Financing gap which illustrates the continued shortage of early stage equity capital, particularly at regional level. This instrument targets this market failure and is expected to be implemented by an experienced Fund manager with the skills, track record and local network to develop a strong portfolio of equity investments in start-up or young enterprises. The selected Fund Management team will also be expected to commit between 1 and 3% of the fund size from personal sources or suggest similar mechanisms in order to ensure full alignment of interest and therefore respecting normal market practices and to be consistent with the General Block Exemption Regulations No 651/2014[10]. Any additional investors to the fund would be considered a further advantage and the normal market standards of a limited partnership would be expected to be adopted wherever possible.

This fund would be expected to create a portfolio of equity investments ranging £50,000 to £2 million whilst retaining a certain percentage of capital for follow-on investment purposes. Should a particularly successful portfolio company require investment above this £2m threshold, this would be possible with the prior agreement of the appropriate body within the governance structure. Given the expected fund size, seed stage focus and the normal market practice of retaining up to 40% of the capital for follow-on investments[11], and on the assumption that an average deal size will be in the range of £100,000 – £150,000, a portfolio in the range of between a 100 and 150 investments could be expected. Any larger level of diversification than this may lead to an unsustainable situation.

Due to the evidenced comparative strengths of this region in certain sectors, it is advisable that this Fund has a focus on the Digital, Technology, Science and Creative sectors and whilst not being limited to these areas, the selected Fund Management team would need the appropriate skills and

[10] Article 15 (b) states that the fund manager(s) 'shall receive a remuneration linked to performance, or shall share part of the investment risks by co-investing own resources so as to ensure that their interests are permanently aligned with the interests of the public investor'.

[11] EIF is one of the largest European Fund of Fund investors with over 500 investments made into Private Equity and Venture Capital investors. The 40% figure mentioned here is based upon actual evidence from within that portfolio and reflects normal market practice.

experience to make this a success (or a viable sub-contracting proposal).

Instrument Two – Venture Fund £20-25m

The Block One report and the Area Market Overview have highlighted the ongoing Financing gaps which illustrates the continued general shortage of equity capital, particularly at regional level. This instrument targets this market failure and is expected to be implemented by an experienced Fund manager with the skills, track record and local network to develop a strong portfolio of equity investments in high growth enterprises. The selected Fund Management team will also be expected to commit between 1 and 3% of the fund size from personal sources or suggest similar mechanisms in order to ensure full alignment of interest and therefore respecting normal market practices and to be consistent with the General Block Exemption Regulations No 651/2014[12]. Any additional investors to the fund would be considered a further advantage and the normal market standards of a limited partnership would be expected to be adopted wherever possible.

This fund would be expected to create a portfolio of early stage (Series A) equity investments ranging from £100,000 to £2 million whilst retaining a certain percentage of capital for follow-on investment purposes. Should a particularly successful portfolio company require investment outside of these lower and upper thresholds, this would be possible with the prior agreement of the appropriate body within the governance structure. Given the expected fund size and the need to retain up to 40%[13] of the capital for follow-on investments, a portfolio in the range of 20-30 investments could be expected. Any larger level of diversification than this may lead to an unsustainable situation.

Instrument Three – Debt/Loan Fund £20-25m (Smaller Loans)

The Block One report and the Area Market Overview have highlighted the ongoing Financing gaps which illustrates the continued general shortage of debt finance which has been particularly affected by the impact of the recent credit crisis at national and at regional level. This instrument targets this market failure and is expected to be implemented by an experienced Fund manager with the skills, track record and local network to develop a wide portfolio of loans expected to range from £50,000 to £250,000 in size. Dependent upon the implementation model proposed by the applicant, different forms of ensuring alignment of interest will need to be considered.

Such a fund should be focussed on enterprises that have faced difficulties to attract such financing from more established routes and where this debt financing will enable expansion plans to be undertaken. No sectorial requirements are required for this activity but certain sectorial exclusions are likely to be required for ESIF and EIB compliance reasons. With loan sizes expected to average in between £125,000 – 150,000 per enterprise and only a limited expectation of follow-on financing, a portfolio of up to 100-150 loans could be anticipated giving a good degree of diversification. This instrument has a proposed loan size range and average expected loan size based upon current experience of a successful implementation in the London Region that gives evidence that a focussed financial intermediary can give positive results in terms of absorption and returns.

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[12] As before.

[13] As before.

Instrument Four - Mezzanine Fund £25-30m

The Block One report and the Area Market Overview have highlighted the ongoing Financing gaps which illustrates the continued general shortage of debt finance which has been particularly affected by the impact of the recent credit crisis at national and at regional level. This instrument targets this market failure and is expected to be implemented by an experienced Fund manager with the skills, track record and local network to develop a wide portfolio of larger loans expected to range from £250,000 to £750,000 in size. Should a particularly successful portfolio company require a loan size above this upper threshold, this would be possible with the prior agreement of the appropriate body within the governance structure. Dependent upon the implementation model proposed by the applicant, different forms of ensuring alignment of interest will need to be considered.

Such a fund should be focussed on enterprises that have been unable to attract such financing from more established routes and where this debt financing will enable expansion plans to be undertaken. No sectorial requirements are required for this activity but certain sectorial exclusions are likely to be required for ESIF and EIB compliance reasons. With loan sizes expected to average around £500,000 per enterprise and only a limited expectation of follow-on financing, a portfolio of up to 60 loans could be anticipated giving a good degree of diversification.

Instrument Five - Microloan Fund £5m

The Block One report and the Area Market Overview have highlighted the ongoing Financing gaps which illustrates the continued general shortage of microfinance which has been particularly affected by the impact of the recent credit crisis at national and at regional level. This instrument targets this market failure and is expected to be implemented by an experienced manager with the skills, track record and local network to develop a wide portfolio of such loans expected to range from £10,000 to £50,000 in size. The Block One report states that overall for CDFI loans, the average size for an existing microenterprise was £21,000, whereas for a start-up business it was £10,500

Such a fund should be focussed on enterprises that have been unable to attract such financing from more established routes and where this debt financing will enable expansion plans to be undertaken. No sectorial requirements are required for this activity but certain sectorial exclusions are likely to be required for ESIF and EIB compliance reasons. This is a work intensive process and with loan sizes expected to average around £35,000 per enterprise and only a limited expectation of follow-on financing, a portfolio of up to 150 loans could be anticipated giving a good degree of diversification which is necessary

It is worthy of note at this point the context within which these instruments are to be implemented locally. Firstly, as the Block One report has identified, the assessment of market failure has been taken alongside any existing instruments or activities currently available at either a national or regional level and hence the proposed instruments are to be seen as supplementary to all other activities. Having stated this fact, it is important that any party responsible for the implementation considers any potential overlap of instruments and possible communication confusion that may occur. It is expected that this instrument would operate under the relevant Commission Regulation 1407/2013.

1.2.2.2 Target market

As illustrated, there are clear benefits for the financial instruments to be set up at a regional or multi-regional level through a fund of funds, thereby ensuring their cohesive, effective implementation, critical mass, and efficient deployment in the targeted regions and group of regions. It is logical to assume that regional experience, relevant expertise and local knowledge are important assets in the implementation. Additionally, the Block One report Area Overview has given some insight into the industries and sectors where this region has established a degree of comparative advantage which creates a good foundation to be built upon and therefore involvement of the appropriate skill sets in sectors of comparative advantage is considered an important success factor.

1.2.2.3 Target final recipients

As recognized in the general ex-ante methodology, predefining final recipients of future financial instruments "can be particularly challenging on a time horizon of up to ten years (i.e. the duration of the eligibility period, running until 31 December 2023), especially in some sectors such as microcredit. Therefore, the proposed investment strategy should set a target for the final recipients, leaving room for changes (e.g. sectors of industry classified as innovative may develop over time) and be sufficiently prudent when selecting the financial product. Indeed, during the implementation phase, a reasonable level of flexibility can be beneficial to the effective disbursement of the funds."

From gathered implementation experience, being too prescriptive in the definition of targets can lead to implementation difficulties and limited market impact and hence a more general and flexible approach is advised as long as the target final recipients of the proposed FIs are still within the EU definition of SMEs.

1.2.3 Envisaged combination with grant support

Eligibility rules under the ERDF-funded FIs in the 2007-2013 period did not allow for the combination of FIs and grants for the same eligible expenditure. This was seen as a problem by the Member States, especially given the difficulties faced by grant beneficiaries to secure the pre-financing or co-financing necessary to implement investment projects.

Whilst pre-financing will continue to remain ineligible, in the 2014-2020 programming period the CPR allows a combination of grants and FIs, as detailed in the EC's Short Reference Guide: "For the combination of ESIF financial instruments with ESIF grants or other assistance, there are two possibilities.

- Firstly, it will be possible for certain types of grants (interest rate subsidy, guarantee fee subsidy or technical support as specified in Article 5 of the Delegated Act) and financial products to be combined within the same operation and to be treated as a financial instrument. Other types of grants cannot be presented under a single financial instrument operation.
- Secondly, it will be possible for the grant operation and financial instrument operation

support to be combined to finance the same investment at the level of final recipient, however as separate operations.

- The overall guiding principle for all cases is that the same expenditure cannot be declared twice to the Commission. Grants shall not be used to reimburse support received from financial instruments and financial instruments shall not be used to pre-finance grants."

In the case of the London Region in particular, practical examples of FI/grant combinations that could be considered could include:

- Creation of a supporting infrastructure for new enterprises and first-time borrowers as SMEs in terms of investment readiness (such as mentoring; legal advice etc.).
- In particular, a combination of a micro-grant and a microloan in the case of first time entrepreneurs, as this will greatly improve the sustainability of the business and the instrument.

In the instruments proposed, one of the issues raised by grant-FI combination is the compliance with state aid/de minimis aid cumulation rules. Final recipients may have the option to benefit from a grant and also from co-financing ESIF-funded loans, as long as the total aid intensity thereby provided does not breach the maximum intensity allowable under state aid rules. FIs and grant combination options could be even predefined at the instrument design stage, either by imposing certain structures derived ideally from the de minimis, or from the GBER rules for ease of implementation.

1.3 Lessons learnt

The Lessons learnt from the use of FIs have been developed in the Block One report. However, another overview is provided in the following section to complement the PIS.

1.3.1 The relevant past experience

The implementation of financial instruments in the 2007-2013 programming period was undertaken only to a limited extent across the European Union. Yet, given that SMEs were the main recipients of the instruments, exiting implementation processes provided sufficient experience to draw some lessons to be considered for the purpose of this document and for reflection by the MA before implementation of new activities begin.

1.3.2 Lessons Learnt

1.3.2.1 Lessons learnt – UK specific

Whilst the UK has significant experience of setting up and implementing a variety of financial instruments, a new type of structure was developed with EIB Group and implemented with four different regional authorities in the 2007-2013 period. This new structure involved EIB lending to the regional structure to boost the critical mass of capital alongside allocated ERDF funding. These 'leveraged' JEREMIE Holding Funds were implemented in Wales, the North West, the North East and the Yorkshire & Humberside region. As this was a new concept, understandably the EIB looked closely for any lessons that could be learned from the process and undertook an internal mid-term review. From this exercise, certain lessons were learned which have influenced the views of EIB and

hence impacted certain aspects of the PIS for the 2014-2020 period. These can be briefly summarised as follows:

- In order to ensure an appropriate diversified investment strategy is adopted for such structures to be in a position to meet loan servicing contractual obligations, a minimum critical mass of such structures is required. EIB estimates this to be at least GBP 100m.
- In order to ensure an appropriate level of predictable reflows from the underlying financial instruments in order to service the debt element of these structures, at least 50% of the capital is required to be allocated to coupon-bearing or similarly predictable financial instruments.
- In order to maintain the overall critical mass of capital in the structure dedicated to be invested into financial instruments, any expected management fees and similar costs need to be covered by sources of funding outside of the structure itself. This is to ensure that costs do not erode the critical mass of funding available for the underlying funds and hence reduce diversification and the ability to generate repayments.
- In order to maintain the required levels of implementation diligence and timely focus on deliverables, appropriate levels of independent corporate governance will be required.
- In order to respond to differences in implementation success of the underlying instruments and to accommodate any unforeseen changes in economic conditions, a flexible approach to capital allocation at the Fund of Funds level is to be recommended wherever possible.
- In order to avoid any unintended difficulties in the implementation and resultant utilisation of capital commitments within the underlying instruments, the central authorities are asked to consider carefully the impact of any national initiatives.

Additional feedback received directly from financial intermediaries involved in the implementations in the current programme includes the following points, some of which have been rectified within the new regulations for the 2014-2020 period:

- The biggest factor perceived at limiting the impact of the existing activities has been the sector restrictions imposed on the investment scope. In particular, the exclusion of the 'retail' and 'business to customer (B2C)' sectors has hindered the provision to a greater number of enterprises.
- The restriction preventing investments that are categorised as 'management buy-outs' are regarded as further limiting factors.
- The formal EC definition of SMEs can be too restrictive with the upper limits on medium-sized enterprises preventing investments that are needed.
- The ESIF period end dates prevent the possibility to create follow-on investments into successful businesses thereby undermining the potential to create positive returns to investors[14].

[14] Now resolved under the ESIF Regulations for 2014-2020 period.

1.3.2.2 Lessons learnt - general

Clear, market-oriented and flexible eligibility rules

At a higher level, it should also be noted that the implementation of the financial instruments at the very outset of the previous programming period 2007-2013 had been impeded by the initial lack of clear regulatory provisions related to the implementation of financial instruments under Structural Funds. The publication of a comprehensive COCOF guidance note on the implementation of financial instruments in 2011 clarified the majority of questions relating to the eligibility of expenditure. It was later amended (in 2012) to address the urgent need for financing on working capital, which for instance continues to remain the bulk of demand in the current economic context.

The new regulatory framework for the 2014-2020 period, generally represents an acceptable basis for the future implementation of decentralised financial instruments. However, the following principles are to be carefully considered in all future implementations.

Flexibility

Given that eligibility and state aid rules may hamper final recipients in benefitting from FIs, it is important to limit the eligibility rules only to the strictly necessary ones, and to try and preserve for the instruments as much flexibility in meeting demand as possible. It is also important to allow for an easy re-allocation of resources from the non-performing to performing instruments, by grouping them under a fund of funds structure at regional or national level.

Suitability of the selected FIs

The role of the FIs in the deployment of funds is crucial to maximise such benefits of instruments portfolio as: utilisation of public resources, leveraging of private resources and investors, deployment of the instrument in accordance with the contractual obligations to ensure transfer of benefits to the beneficiaries with transparency, accountability and compliance with national legislation and EU regulations. The selection of the FIs should be carried out in the framework of all the above with full impartiality, and on the basis of a thorough assessment that includes technical expertise and know-how.

Availability of funds

During the previous programming period, all funds were available at the beginning of the operations. This ensured that the HF manager could enter into agreements and deploy financial instruments of varying risk profiles and of duration exceeding the programming period. This could be achieved without any additional conditions that could reduce the benefits transferred to the final beneficiaries, diverge from market practice, or trigger additional legal provisions. In the 2014-2020 period, the new concept of tranching of ESIF payments presents an additional operational aspect to the implementation of FIs which has to be carefully considered.

Combination with grants

As the new regulations allow to combine grants with financial instruments, it is up to the implementing bodies to decide if grants and instruments should work as an embedded or connected product(s) and potentially be managed by the financial instruments manager, or if the grant element would better work as an external component to be managed separately (perhaps in collaboration with a grant focussed authority).

Appropriate evaluation of financial results

An accurate evaluation of the results of financial instruments can only be made after the instruments have been wound down, returns fully generated and any losses have been incurred, and the equity funds have closed. It is well known that such instruments have a slow start and most equity gains or guarantee portfolio losses occur towards the end of their lives. Furthermore, the indicators used in the FIs evaluation must be different from those used in grant evaluation.

Capital Relief

In the course of implementation of certain debt instruments under the previous programming period, the intermediaries expressed interest in the applicability of regulatory capital relief under guarantee and debt products. The provision of regulatory capital relief should be carried out in a way that is compatible with national legislation and capital markets regulatory framework in close connection with legal experts and the national regulator, respectively.

It is expected that the provision of regulatory capital relief will remain a key element for the future implementation of debt products under ESIF and for that reason it should be considered at the stage of Funding Agreement negotiation whether its provisions would be compatible with this objective.

In accordance with the Basel regulatory framework, the benefit of the capital relief can be fully utilised when the entity providing the guarantee enjoys the maximum credit rating.

Transfer of benefits

Most of the instruments that are deployed through banks as FIs incorporate an element of support that is directed at the final beneficiaries. Continuous monitoring and sophisticated reporting through contractual arrangements with the FIs are required to ensure that the full benefit is transferred to the SMEs in a transparent and uninterrupted manner.

Attracting quality fund managers

Small regionally-specific funds rarely manage to attract top talent, as far as concerns fund managers, due to their size and limited scope. To counterbalance that, equity instruments could offer an attractive fee/carry ratio. This approach requires a careful balancing act between the interests of fund managers and private investors, and must in any case retain the alignment of interest principle. A more attractive carry might make investors less interested, and so such incentives might only be possible with regard to public participation in the fund. Careful judgement on what is the appropriate level of management fees/incentives and implementation costs is a difficult balancing act.

Local and committed teams

Strong local teams, or international teams with substantial capacity on the ground, have been shown to help an equity instrument achieve the impact sought by ESIF funding, especially from the developmental perspective.

1.4 Value added of the financial instruments

1.4.1 Value added of the proposed financial instruments

1.4.1.1 Qualitative value added

Given the market failures identified in the relevant chapter, the qualitative value added of financial instruments is significant in many respects, including:

- A more responsible approach, better performance and financial discipline at final recipient level in the case of financial instruments ("repayable assistance") compared to non-reimbursable assistance.
- Stimulation of a new generation of entrepreneurs in the innovative sector through the microfinance or early stage equity investments;
- Supporting the build-up and modernisation of the financial system, including also the non-banking financial institutions previously not used as intermediaries under the ERDF FIs, by using new instruments and gaining new SME customers, including in the social economy.
- Creating a degree of competition and complementarity among banks, fund managers, and other intermediaries which, as it has been shown in the past, usually leads to better terms for the final recipients;
- The mathematical leverage effect is supplemented by the stimulation of greater interest of private investors in a country or sector they would not have considered otherwise, potentially leading to further investments undertaken by them in the future.

1.4.1.2 Quantitative value added

The main element of quantitative value added of the proposed FIs is the leverage on ESIF resources and the subsequent market impact. At instrument level, leverage can occur at multiple different layers in the proposed structure. For example, at the FoF level itself, if structured correctly, the ESIF funding can be used to attract the EIB loan financing which immediately offers a leverage factor of 2. Additionally, underlying instruments may need to be designed to attract additional investment either by the selected fund managers themselves (to ensure alignment of interest) or other private investors wishing to engage in this opportunity (as limited partners) and to respect the relevant regulations. Furthermore, particularly for equity instruments, additional equity investment can often enable to enterprise to be in a position to secure additional loan financing.

However, the quantitative leverage is perhaps best viewed at the FoF or instrument portfolio level, which gives an overall aggregated account of the effectiveness in the spending of ESIF resources from the point of view of stimulating private financing. Additionally, within the implementation of FoF structures that enjoy the ability to attract an EIB loan, this further enhances the overall leverage and market impact aspects.

Table 5: Leverage effect of the JEREMIE instruments

Financial Instrument	Instrument size £ m	Estimated total SME loans/investments facilitated	Potential Leverage on ESIF
Co-Investment Fund (Seed Stage Focus)	£25m	100-150	EIB 2x and 2-3x from private investors
Venture Fund (Later Stage Focus)	£20-25m	20-30	EIB 2x and a minimum of 2x from private investors
Debt/Loan Fund (Small Loans Focus)	£20-25m	100-150	EIB 2x and a minimum of 40% from private investors
Mezzanine Fund (Larger Loans Focus)	£25-30m	Up to 60	EIB 2x and a minimum of 40% from private investors
Microloan Fund	£5m	Up to 150	EIB 2x only
TOTAL	**Approximately £100m**	**410 - 540**	

Source: EIB

An important additional benefit to the leverage effect calculated above, while difficult to estimate in advance, consists in the revolving nature of the current (JEREMIE) and future ESIF FIs. Even with the assumed losses, the revolved resources, which will need to be again targeted towards SMEs, will add further value in the form of further "rounds" of SME financing (Legacy Funds).

1.4.2 Consistency of the proposed financial instruments with the OPs' objectives

1.4.2.1 England Operational Programme (OP)

The central Managing Authority (DCLG) has finalised this Operational Programme which is expected to have a significant total financial allocation of ERDF. ERDF (and ESF) can be spent on a number of objectives defined in EU legislation and known as Thematic Objectives. The England programme will cover the following objectives:

(1) Strengthening research, technological development and innovation;

(2) Enhancing access to, and use and quality of, Information Communication and Technology;

(3) Enhancing the competitiveness of Small and Medium Sized Enterprises;

(4) Supporting the shift towards a low carbon economy in all sectors;

(5) Promoting climate change adaptation, risk prevention and management;

(6) Preserving and protecting the environment and promoting resource efficiency;

(7) Promoting sustainable transport and removing bottlenecks in key network infrastructures;

(9) Promoting social inclusion, combating poverty and any discrimination.

For the purpose of this PIS, the focus will be on Priority Axis (PA) 3 namely "Enhancing the Competitiveness and Growth of SMEs". This PA has been allocated 38.8% of the funding allocation representing an actual amount of EUR 1.409 billion and this is based upon the following justification provided within the OP itself.

"*There is a wide variation in the competiveness of small and medium sized enterprises. The majority do not show growth in any given year. Separate research shows that only approximately seven per cent of small and medium sized enterprises between 2002 and 2010 could be classified as 'high growth' according to the Organisation for Economic Co-operation and Development definition and these were responsible for creating nearly a quarter of all new jobs over three years.*

There are various factors that limit the ability of a small and medium sized enterprise to grow:

- *Business owner awareness of and access to business support. Businesses report significant benefits from using business information and advice. However, less than half of United Kingdom small and medium sized enterprises currently use business support due to difficulties in accessing information or advice and; doubts about the benefits of business support;*
- *The internal capacity and capability of a business including their ability to innovate;*
- *The external environment including procurement, access to finance and exporting.*

Access to finance is a particular area of difficulty for small and medium size enterprises. While 38 per cent of small and medium sized enterprise employers consider obtaining finance an obstacle to their business success, seven per cent of these employers report it as the main obstacle. Finance is also a disproportionately important obstacle for high growth firms compared to other businesses. Evidence suggests there has been a decline not only because of reduced supply of funding but also a reduced demand appetite for risk.

Exporting small and medium sized enterprises are more productive, innovative and resilient than non-exporting firms. The contribution of small and medium sized enterprises is significant – contributing to 80 per cent of the quantity of exports. A recent study found that 25,000 to 150,000 non-exporting United Kingdom small and medium sized enterprises have the potential to be competitive in export markets. "

As a direct result of these factors, the OP lays out that use of Use of European Regional Development Fund will be focussed on:

"*Small and Medium sized Enterprises are therefore seen by the EC and by Local Enterprise Partnerships as the highest priority for the 2014-2020 Growth Programme in terms of value of investment, focussed predominantly on access to finance and business support measures. There are three separate investment priorities in this axis which are:*

- *Access to finance through grants, loans and equity to help businesses grow where some groups of Local Enterprise Partnership areas are looking to build on current financial instruments to improve access to finance for small businesses while others look to collaborate to set up new financial instruments*
- *Business support including advice services for entrepreneurship, commercialisation, and*

exports;

- *Business support for new business start-ups;*
- *Premises for SMEs including managed workspaces and business incubators where demand is shown to exceed supply.*

The support provided through this priority will aim to increase the growth capability and capacity of Small and Medium Sized Enterprises and in doing so develop the pipeline of future high growth business as well as increase entrepreneurship across England, but there will also be a particular focus on territories with low levels of enterprise activity, and amongst under-represented groups. The projected number of enterprises receiving support from the funds (including match funding) by 2023 is about 65,000."

The creation and the acceptance of the OP lays out the background and framework for this PIS and enables a high level of consistency between the overall national priorities and the more regional focus of both the PIS and the subsequent implementation.

1.4.3 Consistency with other forms of public assistance addressing the same market

1.4.3.1 Consistency with current SME financing instruments

Block One of the Ex-ante Assessment undertaken by EIB with the support of Regeneris Consulting has covered this subject in depth and explained the array of previous and current initiatives to support greater SME access to finance within England and the UK. It is therefore not the intention of this PIS to duplicate that analysis however it is important that any final decisions on financial instruments at a regional level take into account activities planned at a national level, particularly those of the British Business Bank (BBB). Block One of the report has argued that the overall size of the market failure or suboptimal investment situation is significant and that a mixture of national and regional activities are considered appropriate to address the needs and stimulate further growth.

1.4.3.2 Consistency with activities of the British Business Bank (BBB)

Given its role, the BBB works closely with central government authorities to devise value-adding financing instruments for the SME marketplace. The British Business Bank's Small Business Finance Markets report, published in December 2014, shows that increased numbers of smaller businesses are expected to seek finance for growth in the coming years, as nearly half (46%) of small businesses plan to grow their turnover in the next 12 months, with 17% of these expecting to fully or part fund this expansion with commercial finance. The BBB website (www.british-business-bank.co.uk) lists the following debt and venture capital solutions to encourage lenders to fund smaller businesses:-

- Debt programmes
- Start-Up Loans
- Enterprise Finance Guarantee
- Equity programmes
- Enterprise Capital Funds (ECFs)

- Business Angel CoFund
- UK Innovation Investment Fund
- Aspire Fund

Whilst these initiatives are predominantly national in nature and do not target regional weaknesses, they remain an important part of the publicly-funded SME financial instrument landscape. Therefore, it is wise that open and constructive coordination between the involved parties is continually undertaken to avoid or minimise any overlaps.

1.4.3.3 Consistency with EU-level instruments managed by EIF

The newly launched central EU instruments have been entrusted to EIF for implementation by the EC and implementation activities have already begun. These instruments are open to engagement with financial intermediaries across all Member States and it should be expected that a certain volume of transactional activity will result in England. These instruments, do not specifically address the local market needs and their predecessors CIP and FP7 RSSF, as well as the first PROGRESS Microfinance, have been used only to a limited extent in the country. The EU-level instruments include the COSME Loan Guarantee Facility (successor of the CIP SMEG) and InnovFin Guarantee (HORIZON 2020) instruments amongst others and also remain an important part of the publicly-funded SME financial instrument landscape. As before, careful consideration of the impact of these instruments is advised when finalising regional investment strategies.

1.4.4 Possible State Aid implications

Block One of the report has covered this subject in detail and utilises external advice of this matter. Hence, this paper will not cover this subject in detail other than to state that each of the instruments detailed above needs to be carefully considered against State Aid regulations. As EU funds create advantages for SMEs on a selective basis, and their utilisation is decided upon by the state, they have the potential to be considered state aid under Article 107 of the TFEU. Although the new EC regulations for block exemption and de minimis aid entered into force in 2014, the principles of state aid are the same, with the following categories of financial instruments:

- State aid free instrument – e.g. loans at market rates, guarantees priced at market rates or at “safe harbour” rates, as defined by the EC
- Instruments with a state aid element but considered compatible with the TFEU and thus exempt from notification:
  - De minimis instruments under Reg. 1407/2013, not requiring notification – e.g. investments under the de minimis ceiling amount, or guarantees/loans where the aid element (gross grant equivalent) falls below the de minimis threshold.
  - Instruments exempt from notification under Reg. 651/2014, such as risk capital funds with at least 40% private participation and complying with all the other conditions set out in the GBER 651.
- Outside of these categories, instruments with a state aid element require a formal notification to the EC in coordination with the national state aid point of contact if considered required.

Since notified instruments may take longer to be approved, and state aid free instruments may not be interesting for market players and final recipients, the EIF's experience in the former programming period is that the block exemption rules (GBER and de minimis) are the best option to be used for financial instruments.

For each financial instrument, a careful assessment of state aid compatibility is needed, not only at final recipient level, but also at the level of the intermediary and (in the case of equity funds) of a private investor. As with any EU projects, it is essential to make the state aid elements a part of the instruments' design process, in tandem with the ESIF eligibility rules. This ensures that the principles are duly respected and, if required, a state aid, or a de minimis aid scheme, is proceeded with well in time for the implementation of the instruments.

1.5 Potential for additional resources to be raised by the financial instruments

1.5.1 Identification of potential sources of funding

It is understood that the FoF structure for the London Region, will be seeking to attract EIB loan capital as matched funding. Therefore, the selection of the FoF manager will need to be designed in a manner that clarifies the need for the selected party to be able to create an immediate initial leverage factor of 2x as shown above. However, in addition, certain underlying financial instruments may need to attract additional independent private investment (leverage) to varying degrees at either the level of the financial intermediaries or the eligible undertakings in order to increase the available capital pool (See Table 4) and comply with any relevant regulations (for example: risk finance measures/instruments operating under the General Block Exemption Regulation 651/2014 will need to respect Article 10). This effect can bring clear benefits in terms of critical mass and impact for the region.

It is important to note that the provision of an EIB Loan at the FoF level is a key aspect of this implementation model. From previous experience with commercial banks and reflecting the current status of commercial banks lack of willingness to undertake these types of loans, the EIB loan financing is considered to bring significant added value in enabling this structure to be implementable. Should any commercial bank be willing to lend on similar terms and conditions to EIB, then the region should fully explore that possible source of funding.

Additionally, a further source of funding to be considered is the legacy returns generated from the successful implementation of previous activities. These funds can either be used to add to the regional commitment to the FoF or allocated outside of the FoF to cover management costs likely to be incurred.

1.6 Consistency of the expected results with the operational programmes

In line with the objectives of the Operational Programmes and specific Priority Axes, the following are possible result indicators in the assessment of the performance of the proposed FIs.

Table 2: Potential result indicators to be monitored for the implementation of the proposed FIs

Financial Instrument	Funding Source	Result indicators[15]		
		jobs created	Jobs safeguarded	GVA
Co-Investment Fund (Seed Stage Focus)	ESIF and Matched Funding	1,200	n/a	£66m (based on yr 5 expectations per agreed business plan)
Venture Fund (Later Stage Focus)	ESIF and Matched Funding	515	425	£10m (based on first year reports of MMC London Fund)
Debt/Loan Fund (Small Loans Focus)	ESIF and Matched Funding	780	2,288	£43m (based on £55k/job GLA benchmark)
Mezzanine Fund (Larger Loans Focus)	ESIF and Matched Funding	**953**	2,796	£52m (based on £55k/job GLA benchmark)
Microloan Fund	ESIF and Matched Funding	170	**500**	£4.5m (based on Economic Recovery Loan fund)

Source: EIB/EIF after appropriate consultation

[15] It is important to understand the difficulty in estimating result indicators of this nature for financial instruments when the implementing period is spread across a number of years and potentially differing economic cycles. Therefore, all indicators should be considered as estimations only and not be considered as contractually binding on any party. These figures are offered as guidance only and subject to change through the course of actual implementation.

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1 Background

The Block One and Two phases of analysis and resulting deliverables have been developed by the EIB Group with the purpose of assisting the Managing Authority (MA) in England, namely the Department of Communities and Local Government (DCLG), to complete their SME ex-ante assessment process in the programming of financial instruments under the ESI Funds 2014-2020. This short concluding chapter provides further detail on the State aid implications of the proposals, the potential level of preferential remuneration and sets out the provisions and processes which should be considered by DCLG to ensure the key findings and recommendations of the ex-ante assessment remain relevant.

2 State Aid and Potential Level of Preferential Remuneration to private investors

The individual block two proposed investment strategies estimate the level of public and private resources to be potentially generated by each proposed instrument, they also set out possible State aid implications. In parallel with the development of the investment strategies, EIB has also provided support to the UK Government in relation to their discussions with DG COMP about the proposed SME financial instruments (FIs).

In its discussions with DG COMP, the UK Government noted that Article 21(13)(c) of the General Block Exemption Regulation (Regulation 651/2014) ("GBER") states that, "in the case of asymmetric loss-sharing between public and private investors, the first loss assumed by the public investor shall be capped at 25 % of the total investment". The UK stated that the proposed co-financing structure that it wished to implement, particularly with BBB and EIB as fund of fund manager and co-financier, does not imply asymmetric loss-sharing as between the debt and ESIF tranches of the capital structure of the fund of funds. The debt and ESIF contributions will be separate transactions that take place on different terms and conditions. In its letter of 19 May, DG COMP confirmed that based upon the material provided, the proposed structure was within the scope of Article 21 of GBER.

In addition, it should be noted that the proposed layered structure, is in accordance with the principles established in the ESIF/EFSI Complementarities brochure.[1] The brochure notes the possibility of layered funds, structured around different classes of risk and reward. It also highlights the potential for ESIF funds to finance the first loss piece/equity tranche and for the remuneration and/or reimbursement of the first loss piece/equity tranche to take place after the remuneration and/or reimbursement of the senior and mezzanine tranche holders respectively in line with normal market practice.

The UK Government has also highlighted that it will also seek to competitively procure underlying financial intermediaries who are able to attract further private sector capital either, at the level of the FI or SME final recipient investments. In the event that this competitive process demonstrates a need for preferential remuneration to this lower level co-funding, this may need a further independent assessment. This assessment should consider the expected profit or loss and risk of the FI and the expectations of the possible private investors and estimate the level of asymmetric profit sharing which may be required.

[1] European Structural and Investment Funds and European Strategic Fund for Investments Complementarities, European Commission, February 2016: http://ec.europa.eu/regional_policy/sources/thefunds/fin_inst/pdf/efsi_esif_compl_en.pdf

3 Provisions for Update

As market conditions and investment trends may evolve before and during the implementation phase of the FIs, Article 37 (2) (g) CPR requires that the ex-ante assessment includes provisions for its revision and update.

Possible indicators to trigger an update include:

- **Significant anticipated variances between the proposed targets and observed and forecast results**
- **Demand – both in terms of inadequate volume of the financing to meet the observed demand, or lower demand than anticipated**
- **Miscalculation of the risk to be taken by the FIs**: A situation may occur where the risk profile of the FI is significantly higher than expected, leading the FI to incur significant losses and thereby compromising its revolving nature
- **Material change to the economic conditions and funding supply**

The need for update and review of the ex-ante assessment could be signalled through:

- Regular reporting/monitoring of the FI
- Through ad hoc or planned evaluations (e.g. ongoing evaluations).

Furthermore, the MA has advised that it will set out the conditions by which a formal review of the financial instrument will be triggered, in the proposed Funding Agreements and associated guidance.

The MA plans to monitor performance against financial and non-financial targets on a quarterly basis, and the proposed FoFs will be required to submit a suite of management information to the MA demonstrating how each sub-fund and the FoFs overall are performing. This will enable the MA and FoF to assess cumulative performance.

In addition, at mid-point, and in conjunction with other financial instruments where appropriate, the MA has advised that it will assess the FoFs and the ex-ante assessment will be reviewed for ongoing relevance. The precise timing of this mid-point review will be determined at a later stage, but the MA anticipates it will take place during years 2 or 3 of the fund.

European Investment Bank
Circular Economy: Ex ante Assessment 2014-2020

European Investment Bank

July 2017 Final

pwc

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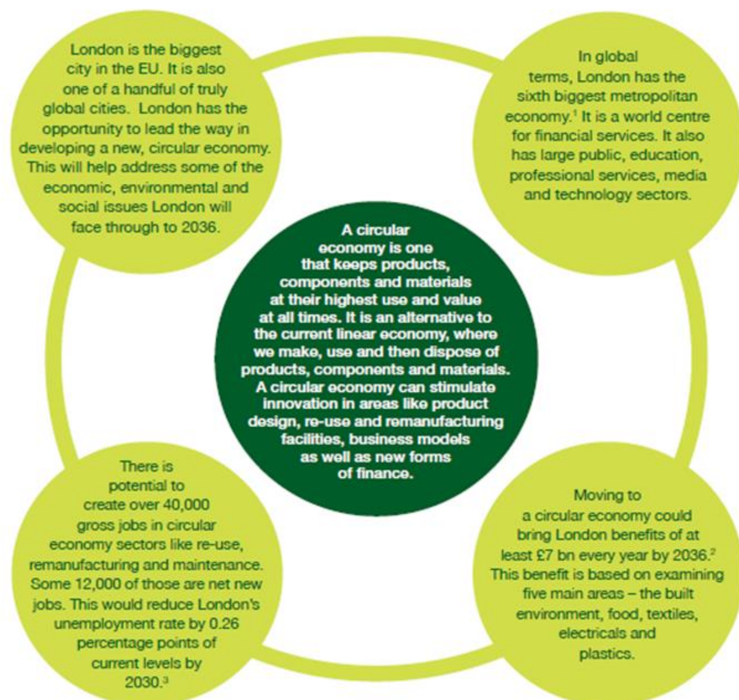
1. Introduction



Source: 'London: The Circular Economy Capital', London Waste and Recycling Board, 2015

Definition of Circular Economy (CE)

In general terms a CE is 'one that keeps products, components and materials at their highest use and value at all times'[1]. It is an alternative to the current linear economy, where we make, use and then dispose of products, components and materials. It has significant potential to stimulate innovation across the economy, in areas like product design, re-use and remanufacturing facilities, business models as well as new forms of finance.

An alternative definition, which comes from the Ellen MacArthur Foundation[2], is *"A circular economy seeks to rebuild capital, whether this is financial, manufactured, human, social or natural. This ensures enhanced flows of goods and services."*

A more recent working definition agreed between the European Commission (EC) and the European Investment Bank (EIB) at the beginning of a recent study by the EIB is *"The concept of Circular Economy attempts to encompass all economic systems where the resources used for a product or a service are maximally reduced and/or recycled, while either maintaining to the best extent possible their economic value at all times and/or ensuring that they are biologically degraded. CE-related projects focus on re-thinking and redesigning products, processes, value chains, business and service models in order to achieve the above-specified purpose."*[3]

One challenge with this relatively new sector is its varied nature and people's interpretation of its definition.

[1] LWARB report: 'London – the circular economy capital' ()

[2] http://www.ellenmacarthurfoundation.org/circular-economy/interactive-diagram

[3] http://www.eib.org/attachments/press/innovfin-advisory-report-on-circular-economy-full-report-public.pdf

Methodology

PwC was appointed by the EIB on 24/02/16 to undertake an ex ante assessment to determine the need for investment into to the Circular Economy (CE) in Greater London.

The assessment is divided into two specific parts:

- **Part 1: Undertake a market assessment:** to test the potential financing needs of the circular economy in Greater London and assess the extent to which these needs could be addressed by a Financial Instrument (FI) as part of the London Green Fund (LGF); and
- **Part 2: Recommend the preferred delivery and management structure:** for the financial intermediary that could support the LGF in addressing the funding gap(s) identified during the market assessment.

This Part one report focuses on assessing whether the rationale for a financial instrument for CE investing currently exists.

Where FIs such as these are being considered, the EU requires the completion of an Ex Ante assessment (as defined in Article 37.2 of the EU Regulations[4]) that evidences market failure or sub-optimal investment situations that drive the need for public investment. This report provides the ex-ante assessment as required by the Regulations.

Our scope of work (see Appendix A) was undertaken by PwC between May 2016 and October 2016.

For the purposes of this report:

- CE businesses are defined as ones whose business models exhibit at least one of the following five characteristics[5], as defined by LWARB in their recent CE report:
  - Renewable inputs –they use renewable energy or secondary materials as the inputs for products;
  - Recover value –they are involved in the recovery of value at end of life through biological or technical (i.e. non biological) recycling;
  - Prolong product life –they are engaged extending product life through maintenance, designing for durability, re-use and re-manufacture of products and components;
  - Products as services –they sell access to products while retaining ownership of assets or dematerialise through books or online shopping; and
  - Sharing economy' – they are engaged in sharing assets (e.g. cars, rooms, appliances) through sharing platforms that reduce environmental impacts of providing the product use to consumers.

In other words, it is businesses that contribute to resource efficiency in areas such as waste and water management. This report examines CE businesses in five focus areas – the built environment, food, textiles, electricals and plastics – due to their high environmental impact, their retained financial value and potential for re-use in the regional economy.

Due to the focus on resource efficiency, the scope above directly aligns with identified priorities for the deployment of European Structural and Investment Funds (ESIF) in the 2014-2020 period, in particular Thematic Objective (TO) 6 ("Preserving and protecting the environment and promoting resource efficiency"). In turn, this flows down to Priority Axis 6 of the ERDF Operational Programme for England.

- The Greater London region includes companies who fall within its geography by location of their headquarters, operations and/or catchment area/ service provision. However, for the purposes of assessing potential future demand, the geographic scope of this study was extended to cover a selection of UK based companies located outside the Greater London region where the experience and position of such companies was deemed to be representative of the Greater London market.

4 Regulation (EU) No 1303/2013 - Common Provisions Regulation CPR

[5] Peter Lacy, Jakob Rutqvist: Waste to Wealth, The Circular Economy Advantage (2014)

- Businesses of all turnover sizes are within its scope, i.e., start-ups, Small and Medium Enterprises (SMEs) as well as established conglomerates, which are categorised into two types:
  - Self-identified 'CE businesses' looking to scale up their activities; and
  - Linear businesses who are looking to transition to circular business models.

Due to the relatively limited currency of the concept of CE in the UK, there are currently only a limited number of businesses who self-identify as CE at this time. However, there is a considerably larger pool of companies whose business models exhibit one or more of the characteristics described above, and this is expected to increase over time.

This report has been overseen by a Steering Group including representatives from The London Waste and Recycling Board (LWARB) and the Greater London Authority (GLA).

Information sources

This assessment has been prepared from:

- Meetings with and documentation provided by the EIB, LWARB, GLA and wider stakeholder engagement. A full list of parties engaged with is included in Appendix B; and,
- Review and analysis of a variety of publicly available documents such as circular economy reports, strategy and policy documents, and a number of documents shared by the EIB, LWARB, GLA and other stakeholders. A list of documents provided to us is included in Appendix C.

In preparing this paper we have assumed that all opinions, beliefs and views expressed in the documents reviewed and by the parties engaged with during the production of this assessment are honestly made, based on reasonable assumptions having made the appropriate and proper enquiries and will continue to be, true, accurate, correct and not misleading in any way.

Project pipeline analysis

As a CE project pipeline for Greater London to 2020 was not available as an input to this work, an alternative approach to support the identification of possible financing gaps was agreed with EIB which involved conducting interviews with potential investees to glean more comprehensive evidence on demand-side findings for the need for a financial instrument. The findings are recorded in the Section 5.

State aid

References to state aid should not be considered as formal advice. State aid is a specialist area and legal advice should be sought.

Structure of this report

This report is structured in two parts to correspond to the focus of this assessment:

Part One: Market Assessment

1. Background to European Structural Investment Fund and London Green Fund;
2. Strategic priorities;
3. Funding supply;
4. Market gaps and failures; and
5. Strategic and market needs: Key findings & value add.

Part Two: Delivery and management of financial instruments

6. Key Findings from other relevant UK FEIs;
7. CE investment strategy;

8. CE fund design;
9. Non-financial outcomes; and
10. Fund design: Key findings.

Appendix H maps the content of each of these Sections on to the requirements of the Ex Ante assessment guidance Manual - General Methodology, Volume 1.[6]

[6] Source: https://www.fi-compass.eu/publication/manuals/manual-ex-ante-assessment-guidance-vol-i-general-methodology

Part one: Market assessment

2. Background to EU structural funds and the London Green Fund

Introduction

This section provides the broader context to the development of a new FI for circular economy by examining the background to its predecessor funding sources over the 2007-2013 operational period and how this impacts the design of future FI over 2014-2020.

Background to European structural investment funds (ESIF): 2007 – 2013

The Joint European Support for Sustainable Investment in City Areas (JESSICA) was a policy initiative of the EC supported by the EIB to help the authorities in the Member States of the EU to maximise financial engineering instruments (FEI) to support investment in sustainable urban development.

JESSICA did not provide new or additional money, but was a tool that utilised existing European grant funding to invest in regeneration investment vehicles, known as Urban Development Funds (UDFs), in order to accelerate investment in urban areas.

The JESSICA initiative created the opportunity for European Structural Funds to leverage other public finance and potentially private investment and invested through UDFs into projects, with an expectation that the public funding would be returned and recycled. UDFs could invest in projects by providing loan, equity or guarantees, the returns from which could then be recycled into further projects in the future.

UDFs were required to make investments into regeneration projects which were part of an Integrated Plan for Sustainable Urban Development (IPSUD) – i.e. aligned to a range of existing local plans and strategies.

The Joint European Resources for Micro to Medium Enterprises (JEREMIE) was a joint initiative developed by the EC in co-operation with the EIB and other financial institutions to enhance cohesion across the EU. The JEREMIE instrument was set up to deploy part of the structural funds through regional and national Managing Authorities (MA) in new risk finance initiatives for SMEs.

JEREMIE offered EU Member States, through their national or regional Managing Authorities, the opportunity to use part of their EU Structural Funds to finance SMEs in a more efficient and sustainable way. JEREMIE's financial resources have been deployed through selected financial intermediaries across the EU, which have provided loans, equity and guarantees to SMEs.

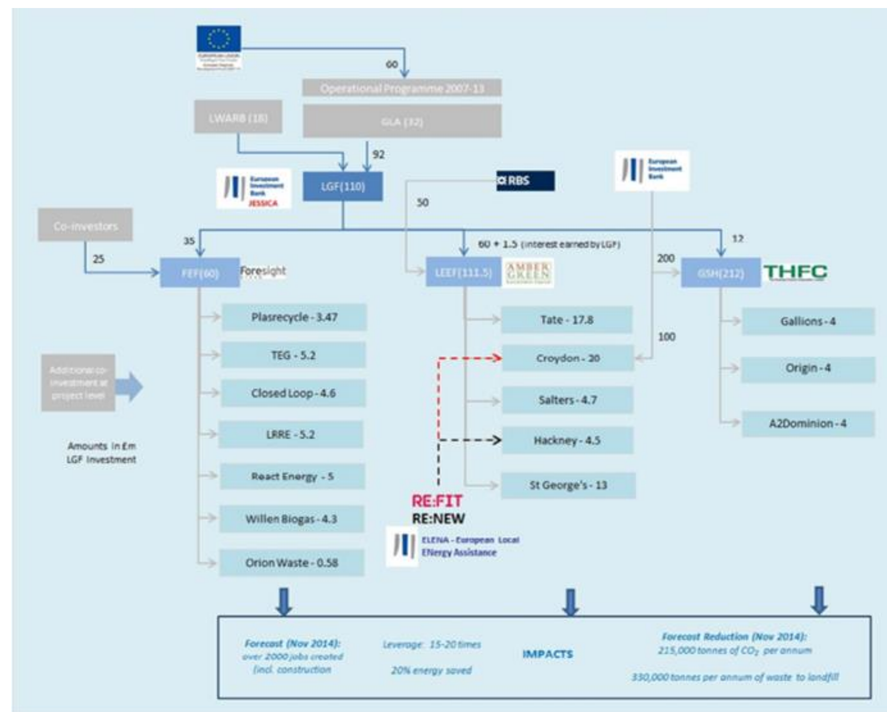
Background to the London Green Fund (LGF): 2007 – 2013

During the 2007 – 2013 programming period, the LGF was established by the London Development Agency and LWARB as a JESSICA Holding Fund and is managed by the EIB. The LGF was initially allocated £100m from European Regional Development Funding, GLA and LWARB funding. It used this to procure and contract three Urban Development Funds (UDFs) to operate in the Greater London region. The three UDFs are fully operational:

- **Foresight Environmental Fund (FEF):** FEF was established in 2011 and was allocated £35m from LGF. It provides equity investment to projects that comprise of construction or extension of waste to energy facilities, re-use, recycling or reprocessing facilities or any other facility that will displace fossil fuel;

- **Amber London Energy Efficiency Fund (LEEF):** LEEF was established in 2011 and was allocated £60m from LGF in total. It provides debt financing to projects involving energy retrofit in public or private buildings and decentralised energy systems; and
- **The Housing Financial Corporation Greener Social Housing Fund (GSH):** GSH was established in 2013 and was allocated £12m from LGF. It provides debt financing to registered providers of social housing for energy retrofitting.

The diagram below sets out the LGF's funding structure and design[7].



As of June 2016 LGF had invested £96m in 15 projects with a combined project value of £461m. It had created 1,639 jobs, saved 85,152 tonnes per annum of CO2 and 128,404 tonnes per annum waste to landfill.

Wider achievements include:

- Making investments that represent a step change in green infrastructure, e.g. the first anaerobic digestion plant in London.
- Demonstrating the ability to construct a financial instrument with limited geography and restricted focus which has attracted private sector investment.
- The ability to attract private finance using public funds increasing the scale of investment available. The EIB, have played a direct role in the fund and have committed to invest £800m in London, either directly or indirectly through the relationship with the LGF.

Background to Funding London: 2007 – 2013

In London JEREMIE funds where distributed via Funding London. It has supported 560 small and early stage businesses by investing over £45m via three equity and six loan funds. Each fund targets a section of Greater London's early stage and small business community where funding gaps exist.

The latest fund, The London Co-Investment Fund was founded in 2015 and is managed by Funding London and Capital Enterprise. It has raised £25m from the Mayor of London's Growing Places Fund to co-invest in seed rounds between £250,000- £1,000,000, led by selected co-investment partners. Its focus is in high growth SMEs, operating in digital, science or technology sectors.

[7] https://www.fi-compass.eu/sites/default/files/publications/case-study_london-green-fund_uk.pdf

ESIF programme: 2014 – 2020

The EC, acknowledging the important role that financial instruments (FIs) play in deploying Common Strategic Framework policies and in helping to achieve the objectives of the Europe 2020 strategy, is promoting the use of FIs in the 2014-2020 programming period and has widened the scope to use them.

The 2014-2020 regulatory framework allows the combination of FIs with grants and other forms of support in Operational Programmes (OP) tailored to meet the specific needs of Member States and MAs. In contrast to the previous programming period, there are no JEREMIE or JESSICA programmes under the 2014-2020 programme and ESIF funds that can be invested against any of the thematic objectives.

Following the abolition of the Regional Development Agencies by the then Coalition Government (2010 – 2015), responsibility for the 2014 – 2020 funding round now resides with the London Enterprise Panel (LEP) in Greater London. The LEP has been notionally allocated £584m of funding from the European Social Fund (ESF) and European Regional Development Fund (ERDF) to create jobs and support business growth in Greater London. It is responsible for the strategic oversight of the European Structural and Investment Funds (ESIF) in Greater London on behalf of the Government.

Of the total amount described above, the allocation between the proposed FIs for London considered in this report are:

Criteria	*Financial Instruments*		
	Energy Efficiency	*SME*	*Circular Economy*
ESIF allocation	£43m	£25m	£7m
Sources of proposed match	EIB & Private investors	EIB & Private investors	EIB & Private investors
Priority axis supported	4	3	6
Funding from existing LGF recycled monies	Up to £50m	N/A	N/A

[8] European Social Fund Programme for England 2014-2020 National Eligibility Rules (March 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/510300/european_social_fund_national_eligibility_rules.pdf

This report focuses on the proposed CE FI. It also considers the possibility of combining this allocation with the other FIs for London as part of possible delivery options.

EU regulations underpinning our work

The key regulatory requirements of ESIF underpinning this assessment include[8]:

- A minimum of 20% of ERDF awarded to Managing Authorities (i.e. Department for Communities and Local Government) must support activities that deliver against the EU low carbon thematic objectives;
- FIs need to be fully 'matched' (i.e. a minimum of 50:50 basis) with third party financial support at a Holding Fund, UDF or project level which will be lent or invested into projects;
- FIs can be used alongside grants; however they cannot be used to pre-fund grants or pay for working capital requirements of a project. It is therefore typically necessary to have an element of third party finance within a project that is not 'match' funding that can support ineligible expenditure;
- FIs must be committed to projects in a state aid compliant manner, i.e. it does not distort competition; and
- FIs must be established in accordance with the regulations, which can impact their design.

3. Strategic priorities

Introduction

To secure ESIF, the EC requires evidence to demonstrate that the application of such funds will support the delivery of relevant EU objectives. This section therefore sets out:

- The key European strategic priorities in terms of CE objectives;
- How both national and local policies are aligned with these objectives; and
- The role GLA/LWARB proposes a £7m allocation to CE investing may play in supporting these objectives.

Subsequent sections will test the GLA/LWARB proposition in respect of the market demand for this FI and the market gaps and failures it could support which is 'additional' to other sources of finance.

European strategic priorities

European Commission

In December 2015 the EC announced the adoption of a Circular Economy Package, which included revised legislative proposals on waste to stimulate Europe's transition towards a circular economy. This was aimed at boosting global competitiveness, fostering sustainable economic growth and generating new jobs.

The Circular Economy Package consists of an EU Action Plan for the CE that establishes a concrete programme of action, with measures covering the whole cycle: from production and consumption to waste management and the market for secondary raw materials. The proposed actions will contribute to "closing the loop" of product lifecycles through greater recycling and re-use.

The package has a significant emphasis on the waste sector in particular, with clear targets for reduction of waste and a long-term path for waste management and recycling. Key elements of this include:

- A common EU target for recycling 65% of municipal waste by 2030;
- A common EU target for recycling 75% of packaging waste by 2030;
- A binding landfill target to reduce landfill to maximum of 10% of municipal waste by 2030;
- A ban on landfilling of separately collected waste;
- Promotion of economic instruments to discourage landfilling ;
- Simplified and improved definitions and harmonised calculation methods for recycling rates throughout the EU;
- Concrete measures to promote re-use and stimulate industrial symbiosis – turning one industry's by-product into another industry's raw material;
- Economic incentives for producers to put greener products on the market and support recovery and recycling schemes (e.g. for packaging, batteries, electric and electronic equipment, vehicles).

The Commission's package has been received as a positive development by industry and policymakers. The introduction of a legally binding food-waste target is seen as particularly encouraging. However, industry experts feel that simply recycling more is insufficient in the context of current production and consumption patterns and more needs to do be done to cut down on waste generation[9]. It is hoped that similar legally binding prevention targets will be introduced for other areas, such as re-use more generally.

[9] European Environmental Bureau (http://www.eeb.org/EEB/index.cfm/news-events/news/not-bad-but-can-do-better-leaked-eu-proposal-on-circular-economy/)

EC ESIF priorities

As outlined in the previous chapter, this transition will be supported financially by the ESIF, which include €5.5 billion for waste management. In addition, support will be provided by €650 million under Horizon 2020 (the EU funding programme for research and innovation) and investments in the circular economy at national level.

Such investment by the EC in CE will be mobilised through ESIF TO 6 and TO3 for the 2014-2020 period which relate to "Preserving and protecting the environment and promoting resource efficiency" and "Enhancing the Competitiveness of SMEs" respectively. The tables below set out the components of these Thematic Objectives.

CE businesses (as defined for this project) would be eligible under components 2 and 3 of TO6, as well as TO3 at the European level:

Components of TO6	Investment priorities (For ERDF and Cohesion Fund (CF))
1. **Biodiversity, green infrastructure, Eco-system services and Natura 2000**	• For ERDF: Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure. • For CF: protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure.
2. **Water Management**	Investment in efficient water supply, • Waste-water treatment and water reuse, including new investment in the reduction of leakage, • Implementation of River Basin Management Plans.
3. **Waste management**	• Investment in waste management in line with the waste management hierarchy, in particular re-use, recycling and, for non-recyclable materials, recovery.

Components of TO3	Investment priorities (For ERDF)
1. **Enhancing the Competitiveness of SMEs**	• Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators. • Developing and implementing new business models for SMEs, in particular for internationalisation. • Supporting the creation and the extension of advanced capacities for product and service development. • Supporting the capacity of SMEs to engage in growth in regional, national and international markets, and in innovation processes.

National strategic priorities

Operational Programme for England

The total ERDF Operational Programme for England for the 2014- 2020 funding period is nearly £3 billion, of which c.2.4% is expected to be spent on Priority Axis (PA) 6, which directly aligns to TO6. Approximately 39% is expected to be spent on Priority Axis (PA) 3, which directly aligns to TO3.

The tables below set out extracts from PA6 and PA3, together with the key output indicators to be delivered for both:

Investment Priorities	Output Indicator[10]
1. **Protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure (6d)**	• Increase of the area of green and blue infrastructure (ID: 51) • Surface area of habitats supported in order to attain a better conservation status (C23)

[10] Source: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/342297/ERDF_Operational_Programme.pdf

2. Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution (6f)	• Natural resource productivity of enterprises supported based on raw material consumption of construction and non-construction materials, using a GDP index (ID: 5.2) • Number of enterprises receiving support (C01) • Number of new enterprises supported (C5) • Number of enterprises supported to introduce new to the firm products (C29)

Of the two Investment Priorities (IP) listed above, 6f is most directly relevant as it specifically targets resource efficiency. This means that a new FI for CE would need to consider the four output indicators for IP 6f.

Investment Priorities	*Output Indicator*
1. Promoting entrepreneurship, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new firms, including through business incubators (3a)	• Total early stage Entrepreneurial Activity, represented by the proportion of adults of working age (18-64) in the process of starting a business or running a business less than 42 months old (ID: 3.3) • Number of enterprises receiving support (C1) • Number of new enterprises supported (C5) • Employment increase in supported enterprises (C8) • Number of enterprises supported to introduce new to the market (C28) • Private investment matching public support to enterprises (grants) (C29) • Private investment matching public support to enterprises (non-grants) (C7) • Number of enterprises receiving financial support other than grants (C3)
2. Supporting the creation and the extension of advanced capacities for product and service development (3c)	• Number of small and medium sized jobs created (ID: 3.1) • Gap in productivity between SMEs and large companies productivity measured in terms of gross value added per employee (ID: 3.2) • Number of enterprises receiving support (C1) • Number of new enterprises supported (C5) • Employment increase in supported enterprises (C8) • Number of enterprises supported to introduce new to the firm products (C029) • Private investment matching public support to enterprises (grants) (C6) • Private investment matching public support to enterprises (non-grants) (C7) • Number of enterprises receiving financial support other than grants (C3)
3. Supporting the capacity of small and medium enterprises to grow in regional, national and international markets, and to engage in innovation processes (3d)	• Number of small and medium sized jobs created (ID: 3.1) • Gap in productivity between SMEs and large companies productivity measured in terms of gross value added per employee (ID: 3.2) • Number of enterprises receiving support (C11) • Number of new enterprises supported (C5) • Employment increase in supported enterprises (C8) • Number of enterprises supported to introduce new to the firm (C29) • Private investment matching public support to enterprises (grants) (C6) • Private investment matching public support to enterprises (non-grants) (C7) • Number of enterprises receiving financial support other than grants (C3)

In addition, there is scope to consider additional measures that are better aligned to the measuring the performance of CE businesses in different sectors of the economy and the longer-term value created for the economy as a whole.

Greater London strategic priorities

London has been one of the pioneers in the field of CE. In 2015 the Mayor of London tasked LWARB with developing a circular economy route map to 2036 as part of the Infrastructure Plan 2050. It is estimated that moving to a CE in Greater London could generate potential benefits of c. £7bn every year by 2036.

The estimate above is based on the CE's potential to create over 40,000 gross jobs in circular economy sectors, of which 12,000 would be net new jobs. This would reduce London's unemployment rate by 0.26 percentage points of current levels by 2030.[11]

Accordingly, LWARB and GLA are focussing on setting new targets to measure progress towards CE by December 2016, including:

- Creating jobs and training opportunities;
- Increasing the number of circular business start-ups, scaling up existing ones and moving traditional businesses' to a circular based model;
- Promoting CE demonstration projects;
- Increasing rates of reuse, product recycling, sharing; and remanufacture; and
- Increasing the number of GLA procurements with CE principles.

Due to its particular characteristics as the capital of the UK, as well as the largest urban concentration and financial centre in Europe, London is well placed to lead the way on CE in specific sectors that leverage these well-established attributes. LWARB and GLA have identified that Digital, Finance and service, Media, Higher Education and Government are the key enabling sectors to support London in its transition to CE.

Established by the GLA Act 2007 to provide a strategic approach to waste management, LWARB currently manages a £20m investment fund which provides tailored financial support to SMEs interested in developing waste infrastructure projects in and around London.[12] Key features of its current operations include:

- Suitable supported projects include initiatives such as recycle sorting and separation, secondary material reprocessing or re-manufacturing, anaerobic digestion and composting facilities or thermal/chemical conversion technologies;
- Support is offered on commercial terms in the form of debt or equity to medium and high risk projects which are not able to secure funding from the private sector alone;
- As part of its 2015 – 2020 investment plan, LWARB is also looking into investment opportunities in the CE through collaboration with the public and private sector and international partners. It will support businesses either looking to scale circular models or to transition to a more circular business model[13]; and
- LWARB is also considering a broader programme of business support for CE companies at all stages of development. This is described in more detail in Section 9. Such initiatives would help develop the pipeline of CE businesses over time.

GLA ESIF allocation to CE

As set out in the table in the previous chapter, GLA has earmarked £7m of their TO6 ESIF allocation for the proposed CE FI. Match funding of £7m will come from LWARB. GLA has confirmed that additional ESIF funding may be available to the extent further funding to support the CE can be justified.

As set out above, the output indicators for IP 6f are most relevant to CE. However, these indicators only measure the creation of new companies and do not take into account the lasting impact generated through deployment of funding. Additional measures of non-financial performance that measure the CE specific impacts are considered further in Section 10.

Though the CE FI is targeted at TO6, its target beneficiaries are SMEs in the Greater London region. This means there may be considerable synergies in aligning this with wider initiatives, such as the proposed creation of an umbrella

[11] http://www.lwarb.gov.uk/wp-content/uploads/2015/12/LWARB-circular-economy-report_web_09.12.15.pdf

[12] http://www.lwarb.gov.uk/

[13] http://www.lwarb.gov.uk/what-we-do/accelerate-the-move-to-a-circular-economy-in-london/

London SME fund that is targeted at TO3. This is considered in further detail in Section 9.

Conclusion

The EC has identified CE as an important strategic priority for the 2014-2020 funding horizon. Compared to other European countries like the Netherlands and Denmark, the term CE does not have wide currency in the UK. Hence the transition to CE will require building greater awareness of the concept across the public, private and third sectors, as well as close coordination with future environmental, economic and spatial policy development in London. For this reason the development of the CE instrument should be considered within the wider context of (a) the SME financing eco-system in the Greater London region, and (b) the ongoing CE business support activities of organisations such as LWARB, the Ellen MacArthur Foundation etc.

4. Supply Analysis

Introduction[14]

This section provides a summary of key findings from our analysis of the funding supply to CE businesses. Our analysis has included:

1. Interviews with six investors that either do, or plan to invest in CE businesses; and
2. Desktop review of existing funding sources that may support CE businesses.

This section summarises the findings from this analysis and forms conclusions on the key supply-side findings to support the identification of gaps in product offerings where ESIF, either as grant or FI and/or LWARB or GLA could play a role in catalysing the London CE market.

An investor perspective and overview of key findings

Six investors were selected to interview in order to gain perspectives from providers of funding across the product range. Most providers interviewed are focussed primarily on the UK and the Greater London market, but some such as Circularity Capital and Triodos provide a broader geographical perspective that enables comparison with countries where the CE agenda is more advanced.

These interviews have provided less granularity on market failures in CE compared to demand side interviews as many, despite investing in CE businesses, do not necessarily self-identify as CE investors. However, common themes are:

- **Investors have become more aware of CE businesses in recent times and have started to change how they approach them**: Specialist CE investors with a pan-European perspective note that the area has developed significantly over the last five years due to technology advances and macroeconomic trends such as input price volatility. This general awareness and interest are now starting to manifest themselves in specific changes in investment behaviour. For example, following as assessment of the financing products offered by the EIB Group in late 2015, it has expanded the eligibility criteria to enable coverage of CE projects by including non-technological (organisational or business model) innovation in scope.
- **However, such investment tends to be focussed on the more mature end of the CE spectrum**: The interviews highlight that existing funds and products are still largely targeted towards a narrow sub-set of CE relating to renewable energy, energy efficiency and waste. The technology and business models in these areas are now sufficiently proven and mature to draw commercial funding. Sample quote: *"We can only invest in established technologies. We have seen various innovative proposals but our mandate does not allow us to invest in such 'blue sky ideas' and we don't know where to refer these either."*
- **As in other sectors, investors prefer to build a diversified CE portfolio in terms of both lifecycle and geography:** Due to the emerging nature of CE business models, even experienced sector investors seek to limit their exposure to earlier stage investments, preferring to predominantly target more established businesses across a region, for example North West Europe, rather than any specific country. Sample quote*: "CE business models tend to be broadly similar across geographies, i.e., there are not many differences between say Scandinavian*

[14] Please see appendix F for more detail on funding sources

and UK businesses. Generally cities with large population densities provide a good environment for application of circular business models."

- **Early stage CE companies are seen as particularly risky by investors:** The CE is currently at a relatively nascent stage of development and there are only a small number of self-identified CE businesses who have reached break-even (exceptions below). This means that investors are typically assessing investment opportunities relating to start-up or early stage companies with limited trading history, little/no revenue and a long way from profitability. Sample quote: *"As we are known as CE investors in a relatively small market, we often find that such companies come to us for <£1m. This is too small for Private Equity or Venture Capital investors like us to pursue. These deals are solely dependent on angel investors, or angel syndicates. Given the specialist nature of CE, this is a small pool."*
- **The exception to the above relates to CE businesses in high-growth areas like the sharing economy:** Of the parties interviewed, only one specifically focus on early stage businesses in digital, science and technology sectors and have funded three to four CE such businesses out of 50 investments thus far. However, the key driver for choosing those businesses was their alignment to proven high-growth areas in the sharing economy space. Sample quote*: "We are interested in companies with the potential to disrupt/convert standard business practises across an industry. It's always difficult to accurately predict what will and won't take off when there is rapid technological change, but we have seen that anything consumer facing can scale quickly. That is why sharing economy is attractive".*

In summary, investors appear broadly comfortable investing in start-up/early stage CE companies in less proven areas (i.e., four of the five business models used in our definition of CE). However, CE projects or companies across the board with an average ticket size of under £2m will struggle to source finance, unless this comes from the limited pool of angel investor capital. This is consistent with findings from the demand side interviews in Section 5 below.

Funding Supply

From a supply side perspective, the current market appears to offer a broad range of products that meet the needs of CE businesses, including:

- **Grant:** Examples include LWARB and the British Business Bank (BBB), Horizon 2020;
- **Private Equity:** Examples include the Foresight Environmental Fund (LGF Waste UDF), Green Infrastructure Fund, Recycling & Waste Fund, The London Co-Investment Fund, Angel CoFund by BBB, Circularity Capital etc.;
- **Public equity (listed funds):** Examples include Triodos Sustainable Pioneer Fund, Triodos Sustainable Equity Fund etc.;
- **Debt:** LEEF (LGF Energy efficiency UDF), Help to grow – Growth loans by BBB, various EIB Group products;
- **Guarantees:** Examples include the COSME Loan Guarantee Facility, InnovFin SME Guarantee and the InnovFin MidCap Guarantee Facility, all provided by the EIB Group.

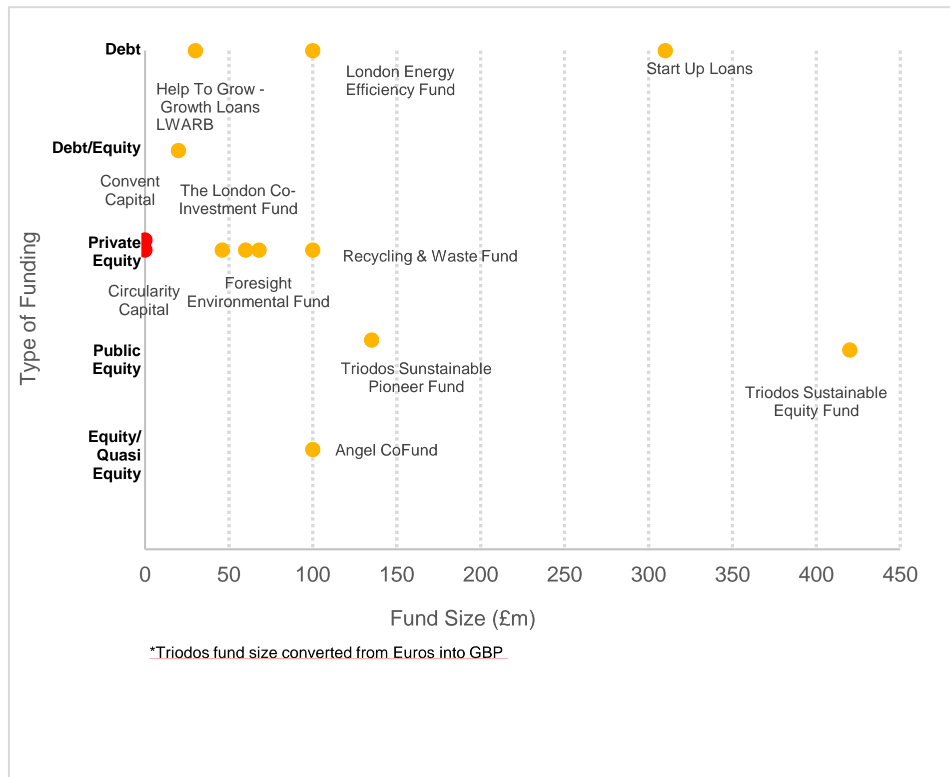
These are analysed below on three dimensions:

- Fund size and type of financing available;
- Average investment size and type of financing available; and
- Average fund size and maturity of investee firm.

For the purposes of this analysis, European funding products – specifically the seven InnovFin products cited in Appendix D – have been excluded due to uncertainty over their availability to UK businesses going forward.

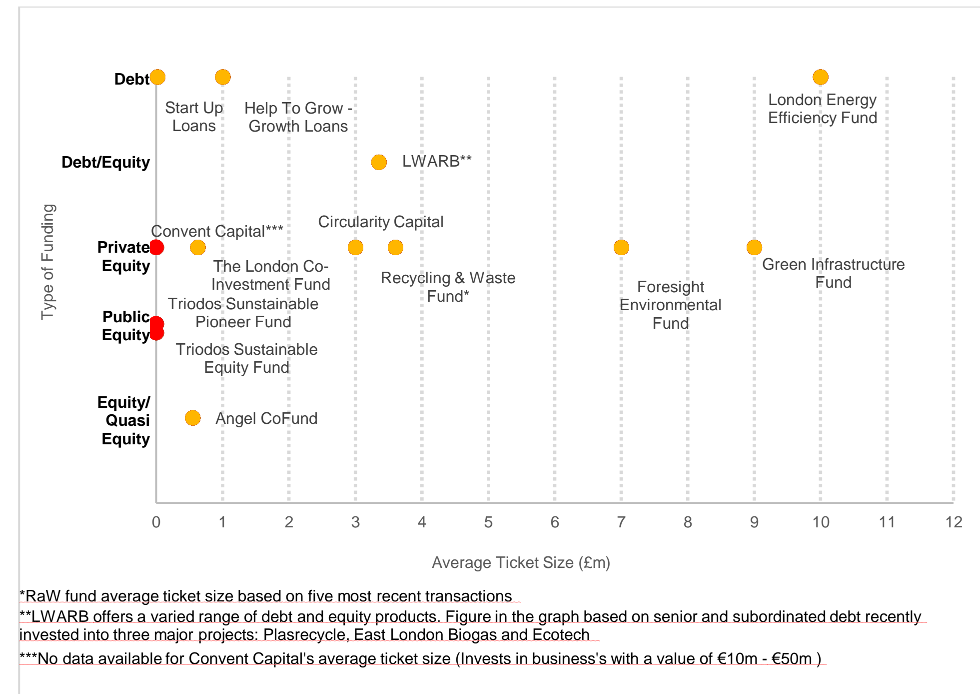
Further details on all the funding sources considered are set out in Appendix D.

a) Fund size and type of financing available



Based on the analysis of funds the majority offer only equity products. The exceptions to this are Help to Grow Growth Loans and Start Up Loans from the British Business Bank, as well as the London Energy Efficiency Fund, which also offer debt products. More diversified offerings include Dutch bank Triodos which invests in listed equity and the Angel CoFund which offers a mix between equity and debt to investees.[15]

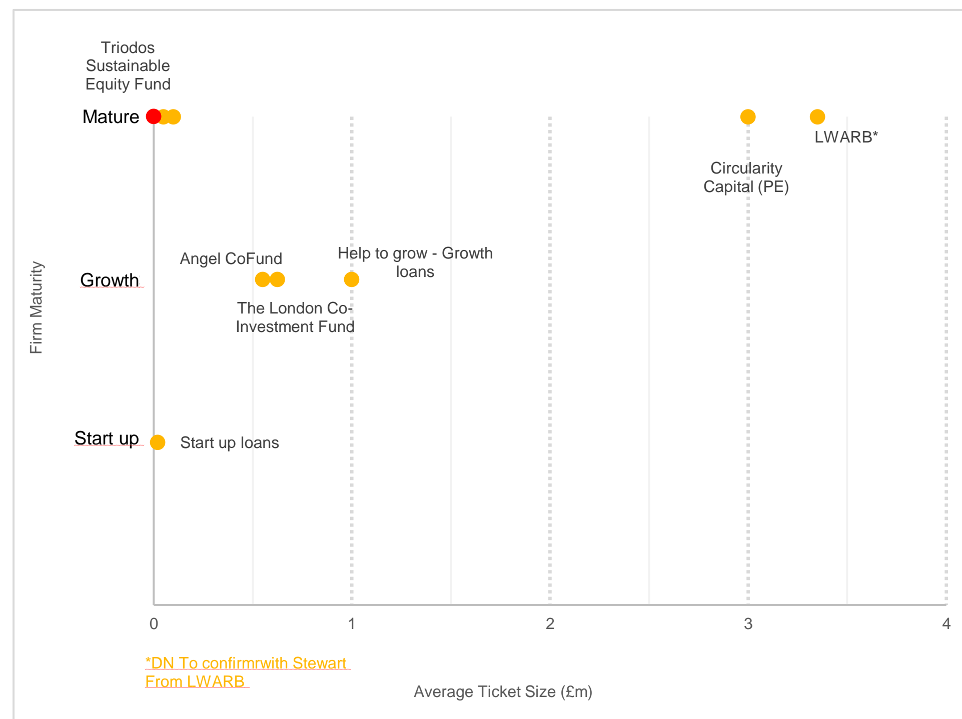
b) Average investment size and type of financing available



[15] Fund size data was not available for private equity firms Convent Capital and Circularity Capital.

Based on the analysis of the funds above, we can split the average ticket size of funding suppliers into three groups, with the majority offering equity products.

1. Established London Green Fund sub-funds Foresight Environmental Fund and London Energy Efficiency Fund alongside the GIB sub-fund Green Infrastructure Fund operate at the top end of the scale, with average investments between £7m and £10m. It is understood the London Green Fund proposes to procure a fund manager for LEEF 2, but the FEF is closed to further investment as it has invested its full allocation and come to the end of its investment period.
2. The London Waste and Recycling Board, private equity firm Circularity Capital and the Foresight managed Recycling and Waste Fund offer average investments between £3m and £4m; and
3. British Business Bank programmes such as Start-up Loans, Help to grow – Growth Loans and Angel CoFund and Funding London's Co Investment Fund offer ticket sizes of up to £1m. The former two offer debt products, while the latter offer equity products. All offer funding on a commercial basis and the Co Investment fund specifically looks at companies in the digital, science and technology sectors.



c) Average fund size and maturity of investee firm

The graph alongside focusses on the maturity of companies funded by current suppliers. The analysis excludes funds that invest directly into projects (such as waste plants or retrofit programmes) and only focusses on direct investments into companies. For the purposes of this analysis, 'start ups' are defined as companies that are less than two years old, pre revenue and pre profitability; 'growth stage' companies as those that are two – five years old, revenue generating but pre profitability and 'mature' companies as those with a trading history of over five years, generating revenue and profits.

The analysis shows that the majority of funds invest in companies defined as mature, while there are three funds which invest in firms in the growth stage of their lifecycle. Only one funding supplier offers investment to companies in the start-up stage, a common finding across all sectors due to the inherent risk. This, combined with a lack of knowledge and understanding of the CE sector, may lead to underinvestment in start-up companies identifying as such.

Conclusion

On the funding supply side, the market currently provides a broad range of financial products, including public and private equity as well as debt, grants and guarantees. However, these sources have historically been focused on:

- A narrow subset of CE comprising capital expenditure (infrastructure) investing into renewable energy, energy efficiency and waste management where the ticket sizes can be between £7-10m plus where often the investor has not self-identified as a CE investor; and
- Investing early stage equity of <£1m into start-up/early stage companies with little or no revenue, which is made almost exclusively from grants and angel investors, highlighting a possible financing gap, particularly for CE businesses; and
- There are more investors willing to invest in growth stage companies (two–five years old) where there is greater certainty.

In relation to average investment size and based on the demand-side analysis in the next section, there appear to be various sources for financing up to £1m and then above £2m+ for capital expenditure, indicating a gap between £1m-£2m. In addition, start-up companies which are not yet commercial also struggle to raise up to £1m for resource expenditure. [16]

[16] Average ticket size data was not available for listed equity investor Triodos Bank or private equity firm Convent Capital.

5. Demand Analysis

Introduction

This section considers the market gaps and failures in respect of the development of the CE in the UK.

Due to the emerging nature of CE as a concept in the UK, only a small number of businesses currently self-identify with the term. For this reason, there is not a ready-made pipeline of organisations currently seeking funding upon which to focus the market gaps and failures analysis. Instead, to understand the current demand side (investee) landscape and policy maker and macro-economic perspectives we have undertaken:

- Desktop review of emerging CE literature; and
- Interviews with CE organisations; and
- Analysis to identify the key market gaps and failures identified where ESIF, either as grant or FI and/or LWARB or GLA could play a role in catalysing the London CE market.

Supply-side perspectives are included in the previous section.

An investee perspective: overview and key findings

15 interviews with demand side organisations were undertaken – 12 SMEs (including two charities) and three established companies which were selected using the following criteria:

- Alignment with the two identified priorities – CE businesses looking to scale and linear companies looking to transition to CE models;
- Coverage of the business models used in the definition of this project;
- Coverage of the focus areas used in the definition of this project, with a high proportion of Food, Textiles and the Built Environment companies; and
- Location across the UK, with a high proportion in the Greater London area.

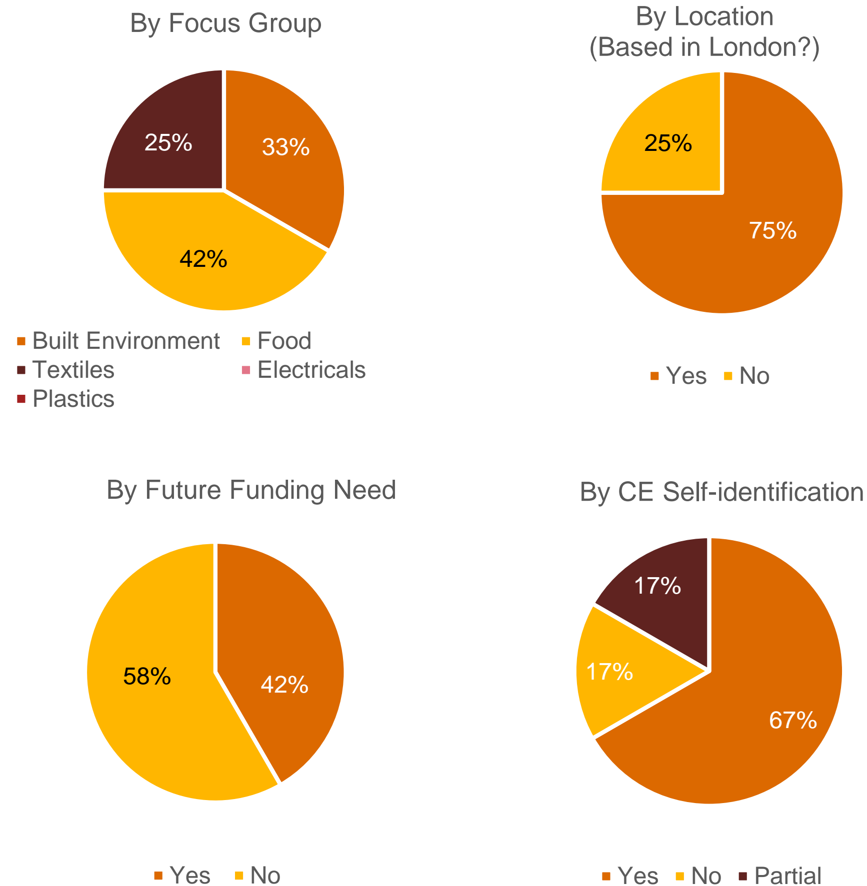
A supplementary criteria related to the extent to which the experience of such companies could be extrapolated more broadly to draw inferences about other businesses, for example in terms of financing requirements and challenges.

SME profiles and overview of key findings

The 12 SMEs interviewed were all CE businesses based on their business models and were all looking to scale.

- **By Focus Area:** Five (42%) focussed on Food, four (33%) on the Built Environment and three (25%) on Textiles. No response was received from the SMEs contacted in in Electrical and subject matter experts advised that the number of businesses in Plastics was currently low due to adverse economic conditions, particularly the low price of oil which makes the recycling of plastics less attractive;
- **By location:** Nine (75%) were based in the Greater London region and three (25%) were located in other parts of the UK;
- **By unmet future funding need:** Five (42%) had a future funding need, while Seven (58%) did not; and
- **By self-identification:** Eight (67%) of the total strongly identified with the term CE while two partially identified and two did not.

This profile of SMEs is depicted here:



As CE businesses span most, if not all, sectors of the economy, there was considerable variations between the perceived market gaps and failures of the SMEs interviewed. However, the three consistent themes in respect of their financing requirements were:

- **Type of financial instrument:** Difficulty in accessing early stage (Series A[17]) financing due to factors specific to their CE nature was the most commonly cited challenge. In the absence of grant funding, such early stage companies had a strong preference for equity type instruments over debt due to the personal guarantee required for corporate loans in the UK.
- **Link between type of business need and ticket size:** There appears to be two broad types of financing needs based on the nature of the SMEs underlying business model:
  - **Investment for capital expenditure:** Production focussed companies like Gumdrop and Knowaste have a trading history of c. five years and require financing to scale their physical assets and facilities. The interviews indicate these needs typically range upwards of c.£1m – £2m; and
  - **Investment for resource expenditure:** Other companies like Globechain and Snact also require financing to scale their existing business models but these needs are relatively ‘capex-light’. The business models of these companies focus on value creation through coordination, for example by using cloud based technology solutions or outsourced models of manufacturing. Their financing needs are in the range of £150k-£300k, largely to access specialist resources in areas like IT, sales and marketing and contracting.
- **Characteristics of SMEs with unmet future funding needs:** As set out above, 42% of the interviewee sample had current unmet future financial needs which could form the pipeline for the proposed CE FI. On average, these early stage SMEs had a need for Series A equity in the range of £150k-£300k for resource expenditure.

[17] Series A round is the name typically given to a company's first significant round of venture capital financing. The name refers to the class of preferred stock sold to investors in exchange for their investment.

The table below provides a summary view of the 12 interviewees, with the five with current unmet future funding needs at the top. Further details are set out in Appendix E.

Company	*Focus area*	*London based?*	*Funding sources*	*Future funding need*	*Type of expenditure*
SME 1	Textiles	Yes	Own resources and used government tax credit scheme	Require c. £250k p.a. going forward, £130k p.a. for experienced Chief Marketing Officer, with a team of three to four staff. In addition, £200k-300k p.a. for annual sales and marketing budget	Resource
SME 2	Built environment	Yes	Own resources	£200k – £250k	Resource
SME 3	Food	Yes	Own resources/Crowd funding in first year/ Angel investment	£150k – £200k	Resource
SME 4	Food	Yes	Since launch have had a £600,000 seed round/Raised their series A through impact investment VC Mustard Seed and D-Ax (c£2.5m)	Envisage a B round going to market Q1/Q2 of 2017, raising a healthy multiple of series A funding	Resource
SME 5	Textiles	No	Self-funding at development stage/debt at later stage	£8m – £15m	Capital
Indicative Total				**£3.1m – £6m of Resource expenditure**[18] **£8m – £15m of Capital Expenditure**	
SME 6	Built environment	Yes	"£50,000 capital grant from WRAP/Self-funded from parent company (c£1m)	Will need additional funds to invest in R&D, technology, equipment and staff as new service initiatives are introduced in 2017	Both
SME 7	Built environment	No	Own resources initially/Angel investment/Later partnered with Dulux	Currently raising funds through licensing deals. Have agreed partnerships with major paint manufacturers	Resource
SME 8	Built environment	No	Investment from sponsor (Dulux)/Angel investment/ Ethical investment	"£20,000 per remanufacturing process. Each of the 75 schemes also requires premises – some schemes lease these; others buy these or space is provided by the council or others	Capital
SME 9	Food	Yes	Grant funding/Pro bono support	Operating budget of £78,000 for the 12 months to June 2017 to pay for two members of staff, all of which is currently secured	Resource
SME 10	Food	Yes	£50,000 start-up loan funding from CAF Venturesome	Likely to receive a further £150,000 investment to take our ideas to scale from Esmee Fairbairn and are seeking a further £100,000 from CAF Venturesome to increase our on-line reach.	Resource
SME 11	Food	Yes	Own resources, Government grant	N/A	Capital
SME 12	Textiles	Yes	Raised EUR 3.8m over three years from a combination of EU and investor funding, as well as recycled revenues.	N/A	N/A

[18] Assumes SME1 has funding need range of £250k-£550k and SME4 has a funding need range of £2.5m - £5m.

- **Indicative total value of the CE pipeline (capital and resource):** The table above shows an unmet funding need of £3.1m-£6m for Resource Expenditure across four London based SMEs and £8m – £15m for Capital Expenditure based on one non-London SME. Together, this comes to an indicative total of £11.1m – £21m. As the total is based on a sample of only five interviewees with unmet funding needs, this would imply that there is sufficient pipeline of investment opportunities for a new FI.

  However, it is important to note that the total largely reflects SME5's capex requirement, which is significantly higher than the £1m-£2m that subject matter experts think is more typical across CE. SME5 is a mature company which has conducted R&D around the world since the 1990s and is now looking to build a full new high capacity plant; this differentiates them from early stage companies who wish to purchase a specific piece of new equipment for example. While SME5's funding need is unmet at this point, they appear better suited to access debt products from more conventional lenders than most of the other SMEs interviewed.

  Potential FI focus on Resource Expenditure: Seven (58%) of the 12 interviewees cited a future need for Resource Expenditure, compared to only three (23%) who needed capital for capex[19]. In addition, four out of the five (80%) SMEs with an unmet funding need had a need for resource expenditure as most existing funding sources explicitly exclude this.

  The figures above are likely to be conservative for two reasons. Firstly, some interviewees have identified financing sources for future needs up to 2020 but state that they could apply to the FI instead depending on the timing of its launch and the terms it offers relative to the market. Secondly, the range above is based on a sample size of only 12 SMEs, when SME's constitute 99.9% of all UK businesses and 47% of all private sector turnover[20]. Whilst CE SMEs currently only make up a tiny fraction of the economy, this is a rapidly growing area.

- **Extrapolation of interview findings:** As the interview sample above is relatively small and there is no industry body to track the number of CE organisations in the UK, further extrapolation analysis has been conducted using publically available data relating to Social Enterprises. These are defined as businesses with a social or environmental mission. The table below sets out 2015 data from the national body for Social Enterprises.

Social Enterprise UK data (2015)

a)	Total number of UK Social Enterprises	70,000
b)	Social Enterprises 3 years old or less	35%
c)	Social Enterprise 3 years old or less in the London Region	44%
d)	Principal trading activity – Environmental – recycling, reuse, awareness	8%
Indicative proxy for number of CE businesses in London - unadjusted *a*(b*c)*d*		***862***

Source: Social Enterprise UK - State of Social Enterprise Survey 2015

In the data above the 'environmental' subsector is widely defined to cover a wide range of activities, only a portion of which can be included within the definition of CE. Hence, if the 8% figure is reduced to 2% - 4%, this would imply there may be between 216 and 431 CE organisations less than 3 years old in the Greater London region.

Demand side interviews conducted for this study have indicated there is a funding gap in the £150k-£300k ticket size for early stage CE companies requiring resource expenditure. Of the 12 interviewees, 4 (33%) stated they had such a future funding need. However, it is likely that a future fund targeted at the CE would raise the profile of the sector and help address the self-identification issues identified in this study, resulting in a higher proportion of CE businesses with unmet funding needs coming forward.

Combining the elements above suggests that the potential funding gap may be in an indicative range from £16m - £71m as set out in the table overleaf.

[19] One stated a need for both and one did not have a future funding need.

[20] Business population estimates for the UK and regions 2015: Statistical Release, Department for Business Innovation and Skills, October 2015

Extrapolation analysis	Lower end of range	Higher end of range
Indicative total number of CE businesses (#)	216	431
Businesses with unmet funding need (%)	33%	55%
Average ticket size required (£)	£225,000	£300,000
Indicative funding gap	£16.0m	£71.1m

- **Risk implications of SME focussed FI**: Whilst SMEs make up a significant proportion of the economy, it is important to note that over half of UK start-ups fail within the first five years of establishment[21]. In order to mitigate this risk for the FI, it is prudent to consider an investment strategy that seeks to balance its portfolio by targeting both SMEs as well as larger established companies. The next sub-section sets out interviews and desktop research examining the needs of established companies. It concludes that such companies typically use their own internal resources to finance CE projects and the only exception relates to grant funding. Hence, a FI that offers equity and/or debt solutions is unlikely to attract established companies.

  An SME focussed CE FI would hence need to consider alternative ways to refine its investment strategy and mitigate investment risk. This could include gaining a better understanding of the consequences of early stage/ venture equity investing based on the experience of existing funds, such as Funding London's vis-à-vis default rates. Another way could be to offer asymmetric terms as a way of drawing in co-investors and hence spreading risk across a wider portfolio of investments. However, this would need to be carefully considered in terms of effectiveness. For example, taking a lower return on equity may be more effective than taking a 'first loss' equity position as the latter has no impact on the binary risk of whether a company will fail or not.

Established company profile and key findings

The three established companies interviewed were all linear businesses looking to transition to CE models.

- **By Focus Area:** Two of the companies were focussed on the Built Environment and Textiles respectively. The third one was drawn from outside the focus areas due to its success in developing a complex CE project from prototype to manufacturing stage;
- **By location:** All three companies had a sales footprint in the Greater London region but their manufacturing facilities and headquarters were based elsewhere, including a significant presence abroad.
- **By unmet future funding need:** Two had unmet future funding needs, but one – an early pioneer in CE – has decided to scale back its circularity programme going forward; and
- **By self-identification:** All three did not primarily self-identify with CE.

The table below presents a summary view of the three interviewees, with the two with unmet future funding needs at the top. Further details are set out in Appendix F.

The key finding on the financing requirements of established companies is that these tend to be well-capitalised. The interviews show that CE projects that are able to make a strong business case are able to attract funding from internal sources despite the relative difficulty in collating robust data across their supply chains. However, they may seek grant funding for larger ticket sizes, typically a few million pounds. Such companies are typically not interested in exploring debt or equity routes for CE projects due to the complexity and time frames involved.

[21] "Growing Pains: How the UK became a nation of "micropreneurs", RSA Group, October 2014

Company	Focus area	Funding sources	Funding need	Type of expenditure
Established 1	Built environment	Internal resources	Interested in pursuing further projects	Both
Established 2	Other	Real Car 1: £2m grant funding between 2008-2011 from DTI (pre-cursor to Innovate UK) Real Car 2: Received £1m from Innovate UK	Now working on successor project to REALCAR, focusing on end-of-life, looking to extract high quality materials. The three year programme is likely to require c.£2m	Both
Established 3	Textiles	Internal resources. CE was a priority for previous CEO	Limited interest in significant new investment	Resource

The transition to CE in the SME space could be complemented by some targeted financial support to established companies to undertake circularity projects that would likely not proceed otherwise. Early examples, such as JLR's REALCAR have shown that such investment can reap significant benefits in a relatively short time horizon and indirectly impact SME's through the supply chain. Whilst the interviews have shown that established companies are primarily interested in grant-type financial support (which falls outside the scope of the proposed FI), the FI could retain flexibility to potentially invest in larger companies in the future, for example where there are significant supply chain benefits from doing so.

SMEs: Detailed interview findings

The demand side interviews identified a range of common themes which can be broadly extrapolated across the CE.

Some of these themes are specific to CE businesses (i.e., are linked to the circular nature of these businesses, rather than other factors like size and maturity of the organisation):

1. **Difficulty in accessing early stage funding as investors are unfamiliar with CE business models:** Due to the high-risk nature of early stage businesses, investors tend to prefer to invest in companies with an established business model. This means that CE businesses are at a disadvantage as most of them are 'first movers' in their respective niche areas – in this instance, the lack of competition actually acts as a barrier to attracting investment. Sample quote: *"Uber would never have got the £1m-£2m it needed at Series A in the UK, but now its success means sharing economy copycats can access that quantum as investors consider it to be a 'proven' business model."*

   This applies to start-up companies, as well as more established businesses. For example, interviewee company SME5 was established in the 1990s and has built personal hygiene product based recycling R&D facilities using all over the world. However, while they operate in one of the more well-funded part of the CE, they have struggled to raise finance in the UK since their technology is less familiar to investors. Other companies who recycle more specialist waste materials, like tyres, face similar challenges.

2. **Difficulty in accessing early-stage grant funding as a CE business due to the set-up of these mechanisms:** CE businesses feel that most of the grant funding for early stage entities focuses on Research & Development (R&D) type activity and hence goes primarily to universities, as well as concept-stage social enterprises who are better positioned to access these funding mechanisms. Sample quote: *"I simply gave up on trying to get government grants. They are oriented towards those who are skilled at filling forms rather than running a business. They give you a 100 words to describe what you are doing and then the rejection feedback says you didn't provide enough detail."*

Other themes are broadly similar to the experience of organisations at a similar level of maturity across sectors:

3. **Difficulty in accessing the right financing product on appropriate terms:** Like entrepreneurs in other sectors of the economy, CE businesses are disinclined to take on a sizeable loan as an individual to fund a new business. Such corporate loans with personal guarantees are seen as high risk due to the personal implications for Directors in case of default. In addition, early stage businesses typically do not have assets to provide as collateral to raise debt. Even the more financially astute entrepreneurs interviewed cited a preference for equity over sophisticated debt products like convertible/venture debt due to the complexity, time and effort associated with these products. Sample quotes:

   "Grants were no use as I needed the money straight away and couldn't afford to wait the typical six to twelve months to award decision. I also didn't feel my project met the requirements. Loans were not an option as I was reluctant to put up a personal guarantee at the age of 66 as I could lose my house if things went badly."

   "I thought about getting a loan but the APR was too high and I didn't have enough contracts then to make the monthly instalments. As things turned out, I might get a loan now as I have more certainty about future orders but not then. In addition, as a technology company I don't really have any assets other than Intellectual Property."

   Hence, businesses have a preference for equity. The challenge lies in accessing this on reasonable terms, without excessive dilution of their ownership stake with a corresponding impact on incentives to grow the company. Sample quote: *"Personal debt is a frightening prospect and business loans are not appropriate for start-ups, so we took the equity route. We had to knock on a lot of doors to find the angel investor who offered fair terms – 20%-25% doesn't matter much to an investor with a portfolio but it all adds up to an entrepreneur. "*

4. **Difficulty in accessing the right ticket size:** As CE business models span all sectors of the economy, there is wide variation in the type of ticket size required even at similar stages of maturity. For example, within our interview sample, the quantum of early stage financing required ranged

from £150k (for setting up a food recycling business in London) to £8m (for setting up a development plant for a new waste recycling technology in the West Midlands). However, a major proportion of SMEs interviewed cited figures closer to the lower end of that range, i.e. approximately £150k-£300k. Sample quote: "We found you get funding in the £5k-£20k range and then at the £1m+ scale but there is nothing in the middle."

5. **Difficulty in accessing funding for resource expenditure:** The SME businesses interviewed cited significant challenges in raising finance to meet their working capital needs as functions such as sales and marketing are generally seen to be 'soft costs' that are often excluded from existing products. 58% of interviewees stated resource expenditure as their primary funding need. Sample quote: *"The market is able to lend for capital expenditure but working capital is much harder to source. There are no grants for this. Our projects are not capital -intensive, so the funding requirement is to employ staff, pay rent, business rates of tax etc. Government schemes for SMEs offer payback for R&D expenditure but not the items above. We had to pay £35k out of the founder's own cash reserves to hire an employee to run the factory for one year."*

6. **Difficulty in accessing the right types of wider support:** Due to the emerging nature of CE, businesses find it difficult to access the business support they need. This need for specialist input grows more acute as companies grow and need strategic input in the form of Non-Executive Directors (NEDs) rather than ad-hoc mentors. Interviewees further stated that industry conferences tend to either be quite basic or largely academic in nature, with little content dealing with practical implementation issues. Sample quote: *"At the very beginning having generic support to help with legal issues, accounting or tax rebates is useful, but once you know the basics, you need more bespoke input. Most of the existing start-up programmes offer mentors who are not very useful because their area of expertise does not match the entrepreneur's needs."*

Finally, whilst the SMEs companies interviewed were chosen as their core business models are circular in nature, they demonstrated varying degrees of self-identification with the term 'circular economy' for classification purposes.

7. **Use of 'Circular Economy' for classification purposes:** In particular, the term appears to have wider currency with larger businesses with a pan-European presence. For example, the Ellen MacArthur Foundation's 'Circular Economy 100' programme brings has a diverse range of stakeholders, with member groups including corporates, governments and cities, academic institutions, emerging innovators, SMEs and affiliates[22]. However, primary and secondary research indicates this is perceived to be more of a forum for larger businesses who are global leaders in their respective fields. Start-up and SME businesses interviewed tend to identify more with their respective sectors, though CE has started to gain momentum over the last 12 months due to the work of policy organisations like LWARB. Sample quote: *"When we started we only thought of ourselves as a food business. Even now the experience of other food companies is most relevant to us when we are looking for resources and support, and sustainable businesses more broadly would probably come next. We were introduced to the term 'circular economy through LWARB last year and we now do self-identify to some extent but I would say that people at large do not really understand the term."*

[22] Source: https://www.ellenmacarthurfoundation.org/ce100/member-groups

Established companies: detailed interview findings

The interviews conducted and literature review have highlighted the following themes:

1. **These businesses do not primarily self-identify as CE:** For example, even companies with well-known sustainability programmes which are members of the CE100 list identify primarily by their industry classification (e.g., as a home improvement retailer or automotive maker) rather than as CE. One of the early pioneers in the field has actually moved away from CE as a change in management has led to an increased focus on financial performance and current material recycling technologies were not seen to be price competitive. Sample quote: *"Til three years ago we self-identified with CE. However, while it still on the corporate radar, it is now not a big part of the strategy due to implementation issues. There is an internal sense that we did our share in leading the way and found limitations to the circular approach, and now would like to see how the area develops going forward. The long run business case for CE was found to be weak after a change in management and the new CEO decided the pause CE initiatives till the technology caught up."*

2. **Established linear businesses are increasingly partnering with SMEs to transition to CE**: Historically they have tended to participate in circularity-type initiatives through the acquisition and partnership route. The former is higher risk as purchasing disruptive start-ups and integrating them into existing operations can have varying levels of success. For example, in the food and beverage industry Cadbury's acquisition of the Green and Black brand of chocolate – the holder of UK's first Fairtrade food mark – in 2005 was significant as it enabled much wider distribution in Europe and North America and paved the way for Cadbury to move towards what had previously been a niche part of the market. In contrast, partnership arrangements are becoming much more common. All three companies interviewed cited collaborations with CE SMEs, as suppliers, service providers and consultants. In addition, various SMEs cited these established companies as their preferred 'route-to-market'. Sample quote: *"We are currently raising capital through licensing deals with major players for making our recycled paint. We have five such manufacturing licenses operational with the likes of []23, [], and [] and are negotiating two more. [] have taken a license, and we also provide them with additional consultancy support on what other waste can be recycled."*

3. **Multi-billion pound businesses largely fund circularity initiatives** through internal resources: All the companies interviewed primarily used internal resources to fund circularity initiatives. This ranged from a few thousand pounds at concept stage to a few million pounds at production stage. CE initiatives typically needed to compete with other business priorities to attract this funding. Due to the more nascent nature of CE, seeking approval for such business cases often requires greater stakeholder management and collating data to build a robust evidence base is more challenging. This is linked to the fact that seeking to introduce circularity into such companies often requires a significant change in their existing business models. Sample quote: *"The products need to be win-win-win for consumers, the business and the environment; the business case has to stack up. In the past, areas like tool rental were perceived to be challenging as they were at odds with our core proposition of selling home improvement items. However, as we start to build more of a track record in CE by introducing successful closed loop products and supply chains, the Board is becoming more open to exploring such avenues."*

   – **Example: IKEA has found changing its supply chain far more challenging than adding new, more sustainable products.** It is considered as early leader in sustainability as it sold more than €1 billion ($1.13 billion) of sustainable products in 2014[24]. However, introducing true circularity in its operations is more challenging as it involves changes to its complex and diversified supply chain impacting hundreds of smaller companies. One of the areas IKEA has started to explore relates to logistics, where it is currently focussed on one-way delivery of products from depots to consumers. Preliminary thinking has shown that introducing a full 'reverse logistics' service that enables value

[23] Names of companies removed to maintain anonymity. All are multi-national entities with million dollar plus turnover.

recovery through repair and recycling of products requires significant investment and time.

4. **Established companies may seek to access grant funding from external sources for larger ticket sizes**. In the context above where CE initiatives have to compete with other areas for budget and internal resources, recent experience around the deployment of European and UK government funding has shown that external grant funding specifically targeted at expediting progress towards circularity can be very effective in injecting greater momentum to CE initiatives within established companies. However, companies were not interested in using debt or equity instruments towards this end for structural reasons. Sample quote: *"It took five to six years before the returns on the project started coming in and the project struggled to get the budget and personnel resource it needed. The c. £2m of UK government grant funding of was very important in this period as it helped distribute the cost across the supply chain and funded the production testing at scale…[] In terms of alternatives to grant funded R&D, I suppose we might look at license agreements for distinct pieces of new IP, but not debt or equity. It's just not how we are set up. "*

   – **Example: Jaguar Land Rover (JLR)** launched the REALCAR (REcycled ALuminium CAR) project in 2008 to create a closed-loop value chain to recycle vehicles at the end of their lifecycles[25]. Through a collaboration with US aluminium can recycler Novelis, JLR trialled the new 'RC5754' aluminium alloy – made from automotive scrap metal – in the production of key components for the Jaguar XE sports car. The trial was funded by Innovate UK and the company announced in 2016 that its success has meant that all new and legacy JLR models will now feature this sustainable aluminium alloy that contains up to 75% recycled content. The trial and subsequent work undertaken on the scaling of findings has shown that the change will actually contribute towards an ongoing cost savings programme at JLR and is perceived to have a significant impact on the automotive industry as a whole.

The findings above illustrate some of the challenges faced by established companies in transitioning to CE, as well as how European and UK government grant funding can act as an important driver in laying the ground for substantive transformations in the business model of the company, as well as the industry more broadly.

Public policy perspective

Public policy organisations[26] have undertaken considerable demand side analysis of CE trends in the Greater London region, highlighting both the opportunities and challenges in the region more broadly. Key themes from this analysis are summarised below:

- **Private sector opportunities –** As a significant proportion of large businesses in London are in the service sector, they have several common procurement needs in areas like facilities management, IT, uniforms and catering and need buildings to operate in. This provides an opportunity to introduce and/or embed circular procurement specifications in their day-to-day business and supply chains.
- **Public sector procurement opportunities –** Together the group of GLA organisations currently spends almost £11 billion a year on goods and services.[27] In the past the GLA's responsible procurement policy was focused on minimising excess. This meant procuring recycled and reused content, equipment and encouraging procurement of goods derived from natural sources. However, there is now an opportunity to encourage more innovative circular business models and a number of new criteria are currently being reviewed in this regard.

[25] Collaboration for a closed loop value chain: Transferable learning points from the REALCAR project, Institute for Sustainability Leadership, University of Cambridge, January 2016

[26] Towards a circular economy – context and opportunities, LWARB

Employment and the circular economy - job creation through resource efficiency in London, London Sustainable Development Commission

Employment and the Circular Economy – Job creation in a more resource efficient Britain, WRAP

[27] Circular Cities and Government Conference 2016, 4 March 2016, City Hall, London

However, the literature review has also identified that capitalising on these opportunities requires addressing various challenges that currently act as barriers to procuring circular economy outcomes. These include:

- Difficulty in moving from fixed/set capital to revenue budgets;
- Complexity and lack of expertise in assessing where the best opportunities lie;
- Resistance to fundamentally changing existing procurement means, both from within the organisation and from suppliers;
- Unknown costs and benefits, the latter of which likely to take time to be realised; and
- Uncertainty with regard to the extra resource and skills needed to design and run the transition.

In practical terms, these challenges mean that while elements within companies and public authorities may recognise the benefits of moving towards circularity, they struggle to put together compelling business cases to convince wider stakeholders of the need to make firm commitments. However, internationally some progress is underway in this respect. For example:

- The government of Luxemburg has launched the "Fit 4 Circularity" programme to support companies in applying circularity concepts, providing technical assistance to help them identify their growth potential and conduct an evaluation in order to implement a corresponding innovation process.
- In London, LWARB is trying to put together a somewhat similar package of assistance to support businesses with the transition. Section 9 provides details on its emerging Circular Economy SME Business Support Programme currently under development.

Macro-economic considerations

While the environmental benefits deriving from a transition to a CE are relatively clear, the initial evidence on economic and social gains is less so. Various reports have indicated that CE transitions could lead to significant savings and job creation. An example of this is the recent 'Polfree' study[28], carried out by researchers at University College London, focusing on the Macroeconomic case for CE. However, creating new jobs in CE also entails destroying jobs in linear businesses and the net job creation impact of the CE still needs to be fully understood. A recent study[29] by the EIB states that "clearly, there will be winners and losers throughout the economy. Some economies and some companies will be the winners and others will be the losers of this trend and the individual impact that this may have on individual EU Member States and regions needs to be taken into account".

A recent study conducted by Rabobank's Economic Research Department[30] examines this issue in the context of the Netherlands. One of the base scenarios considered concludes that the GDP and job growth resulting from the CE transition would more than offset the GDP and the jobs lost as a result of abandoning linear models in the Netherlands, though it goes on to note that jobs elsewhere would decline as a result.

In the UK context, a related study entitled 'Employment and the circular economy: Job creation through resource efficiency in London' considered the type and level of jobs expected from different parts of the CE, mapping these to the skill base of the unemployed in London. It found that the CE has a lot of mid-level skills (in reuse and leasing) which fill in the 'hollow' that has appeared in London's economy over the past few years (i.e., the majority of current jobs relate to either the highly skilled, or low skilled with a relative scarcity at the mid-level). This suggests that CE jobs in London are likely to be additive.

The mixed evidence above suggests that further research is required to better understand what types of CE businesses are most likely to result in net job

[28] www.polfree.eu

[29] Assessment of access-to-finance conditions for projects supporting Circular Economy, EIB InnovFin, available at http://www.eib.org/attachments/press/innovfin-advisory-report-on-circular-economy-full-report-public.pdf

[30] The potential of the circular economy, Hans Stegeman, Economic Research Department, Rabobank, available at https://economics.rabobank.com/publications/2015/july/the-potential-of-the-circular-economy

reduction, and the extent to which this is significant enough to require pro-active remediation.

Conclusion

The primary and secondary research conducted for this study have demonstrated that the term CE is still relatively unknown at the aggregate economy level in the UK. Both businesses and consumers are more familiar with general legacy trends such as 'sustainability', 'recycling' and increasingly 'sharing economy' due to the success of companies like Uber and AirBnB. As a result, R&D at the macro-economic level tends to focus on narrower areas like climate change and energy use that have become better understood over the last 15-20 years, though there is a growing viewpoint that more substantive transformations of underlying business models are required in the future. **Precedents such as the growth of the Social Enterprise movement would suggest that the lack of an industry body (like Social Enterprise UK) to coordinate progress in CE is holding the sector back.**

Whilst start-up and early stage CE businesses face many of the same challenges as similar stage businesses in other sectors, **it appears that the relatively unproven nature of the business models underpinning CE businesses makes them less attractive as an investment proposition to commercial investors relative to their contemporaries in other sectors.**

There is also the issue of fundamental economics of the business models holding back the progress of CE. The relatively cheap cost of materials compared to labour and the externalities associated with wasting them are still not adequately captured in the costs that firms face. **Therefore firms are not sufficiently motivated to fully explore and develop CE options.**

A significant proportion of CE SMEs interviewees expressed a desire to access growth funding and **cited two main types financing needs – typically c.£1m-2m+ for capital expenditure and £150k-£300k for resource expenditure.** This indicates significant growth potential for CE in line with broader consumer lifestyle trends and the financial contribution made by resource efficiency to business success. **On average, early stage SMEs with unmet funding needs typically require Series A (venture capital) equity in the range of £150k-£300k for resource expenditure to help them expand their business to a stage where they can seek investment from commercial investors and lenders. Based on the demand-side interviews undertaken, this appears to be where a CE FI should focus.** Overall, 42% of the interviewee sample had unmet future need and these could be part of the potential pipeline for a new CE FI. LWARB's emerging CE Business Support Programme could also contribute to the future pipeline of opportunities through to 2020. Given the predominance of SMEs in the UK and Greater London economies - London is home to, 840,000 SMEs businesses (188,000 of which have employees[31]) - the total size of the CE pipeline could be significant. In the absence of robust data on CE businesses, extrapolation using 2015 Social Enterprise data as a proxy indicates that the **potential funding gap (for resource expenditure) may be in an indicative range from £16m - £71m.**

The transition to CE in the SME space could be complemented by some targeted financial support to established companies to undertake circularity projects that would likely not proceed otherwise. Early examples, such as JLR's REALCAR have shown that such investment can reap significant benefits in a relatively short time horizon and indirectly impact SME's through the supply chain. Whilst the interviews have shown that established companies are primarily interested in grant-type financial support (which falls outside the scope of the proposed FI), the FI could retain flexibility to potentially invest in larger companies in the future, for example where there are significant supply chain benefits from doing so.

Finally, while the beneficial impacts of CE businesses are becoming more widely understood, it is important to recognise that **some of the job creation in the CE may represent displacement from more traditional sectors and business models in the economy.**

[31] Source: Using Financial Instruments for SMEs in England in the 2014-2020 Programming Period: Annex Two – Area Overviews (London), January 2015

6. Market gaps and failures

Strategic alignment

The EC has identified CE as an important strategic priority for the 2014-2020 funding horizon. While CE does not currently have wide currency in the UK compared to other European countries like the Netherlands, there is significant potential for it to generate significant benefits in the future – recent research indicates that moving to a CE in Greater London could generate potential benefits of c. £7bn every year by 2036. This means there is strong case to explore how such a transition could be expedited by addressing current market failures.

Market gaps identification

Whilst the social, economic and environmental benefits a more circular economy will bring are compelling, the transition by businesses to delivery models which are less linear and more circular, represents a significant challenge. The analysis in this report has identified both financial and non-financial areas of market failure that limit the development of a more circular economy, and in turn, inhibit business growth and increased competitiveness

The key findings are:

1. **Financial support:** The relatively unproven nature of the business models underpinning CE businesses makes them less attractive as an investment proposition to commercial investors relative to their contemporaries in other sectors. CE SMEs interviewees expressed a desire to access growth funding and cited two main types financing needs – typically c.£1m-2m+ and c.£250k largely driven by whether they needed to undertake capital expenditure or not. **The majority of interviewees stated a need for Series A equity type instruments in the £150k-£300k ticket size.** However, over time some of these companies may require follow-on funding and hence the investment strategy should be flexible enough to allow this and avoid dilution.

   The possibility of the CE FI offering debt products to meet capital expenditure requirements of CE SMEs and achieve portfolio diversification at the fund level was considered. However, on balance, there appears to be sufficient supply of debt finance from existing lenders such as the British Business Bank, Silicon Valley Bank etc., as well as potentially new debt sub-funds set up under the London SME fund (Details in Section 9). In addition early stage investing is a specialist and relatively high risk area, and the number of Fund Managers with a strong investment record across both debt and equity is very limited; hence remaining focused on equity products as the area of greatest unmet market need appears the best way of leveraging the relatively small allocation of £14m to deliver maximum impact.

   The transition to CE in the SME space would need be complemented by ongoing targeted financial support to established companies to undertake circularity projects that would likely not proceed otherwise.

2. **Non-Financial support:** Precedents such as the growth of the 'social enterprise' movement would suggest that the lack of an industry body to coordinate progress in CE is holding the sector back. At this time progress in the Greater London region is being driven primarily by the Ellen MacArthur Foundation and LWARB. For example, at this time it is not possible to collate a directory of self-identified or affiliated CE businesses in the UK beyond the Foundation's CE100 list. Hence, any future FI should seek to align with these initiatives to deliver maximum impact.

3. **Macro-economic impacts:** Some of the job creation in the CE may represent displacement from more traditional sectors and business models in the economy. A new FI should consider this issue when determining its investment strategy and setting its outcome measures. In particular, it should consider holistic and longer-term outcome measures that capture the creation of new businesses and jobs, as well as their longer term sustainability and value generated.

Funding supply constraints

The key findings are:

1. **Historic funding has largely been focussed towards a particular sub-set of businesses that can be categorised as CE**: The data analysis demonstrates that there are a number of existing funding sources available for at-least a subset of opportunities that fall within CE – those that either relate to mature technological areas, or companies that are more stablished in terms of trading history and revenue generation. Investors feel more established businesses seeking capex type funding for investment in production facilities represent less of a risk, and lenders feel more comfortable providing debt finance to such businesses.

2. **The current market failure relates to a supply side gap for early stage CE businesses:** This study has considered the degree of overlap or congruence with existing sources of public and private funding to assess the additionality of a new FI. The time period in which historical sources of funding can be delivered has also been considered. Both demand and supply side interviews indicate a clear gap at the start-up/early stage for both self-identified CE businesses and linear ones looking to transition to CE for revenue funding of up to £300k.

   Of the six investor interviews undertaken only Funding London and Circularity Capital (CC) seem relevant to the need identified. The former invests equity in high growth, early stage companies in tech and science and the latter focusses on CE across North West Europe. However, they do not meet the need here as:

   - FL (a) targets two sectors (tech and science) that are much more mature and (b) have significantly higher growth potential than CE (e.g., they can scale far more quickly than CE businesses, including across the world due to cloud computing and the internet, while CE businesses are more akin to charities in that they often source materials locally, exist for a social purpose etc.); and
   - CC is made up of CE experts so they have a better understanding of the area and its risks, but they are mitigating this by investing across (a) a larger geographical region that includes countries like the Netherlands where there is much more of an CE ecosystem (e.g., CE credits for use when bidding for government tenders for infra) and (b) 70% of their new fund will focus on more mature companies that are already revenue positive.

   This suggests there is a defined gap that can be met by a CE FI, albeit it appears to be more of a JEREMIE, rather than a JESSIC FI that is required.

3. **Funding constraints are only one of the barriers to market development:** Given the important link between financial and non-financial support, any FI would need to be aligned to other forms of non-financial business support to build market awareness and a pipeline of sustainable CE businesses over the long term. Alignment with the proposed LWARB TA facility will be critical.

Part two: Delivery and management of financial instruments

7. Key findings from other relevant UK FEIs

Introduction

This section sets out key findings from two types of UK funds relevant to the proposed FI:

1. **Funds of specific interest,** namely the recently launched CE fund in Scotland funded by ERDF and Scottish government, the London SME investment focussed London Co-Investment Fund (LCIF) and three UK-based CE VC funds; and
2. **Funds of general interest**, namely the experience of existing LGF funds.

It is structured to address the requirements set out in the Ex Ante assessment guidance Manual, specifically:

- Collation of relevant available information on past experiences, particularly those that have been set up in the same country or region as the envisaged FI;
- Identification of main success factors and/or pitfalls of these past experiences; and
- Using the collected information to enhance the performance of the envisaged FI (e.g. risk mitigation).

Funds of Specific Interest

Zero Waste Scotland - Circular Economy Investment Fund

Background: The Circular Economy Investment Fund (CEIF) was launched by Zero Waste Scotland (ZWS) in March 2016, with part ERDF funding to support the development and implementation of CE practices in Scotland. It is part of ZWS's Resource Efficient Circular Economy Accelerator Programme (RECEAP). RECEAP aims to deliver a step change in the scale, range and depth of CE and existing resource efficiency work across all business and social economy sectors in Scotland[32]. Within this overall framework, CEIF aims to stimulate the development of CE by encouraging collaboration across value chains, including enterprises and academia.

Relevance: CEIF is of particular interest due to its close thematic and strategic alignment with the proposed CE FI for Greater London. For this reason its investment strategy and design is considered in greater detail in the lessons learnt set out below. However, it is important to note that (unlike the London FI) it is grant focussed.

Lessons learnt: The £18m fund has an investment period from 2016 to 2018 and is provide funding and business support to SMEs and non-profit organisations, (charities and social enterprises).

Projects must meet the following four requirements to be eligible for funding:

- Contribution to the CE: Projects must meet the Fund's strategic objectives;
- Project development stage: Projects must have demonstrated proof of concept and have potential for commercial exploitation within five years, to enable them to progress to a stage at which they are attractive to follow-on funders or investors;
- Significant potential for carbon savings: Projects must outline CE benefits in the form of a carbon saving (measured in tonnes of carbon dioxide equivalent) or through adding value to a 'waste' product or material; and
- Commercial or industrial sector: Projects should align with the following priority sectors:
  - The bio economy (food and drink);

[32] Source: http://www.zerowastescotland.org.uk/content/circular-economy-investment-fund

- Built environment (construction and demolition);
- Energy infrastructure (oil and gas decommissioning, renewables, transmission); and
- Remanufacture.

However, ZWS retains discretion to provide support for organisations engaged in other sectors provided the project meets its aims and objectives.

CEIF was formally launched with an 'Open Call' in March 2016 after a 12-18 month preparation period to obtain funding approval. The online grant funding application process comprises a two stage process:

- Stage 1: Outline assessment of eligibility and scope; and
- Stage 2: Detailed assessment, including technical and financial due diligence.

Based on previous experience of funds across other sectors, CEIF expected 120-150 Stage 1 applications over the first 12 months. It expected to take 10%-20% of these through to Stage 2 (i.e., 13-27 applicants), and c.25% of these (i.e., c.five applicants) would be likely to receive funding. These estimates have been broadly accurate - at the end of its first six months (September 2016), 100 applications have been received, of which 30 have progressed to Stage 2. The total funding request for these Stage 2 applicants is c. £14m.

Applicants were asked to express interest in one of two funding strands – lower value funding applications in the £20,000 - £99,999 range and higher value applications in the £100,000 - £1,000,000 range. While the average ticket size at award remains unclear pending Stage 2 due diligence, the majority of selected companies have applied for the higher value range.

CEIF has been structured as an 'open' fund at launch, which means there is no closing date for eligible projects. The high-level assessments at Stage 1 are being conducted by ZWS using a dedicated team of three staff. These draw on broader support from c.10 staff from other parts of ZWS to bring forward the CE pipeline.

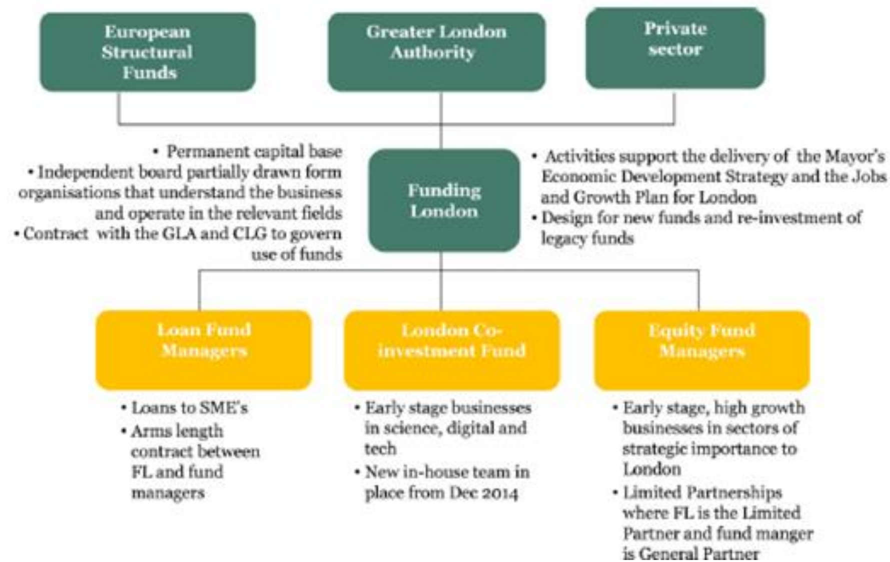
In addition to the open call, ZWS are planning a series of four to five industry specific competitive calls. The first of these was the 'Cities and Regions' call, launched at the end of September 2016 with a nominal allocation of £1m. ZWS retains the flexibility to increase this allocation depending on market interest and the quality of applications. Similar calls are planned in industries like bio-economy and manufacturing. The indicative allocation for each of these range from £0.5m - £2m. ZWS have not made a budgetary allocation between open and competitive calls, and there are no concentration limits at either the sector/industry level or at the investee level. ZWS also remains open to the possibility of procuring external advisors with industry specific technical expertise to conduct the Stage 2 assessment on these calls.

Overall, CEIF has been designed with a highly flexible investment strategy and structure well-suited to the developmental stage of the CE. The indicative metrics outlined above – including estimates of likely demand in the Scotland– provide a helpful comparator for the proposed CE FI in Greater London.

Funding London- London Co-Investment Fund

Background: Funding London (FL) was established in 2004, as an independently procured Holding Fund with a specific long term mandate to support the Economic Development Strategy for London through SME funding activities. Its funding sources include ERDF, ESF and the London Development Agency (now GLA). It generally channels this European and UK funding through competitively selected Fund Managers (FMs) to London businesses as either debt or equity; the only exception is the London Co Investment Fund (described below) where an in-house team has been established by Funding London to carry out the day to day business. This model is depicted in the diagram below.

The structure allows FL to partner with FMs and indirectly with investors (such as VC's and angels). It also works closely with other organisations such as Capital Enterprise to develop the pipeline of new projects in London.



Source: Funding London, Business Plan for the Financial Year ended 31 March 2016

To date, FL funds have achieved the following impacts:

- More than £39m invested via three equity and four loan funds to support 444 SMEs;
- Co-investment multiple for venture funds at 4.4 times enabling a total of £106m to be deployed into small businesses; and
- More than 2,000 jobs created or safeguarded.

Funding London has achieved a co investment multiple of 6.2x.

Relevance: Two of the FL funds are of particular interest due to their focus on early stage equity investment into London SMEs. The first is the London Co-investment Fund (LCIF). Launched in December 2014, this will invest £23m over three years into 156 London based seed stage companies in the science, digital and technology sectors. It is managed by an in-house FL team and six co-investment partners were selected through a competitive tendering process. Approximately 10% of its investments to date have been into early stage companies who have aspects of circularity embedded in their business models; the majority of these are in the sharing economy space.

The LCIF aims to leverage significant amounts of private sector co-investment alongside its own investments. At launch it expected that businesses receiving investments from the LCIF would receive at least a further £66.7m from private sector co-investors to achieve a target of £2.9 per £1 of LCIF invested[33]. The table below provides a summary of its performance to date:

LCIF Performance Metrics	*Jan 2015 – Aug 2016*
Amount invested	£10m
Companies funded	60
Jobs created	176
Total funding raised	£70m
Co-Investment multiple	6x

The second is the older MMC London Fund (one of the funds under the 'Equity Fund Managers' in the diagram above). Launched in April 2013, this will invest £28m into early-stage growth businesses, typically in Series A rounds, alongside private sector co-investors. It is managed by MMC Ventures. As of December 2015 it had invested £16.6m in 19 SMEs, creating 438 jobs and safeguarding 209[34].

[33] Source: Funding London: Business Plan for the Financial Year ended 31 March 2016 (February 2015)

[34] Source: https://www.london.gov.uk/about-us/mayor-london/london-sme-fund (Accessed on 5/10/16)

Lessons learnt: Key lessons from the FL experience are:

Key lessons identified by Funding London [35]

"There was felt to be a need for a fund of sufficient scale, rather than several fragmented funding pots, in order to ensure higher quality fund managers to be appointed, leading to higher quality investments and the ability to follow-on funding.

With significant market failure gaps and only a limited sum of public funding to address these, it was felt to be important to utilise money in a way that would maximise leverage of additional funding – hence a co-investment approach was seen as beneficial.

In order to ensure the highest quality investments, it was felt that the fund should not be too tightly focused on specific sectors, and so the focus for investments is fairly broad."

Discussing these with FL has yielded further specificity around the broad theme of the role of the FMs in delivering the investment strategy:

- As outlined above, the Call for Proposals from FMs set out the strategic areas the fund would invest in, but did not specify specific sub-sectors. This was done to enable FMs to apply their experience and networks to make the best investment decisions in the target geography and respond flexibly to market conditions. The lack of sub-sector targets is particularly applicable to the CE FI as target beneficiaries can be found in all sectors of the economy;
- Initial targets on portfolio size were tested and revised through the competitive bidding process where bidders were asked to set out what they could deliver operationally. As an illustration, the winning bidder proposed a target of c.18 companies based on the likely time commitment required from its existing team of four investment managers and the period available to make investments (c. three years by the time the fund was operational). This highlights the importance of checking the reasonableness of targets developed during the design phase in the execution stage;
- The contract with the FM was negotiated to achieve the right balance between incentivisation and value-for-money for the Managing Authority. Standard Limited Partner agreements in venture capital typically follow a '2% annual management fee, plus 20% carry above agreed hurdle rate' structure. However, this was tested during the competitive process and a higher annual fee but lower performance element was agreed. This met the Managing Authority's objective of ensuring that the FMs remuneration was broadly proportional to the capital deployed and recognised that the early stage investment model is characterised by a high – c.40% - failure rate, offset by a small number of significant successes; and
- Funding London conducted extensive market research and soundings before launching the procurement process for FMs, which resulted in six bids at PQQ stage. The PQQ evaluation assessed track record of the bidders in terms of financial metrics, co-investment experience and London-focussed networks.
- Three bidders were short-listed on to a framework by a panel of experienced venture capitalists, and one of these VCs joined the Investment Committee to provide continuity in oversight of the FM. The framework contract meant a capable replacement could be appointed quickly in case the selected FM – MMC Ventures - fell through. The process and governance described above represent helpful precedents for the CE FI.

UK-based CE venture funds

Background/Relevance: As the CE gains momentum and profile, it is beginning to draw interest from the VC community. The table overleaf provides an overview of three such UK based VC firms. Of these, Bethnal Green Ventures is the most established – it is a UK Cabinet Office-backed social accelerator that has been operating on a cash-for-equity since 2008 and has invested small sums in a number of technology-enabled CE businesses since that time. Eco Machine Ventures is a more conventional VC focussing on high-technology and hardware investments since 2013 with seven portfolio companies; it exited its sole CE investment in a plastic recycling company in April 2016. Finally, Circularity Capital is the first

[35] Source: Using Financial Instruments for SMEs in England in the 2014-2020 Programming Period, Annex 2 (January 2015)

solely CE focussed VC firm of significant scale; the fund has not made any investments to date but is seeking to invest £1m-£5m in mature CE businesses from North West Europe based on publically available information.

- **Lesson learnt:** All three companies emphasise the importance of the right mix of skills as well as local networks to identify quality investment opportunities. For example, the investment team and General Partner Advisory Committee at CC is made up of highly experienced individuals with backgrounds in industry, private equity and venture capital investing and resource productivity. CC also has partnerships with a number of innovation platforms and initiatives, such as:
  - Circular Economy 100 business innovation platform comprising large multinational corporates and SMEs;
  - Circular Economy 100 regional hubs and universities;
  - The Great Recovery, a UK based circular economy programme for design focussed businesses funded by Innovate UK;
  - Centre for Remanufacturing and Reuse, an independent organisation specialising in advice and promotion on remanufacturing, reuse and reconditioning; and
  - Scottish Institute of Remanufacture and Scottish Enterprise Manufacturing Advisory Service.

The table overleaf provides a brief synopsis of the UK based VC firms.

Name	Fund size	Investment period	Investment strategy	Geographic focus	Comment
Circularity Capital	£50m	10 years from first close	• Targeting businesses with good growth fundamentals and strong circular economic value creation potential • Proven revenue model and are profitable, with EBITDA >£500k and EVs of up to £20m; • Portfolio split: 70% in established businesses with and 30% in growth stage businesses	North West Europe	• Fund yet to launch (Expected late 2016/early 2017)
Bethnal Green Ventures	£2m	Continuous	• Targeting very early-stage ideas technology start-ups, pre business plan • In the areas of health, education, sustainability, democracy and society	UK	• Social accelerator programme investing £15,000 in each team in exchange for 6% equity • Provide three month programme of support and advice to help build, test and launch each start-up • Alumni include self-identified CE company Fairphone
Eco Machine Ventures	Not available	Not available	• Targeting B2B hardware technology that has the potential to scale in large proven markets • Broadly focused on Energy, Transport, Circular Economy, Smart City and Industrial High-Tech sectors. • Typically invest up to £500k at the seed stage, and up to £2m for later-stage investments	Global	• Have only invested in one CE company, Recycling Technologies (now exited) • Work with a number of partners from industry and financial services to add further value to portfolio companies

Funds of General Interest

London Energy Efficiency Fund

Background: The £110m LEEF Urban Development Fund, established in 2011 through the London Green Fund, provided debt finance to seven energy efficiency projects within the 33 London boroughs. Its funding came from ERDF, the GLA and LWARB and was managed by the Amber Infrastructure Ltd, who were responsible for securing additional project level funding and deciding which projects were funded, lending between £1m and £20m per project. Eligible projects also had to deliver non-financial performance targets;

- Energy Savings Ratio of at least 20% compared to conditions prior to investment; and
- An annual carbon reduction of less than £5,000 per tonne of CO_2.

LEEF has achieved leverage of 4.5, i.e. for every 1 pound another 4.5 pounds were invested by private/public investors.

Relevance: LEEF has provided debt finance to projects in line with its investment strategy. Sample projects include energy efficiency measures for a number of the Croydon Council's properties, including 50 primary schools and a 1960s art centre, and a regeneration project of 15,000 residential units in Greenwich Peninsula. In comparison to energy efficiency, the CE segment of the green economy is at a much more nascent stage of development and the market gaps analysis in Section 5 has identified a need for equity investment; however the proposed CE FI aims to play a similar role to LEEF in developing the market.

Lessons learnt: LGF had to respond to significant market changes during the implementation phase. LEEF initially targeted the public sector, but following the financial crisis in 2008 these entities chose to access cheaper finance from the Public Works Loan Board (PWLB), thereby reducing demand. In response LEEF refocused its marketing efforts towards universities and charities which cannot access the PWLB. This highlights the importance of pro-active marketing to attract sufficient quality projects to the fund, an important area for the proposed CE FI as its target beneficiaries may not self-identify with the term 'CE'.

Foresight Environmental Fund

Background: The £60m Waste Urban Development Fund, established in 2011 through the LGF, provided equity investments to eight projects within the London region with total capital mobilised to date of £85m. Funding came from ERDF and LWARB to support viable but not commercially attractive public and private sector projects. The fund was managed by Foresight Group, with average ticket sizes of £7m and average project sizes of £12m, with private sector pari-passu investment sourced at the fund-level. FEF has achieved leverage of 2.4, i.e. for every 1 pound another 2.4 pounds were invested by private/public investors.

Relevance: Similar to LEEF, this fund is indirectly aligned to the proposed new CE FI. It's past investments include a 30,000 tonnes per annum AD plant in Dagenham, East London and a renewable energy development company to develop an 85,000 tonnes per annum materials recovery facility and 4.5MW waste to energy plant in South Croydon. It is of interest due to the experience of the Fund Manager, as well as implications for successor funds.

Lessons learnt: Similar to LEEF, the initial pipeline forecast for Foresight did not materialise. For example, the development of the London Thames Gateway Heat Network project was suspended in April 2011 due to the poor market response to the Heat Purchase Agreement Invitation to Negotiate[36]. One of the key barriers was the limited number of sites available for waste projects within the defined London boundary, and the high costs associated with available sites.

In this challenging context, partners such as GLA and LWARB assisted with promotional activity to build the pipeline through public relations activity and their own operational networks. The FEF experience also highlights the importance of boundary definition and the need for a balanced, appropriately skilled investment team to make and manage investments in a dynamic market environment.

[36] https://www.fi-compass.eu/sites/default/files/publications/case-study_london-green-fund_uk.pdf

Overall, the market targeted by the two previous LGF funds now appears to be well- served. This study has found no evidence of demand for similar funds, nor for CE fund to target such projects.

Conclusion

The analysis above highlights that the experience of CE and early stage SME investing is more directly relevant to the design of the CE FI than the experience of other historic LGF sub-funds (e.g. LEEF and FEF). The analysis did not find evidence of any direct competitor to the proposed CE FI in the current London market, demonstrating the clear additionality that such a fund would bring.

Applying the lessons from precedent funds to the proposed CE FI results in the following recommendations:

- **Fund size:** Funds needs to be of sufficient scale – typically at least £20m- to attract quality FMs, and enable risk diversification across a portfolio of investments. The proposed allocation of £14m for the CE FI suggests that opportunities to augment this through pooling with other funding sources should be pro-actively explored;
- **Sectoral focus:** CE specific funds in both the public and private sector are targeting businesses with circular business models across all sectors of the economy rather than specifying specific sub-sectors for investment. Like CEIF, this suggests that the CE FI should follow an investment approach that considers the five priority focus areas for London but perhaps is not restricted solely to these;
- **Pipeline development:** both CE and general funds need to pro-actively monitor their investment pipeline to keep pace with changing market conditions. The selection of a FM with the appropriate skills, investment track record and networks will be crucial in this regard. The nascent stage of the CE sector means only a limited number of businesses self-identify with the term and hence considerable upfront branding/marketing work will be required to generate market interest. Alignment with strategic partners such as LWARB (Details of its emerging CE business support activities are set out in Section 10) will also be a critical component of pipeline development; and
- **Leverage:** Similar to precedent funds like FEF, it appears that Fund level contributions from mission aligned investors are more likely for the CE FI. While project level contributions are possible, they would require considerable effort to source relative to the small ticket size of £150k-£300k based on investee requirements. Similarly, the CE FI should be able to achieve similar levels of 2-2.5x leverage from the UK supply side market; however there may be potential to exceed this through accessing co-investment from alternative sources such as crowd funding platforms. Given this is primarily an equity fund, such co-investment should be on pari passu terms.
- **Governance:** the roles and responsibilities of the FM must be clear and the remuneration mechanism (management fees and carry) should incentivise performance.

These lessons have been reflected in the development of the investment strategy and fund structure for the CE FI in the following sections.

8. CE investment strategy

Introduction

If the EIB and the Steering Group decide to proceed with the establishment of the CE FI based on the assessment undertaken in part 1 of the report, the investment selection criteria for projects should include a number of factors that are outlined in this section.

This investment strategy will be subject to revision following any subsequent Ex Ante Assessment updates and will be informed by the prospective project pipeline at that point.

Strategic alignment

Based on the analysis contained in Part One of this report, investments should align with national and regional strategic priorities in respect of transitioning to a CE, namely:

- Alignment with ESIF Thematic Objective 6, 'Preserving and Protecting the Environment and Promoting Resource Efficiency' at the European level;
- Alignment with Priority Axis 6 of the England Operational Programme at the national level. In particular, Investment Priority 6f which relates to 'Promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector, water sector and with regard to soil, or to reduce air pollution'. The CE instrument shall specifically target resource efficiency across all sectors of the Greater London economy; and
- Alignment with other CE initiatives to stimulate the wider eco-system, such as LWARB's CE Roadmap and Business Support Programme and ongoing activities of stakeholders such as the Ellen McArthur Foundation (Circular Cities Network, CE100 etc.). The CE instrument could play an important role in this eco system by providing capital to promising early stage SMEs, an area of unmet need in the current market.

Permitted investments

Based on the work undertaken as part of this assessment, this may include:

- **Sector focus:** This report has had a clear focus on the five areas set out in the scope section, but the analysis has shown that circular business models are prevalent across virtually all sectors of the Greater London economy. Levels of business activity in different sectors reflect changing economic conditions, for example electricals and plastics are currently subdued due to economic factors; however this may change over time. In addition, technology is integral to the business models of a majority of CE businesses considered for this study.
- As circular economy businesses exists across all sectors of the economy, it is recommended that investments focus on companies whose business models exhibit the following defined characteristics:

1. **Renewable inputs** –they use renewable energy or secondary materials as the inputs for products;
2. **Recover value** –they are involved in the recovery of value at end of life through biological or technical (i.e. non biological) recycling;
3. **Prolong product life** –they are engaged extending product life through maintenance, designing for durability, re-use and re-manufacture of products and components;
4. **Products as services** –they sell access to products while retaining ownership of assets or dematerialise through books or online shopping; and
5. **Sharing economy** - they are engaged in sharing assets (e.g. cars, rooms, appliances) through sharing platforms that reduce environmental impacts of providing the product use to consumers.

- **Investment products:** Primarily Series A equity finance, for flexible use including resource expenditure with ticket sizes of up to £300,000 per

investee. However, the fund should retain flexibility to provide follow-on finance (Series B/C) over time.

- **Investment recipients:** Initial focus on early stage companies, defined as companies with a trading history of c. five years. Such investees should also meet the Commission's definition of Small and Medium Enterprises (SMEs), where Small companies are defined as having less than 10 staff and turnover or balance sheet no greater than €10m, and Medium companies are defined as having less than 250 staff and either turnover no greater than €50m or balance sheet not greater than €43m.[37] The fund should also retain flexibility to provide non-grant support to established companies.

Geography

The geographic business focus will be the Greater London area only. As agreed with LWARB, this will be defined by considering the following four criteria, with each being tested at the point of investment;

1. Companies headquartered within the London Borough Boundaries; or
2. Companies having greater than 50% of their employees based within the London Borough Boundaries; or
3. Companies having greater than 50% of their customer base within the London Borough Boundaries; or
4. Companies deriving more than 50% of their feedstock from the London Borough Boundaries.

Investment returns

VC returns typically reflect the high rate of failure offset by a small number of major successes. Of the examples considered, CC's target of gross returns of 20%-25% IRR on invested capital is the closest private sector proxy, but this reflects a 70% portfolio allocation towards established companies and a broader geographic remit than the proposed CE FI. The MMC London Ventures does not invest in CE but it has generated a multiple of 1.25x investment across its cross-sectoral portfolio of early stage investments. This would suggest that an early stage focussed CE FI managed by a fund manager with the right skill-set, networks and incentives may reasonably be expected to achieve target returns in the mid-teens.

The London Co-Investment Fund, managed by FL, has only had one exit to date but has achieved 6x co-investment by collaborating with a broad range of co-investment partners. As LCIF is focussed on high growth technology and science companies, it presents a more attractive proposition for complementary finance from the private sector than the proposed CE FI. A co-investment multiple of 2-3x may be more realistic for it.

Target outcomes

As the CE FI is targeting TO6, specifically IP6f, it needs to address the following three output measures:

- C1: Number of enterprises receiving support
- C5: Number of new enterprises supported (C5)
- C29: Number of enterprises supported to introduce new to the firm products

It should also target TO3 outputs as a secondary additional measure, as set out in Section 3 of this report.

Regulatory compliance

- Investment of FIs into projects will be required to be undertaken in a state aid compliant manner. GLA has not sought State Aid notification for its previous funds, including the previous SME fund which was delivered under the 2007-13 GBER. GLA does not anticipate seeking a State Aid notification for the CE FI as it will make investments in accordance with either the Market Economy Investor Principles (which may include use of the reference rate methodology in the event there are no comparable transactions in the market against which to benchmark), or the General Block Exemption Regulation (GBER)[38], in particular, section 3 (Aid for access to finance for SMEs) of Regulation 651/2014.

[37] http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

[38] http://ec.europa.eu/competition/state_aid/legislation/practical_guide_gber_en.pdf

Structural Funds regulations require that investments adhere to EU Rules, which includes, for example, ensuring each project has 'eligible expenditure' that is greater than, or equal to, the FI project commitment plus associated 'match' funding.

9. Circular Economy Fund design

Introduction

The aim of this section is to provide an initial recommendation of the possible structure of CE FI, based on:

- The proposed investment strategy outlined in Section 8;
- The range of options available within this context; and,
- Permissible structural options in respect of the set-up and operation of an UDF, or alternative vehicles capable of undertaking the role of an UDF, as defined by Article 33 of the Common Provisions Regulations (CPR).

This section is also intended to address the requirements in the Ex Ante assessment guidance Manual, specifically:

- Consistency of the envisaged FI with other forms of public intervention;
- Selection of the most appropriate implementation arrangement and the envisaged combination of grant support; and
- Definition of the governance structure of the FI.

This recommendation is subject to possible changes resulting from:

- Any legal advice taken to test regulatory compliance; and/or
- Testing the proposal with CLG for acceptability; and/or
- The ongoing development of the project pipeline, project funding needs and the implications this may have on the possible structure going forward.

Fund Structure Considerations

There are three main considerations that provide context to the structural design of the CE FI:

1. As per Appendix A, the scope of work for this study asked for us to consider fund structuring options for a CE FI in the context of its suitability as part of an existing, or new LGF UDF. However, the work undertaken has revealed that the CE market is at a relatively early stage of development and current market failures relate to the lack of resource expenditure for early stage businesses. As such, the proposed CE FI appears to have greater alignment to funding aimed at improving access to finance for SMEs, than JESSICA funding, which to-date has been deployed via the LGF. At the meeting on 20/09/16, the Steering Group agreed that:

- Fund structuring options should be considered in the context of London's future SME support programme, the JEREMIE component of which has been managed through the FL Holding Fund; and
- An external fund manager, to GLA and LWARB, should be procured to manage the CE FI.

2. The work on the proposed CE FI is being undertaken at a time when discussions are underway regarding creation of a London SME fund, an umbrella fund that pools potential sources of European funding for the 2014-2020 period. The London SME fund (excluding the CE FI) is expected to be a £100m fund with debt and equity sub-funds; a 'Fund-of-Funds' (FoF) structure in other words. The FoF commitments are anticipated to be:

    a) £25m from ERDF;

    b) £50m from EIB; and

c) £25m from other sources, with the EIB funding being predicated on securing the £25m from other sources at the FoF level.

This funding could potentially be divided into two types of sub-funds:

- Equity funds, including a Series A Venture fund and Co-Investments fund; and
- Debt funds, including Microloan fund, Small Loan Fund and Mezzanine fund.

If the CE FI is included within the London SME Fund, there are two possible options:

i. The £14m allocation could be treated as additional to the £100m; thereby creating a combined FoF of £114m. In this case the identified £25m gap remains as before; or

ii. The £14m allocation could be subsumed within the £100m, reducing the funding gap to £11m (rather than £25m). This would be achieved through a stipulation that co-investment of at least £14m must be secured at the SME level.

3. Finally, the GLA is currently awaiting legal advice pertaining to whether FL can be appointed to act as the Holding Fund for the London SME fund, or whether this needs to be competed. In the former case, FL will be invited to prepare a detailed business plan for the establishment and implementation of the FoF and underlying product funds, taking account of the recommendations in the ex-ante assessment. If this is not the case, a formal procurement exercise to appoint a FoF manager shall be launched and this will have a timing impact on establishment.

The remainder of this section therefore considers fund structuring options in this context.

Fund Structure Options

The four high level structural options identified for the CE FI are:

#	Option	Description
1.	**As a standalone fund**	As a stand-alone fund with a dedicated external FM to consider and process applications for funding, make investment decisions and undertake ongoing reporting and monitoring.
2.	**As a sub-fund of the London SME Fund**	As one of multiple sub-funds within the London SME Fund with an external FM. The external FM could be procured to undertake more than one of the sub-fund mandates (including for the CE FI), but the funds themselves would be separated legally and from a branding/market perspective.
3.	**As a CE branded instrument within a sub-fund of the London SME Fund**	The CE allocation is made into a yet-to-be procured sub-fund of the London SME Fund, whereby it is ring-fenced for investing only in projects that align with the CE FI investment strategy.
4.	**As a merged pool of funding within a sub-fund of the London SME Fund**	The CE allocation is made into a yet-to-be procured sub-fund of Holding Fund, whereby it could be invested in CE companies if and when they presented themselves.

Of this long-list of options, option four was rejected for its failure to meet strategic objectives of the CE FI as:

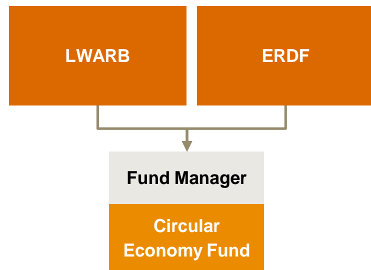
- Part 1 of this report has identified persistent market failures with respect to investment in CE companies. Supply side obstacles are exacerbated by classification issues on the demand side, with a large number of potential investees not self-identifying with it due to a lack of understanding and information. In this context, increasing the profile of the circular economy through a clearly branded FI is key to future market development. Merging the CE allocation with more generic monies would significantly dilute this focus; and

- The £7m allocation from LWARB is specifically ring-fenced for expenditure on CE only and cannot be diverted to any other purpose as per the 2015-20 Business Plan.

The short-list of three remaining options is considered below. From a regulatory perspective, all three structures are permissible under European legislation, in particular Article 38 on Implementation of Financial Instruments[39].

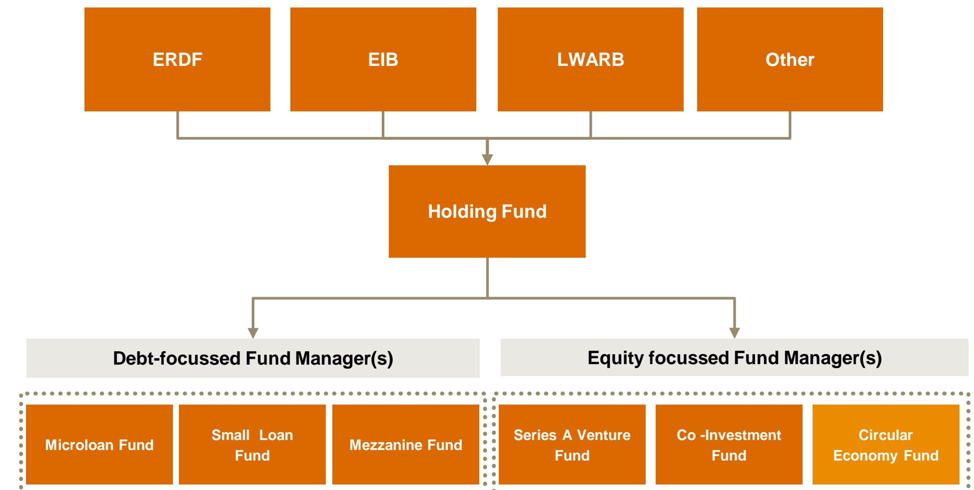
Option 1 – Standalone fund

The diagram below shows £14m of contributions from LWARB and ERDF sources into a stand-alone CE fund managed by an external FM. There is no Holding Fund in this structure.



Option 2 – Sub-fund of the London SME Fund

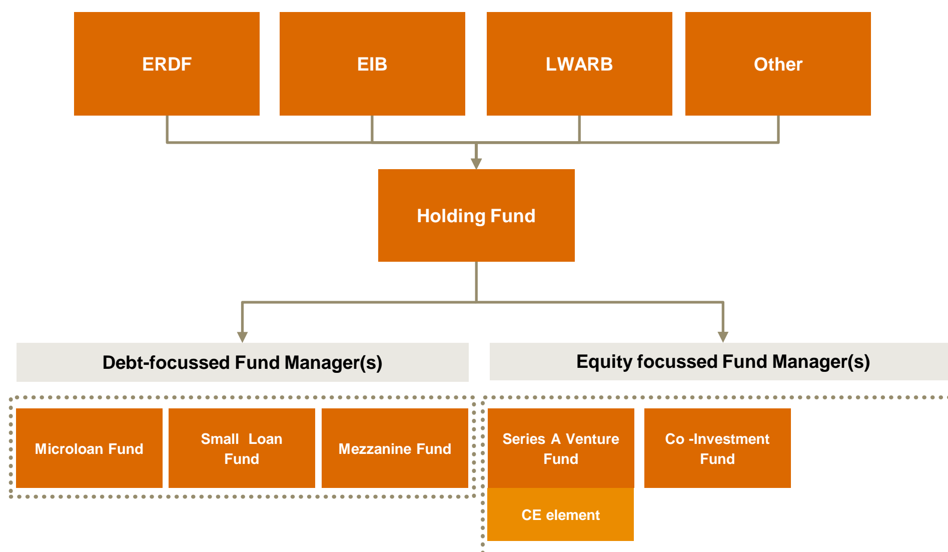
This option envisages the £7m contribution from LWARB being combined with funding from ERDF, EIB and other sources as part of a London SME fund. The structure envisages a single Holding Fund overseeing a portfolio of equity and debt funds. In relation to the CE (equity) Fund, the Holding Fund manager could either procure an external FM to undertake investments for the CE fund only or one that performs this function across a number of similar sub-funds.



[39] Source: REGULATION (EU) No 1303/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, 17 December 2013 (http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1303&from=EN)

Option 3 – CE branded FI within a sub-fund of the London SME Fund

This option is similar to Option 2 in terms of the Holding Fund structure. However, instead of setting up a legally separate new fund for CE, it envisages the £14m allocation being combined with others in a new sub-fund whilst remaining ring-fenced for CE investing only.



Recommended fund structure option

The three possible fund structures were assessed against the following criteria agreed with the Steering Group on 06/10/2016:

1. Ability to raise the market profile of CE in the Greater London area;
2. Scale of opportunity (i.e. sufficient size to attract Fund Manager interest);
3. Ability to attract private sector complementary funding;
4. Fund and associated cost minimisation (e.g. fund establishment, project due diligence, investment decision making, reporting and monitoring costs); and
5. Speed of implementation.

The table below sets out the scores for the three options against the five criteria. The options scored 10, 11 and 12 respectively out of the maximum of 15. This demonstrates that all three options are broadly viable.

	Raising market profile of CE	*Scale of opportunity*	*Private sector funding*	*Cost minimi-sation*	*Speed of implement-ation*
Option 1	✓✓✓	✓	✓✓	✓	✓✓✓
Option 2	✓✓✓	✓✓	✓✓	✓✓	✓✓
Option 3	✓✓	✓✓✓	✓✓✓	✓✓	✓✓

Note: '✓✓✓' indicates highest possible score

1. **Ability to raise the market profile of CE in the Greater London area:** Options 1 and 2 were considered preferable due to clear branding of the CE element. Option 3 could potentially result in a lower profile for the CE element as it is subsumed within a larger fund. However, this risk could be mitigated through appropriate contractual arrangements and marketing programs;
2. **Scale of opportunity:** The FL experience in Section 7 highlighted the importance of creating funds at scale with flexible investment strategies to attract high quality FMs. For this reason Option 3 was considered most attractive to potential FMs as it would create the largest fund size of the options under consideration.

3. **Ability to attract private sector complementary funding:** This will be one of the key criteria used to select external FMs under all three options, so they score similarly. However, Option 3 is considered marginally preferable as the larger sub-fund size may attract more market interest from the FM community.
4. **Cost minimisation:** Options 2 and 3 would incur higher aggregate costs due to the Holding Fund layer in the London SME fund structure but these would typically be dispersed proportionally over all sub-funds; at the individual sub level the economies of scale and resultant efficiencies within the London SME Fund can reasonably be expected to result in lower costs than those of setting up, operating and monitoring a relatively small, standalone structure in Option 1. Option 2 and 3 are relatively similar – whilst the maximum number of FMs may be one less under Option 3 (five, compared to six under Option 2), this benefit may be off-set by the reporting requirements for the CE FI as it is aligned to PA6 (not PA3).
5. **Speed of implementation:** Option 1 would be the fastest to implement as the six to nine month procurement process could be launched after obtaining approvals to proceed. Options 2 and 3 would both take longer as they involve an extra step, either in the form of FL formulating a business plan if it is directly appointed, or the procurement of the Holding Fund manager.

Other considerations

Fund manager appointment

The appointment of a FM should take account of lessons learnt regarding the screening and short-listing of bids as outlined in Section 8, as well as broader market capacity and timing considerations.

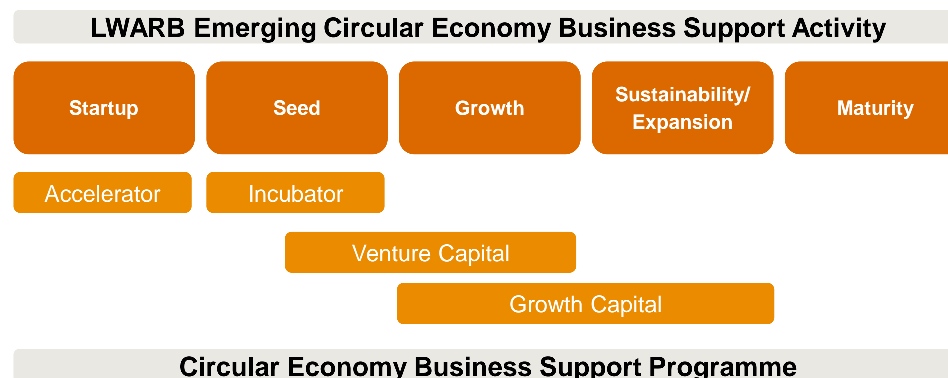
Managing the CE funding under any of the three options above requires a combination of circular economy and venture capital experience in the Greater London region. LWARB have clarified that they do not wish to undertake the role for this CE FI. There are currently no fund managers with prior CE experience due to the nascent stage of the market, albeit some CE-focused funds are currently emerging. Hence, there appear to be synergies in combining the fund management function for the £14m CE allocation with other similar equity funds to elicit strong proposals from quality FMs.

The CE allocation could be contractually ring-fenced in a number of ways, for example by requiring FMs to employ a dedicated CE focussed investment manager with appropriate sector experience to make and manage investments.

Alignment with other investment products

It will be necessary to consider ongoing complementarity of the CE FI with other market support products in Greater London, specifically (1) LWARB's emerging CE programme and (2) the market need for an incentive mechanism to drive established companies towards CE initiatives identified in Section 5.

The diagram here presents an overview of LWARB's emerging CE business support activities. This comprises of four activities that together address the full lifecycle of businesses from start-up to maturity. LWARBs accelerator and incubator should lead to the creation of a CE pipeline with a high level of readiness for Series A and B investment from existing and new sources, including the proposed CE FI. It will be important to ensure the allocation of roles/responsibilities between these project development facilities and that of the CE FI fund manager are clearly defined, particularly in terms of deal sourcing and project structuring to avoid duplication of activity and cost, or lack of alignment which could also lead to cost inefficiencies.



Each of these is described here.

Activity	*Duration*	*Start*	*Description*
Accelerator	three-four months	Summer 2017	• Collaborate with one to two delivery partners to offer hand-on support to two cohorts (comprising 10-12 start-ups each; total: 20-24 p.a.) • Cohorts aligned to two of the five focus areas
Incubator	12-18 months	TBC	• Support seed stage companies preparing for series A investment • Expect c.50% of accelerator companies to transition to incubator stage (Total: 10-12 p.a.)
Venture Capital/ Growth Capital	Ongoing	First close in Dec 2016/ Jan 2017	• About six to ten seed stage companies from the incubator are likely to require VC funding (Series A & B) • LWARB has contributed towards Circularity Capital fund focussed on growth to mature businesses • 40% of the CC pipeline is in Greater London • LWARB has no decision making role in the CC fund
CE Business Support Programme	36 months	Jan 2017 – Dec 2019	• Structured business support including one-on-one support and workshops tailored to SMEs • LWARB will provide c.60 hours of support per SME (higher than the minimum of 12 hours stipulated in the contract) • Activities will include services such as market research/analysis/appraisal, business case or model business model development, access to finance and support with funding applications. • Aims to support 40 – 60 SMEs over a three year period

In addition to LWARB's activities there are also a number of other emerging CE programmes such as the London Cleantech Cluster and a green economy innovation centre located in Beddington, Sutton. These will help develop the pipeline of projects for a potential CE fund going forward and catalyse the transition to CE in the Greater London area.

Governance

The governance structure for the proposed CE FI shall be based on the guidance contained in the Handbook on JEREMIE Holding Fund Operational Procedures. The Holding Fund undertakes operational aspects of investment management, namely preparation and regular revision of the Investment Strategy, preparation of Terms of Reference identification, appraisal and selection of appropriate Fund Managers, negotiation of commercial terms of the Operational Agreements, management of the contributions from the Holding Fund to the FMs, reporting to the Investment Board and to the Managing Authority on the development of the Holding Fund.

The roles and responsibilities of the Investment Board and Holding Fund are set out in further detail in Appendix G.

The funding agreement shall contain specific provisions pertaining to the definition of the monitoring system in order to efficiently monitor the FI, facilitate reporting requirements and identify any improvement areas. This will explicitly include the conditions, including trigger points, under which a revision or an update of the ex-ante assessment is needed.

10. Non-financial outcomes

CE businesses, as defined for this project, fall under TO6 at the European level, and investment priority '6f' at the England Operational Programme level. This relates to investment in the uptake of innovative technologies and resource efficiency measures to increase environmental protection, resilience and performance of businesses and communities. Indicators associated with TO3 should also be considered, as the fund will be primarily focused on SME support.

The four indicators linked to IP6f are set out below:

- Natural resource productivity of enterprises supported based on raw material consumption of construction and non-construction materials, using a GDP index;
- C1: Number of enterprises receiving support;
- C5: Number of new enterprises supported; and
- C29: Number of enterprises supported to introduce new to the firm products

In the absence of pipeline data or information from comparable organisations/funds, the analysis on targets levels for these indicators draws on (a) investor and investee interviews conducted as part of this project, and (b) discussions with Subject Matter Experts from PwC and the Steering Group.

Of these four indicators, the first appears to be less applicable to a FI targeted at SME businesses in the circular economy. The indicator measures a reduction in input materials due to increased productivity within an organisation. While this may be an appropriate measure for established businesses, it appears less suited to SMEs. A large proportion of the CE SMEs interviewed for this study act as enablers, typically taking discarded /waste materials from consumers and/or businesses, extending their product life in different forms and selling or leasing the end products to other consumers and businesses. This results in improved resource productivity within the geographic area of their operations and the benefit is dispersed across a number of organisations. As such business models become more prevalent across the Greater London region, it will become possible to measure their impact through aggregate GDP measures; however within the investment period of this FI it would likely require a disproportionate amount of time and effort to attempt to measure this due to the unavailability of data.

Assessing targets for each of the three remaining indicators:

- **Number of enterprises receiving support (C1)**: Based on a ticket size of £150,000 - £300,000, a £14m FI could fund a maximum of 93 SMEs. However, this would imply c.31 investments a year, which appears to be a high figure given the amount of pipeline development work required to find appropriate investment opportunities. As a comparator, the £60m LGF allocation was invested in 18 projects, though these had a significantly higher ticket size due to the nature of the capital infrastructure it was funding. The LCIF is seeking to invest £23m in 156 companies. In this context, a figure of c.50-70 enterprises supported appears achievable.
- **Number of new enterprises supported (C5):** As per the Output Indicator Definitions Guidance for the European Regional Development Fund (2014-2020)[40] published in September 2015 this indicator measures new business activity where a new business is one which
    a) is not trading and has been registered at Companies House for less than 12 month before assistance is provided; or

[40] Source: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/506532/ESIF-GN-1-002_ERDF_Output_Indicators_Definition_Guidance_v1.pdf

b) A business locating in the Programme area for the first time, to start trading.

On (a), the investment strategy allows investment in early stage businesses with trading history of up to five years, which includes start-up businesses with a trading history of less than a year. However, these will likely only make up a small proportion of total investments. On (b), only one of the 12 SMEs interviewed (8%) in our sample – a Dutch firm with operations in London – could potentially qualify under this indicator. Hence setting a target at c. 5%-10% of C1, or three to seven new enterprises supported appears reasonable.

- **Number of enterprises supported to introduce new to the firm products (C29):** As per the Guidance above this indicator measures if an enterprise is supported to develop a "new to the firm" product, i.e., if the enterprise did not produce a product with the same functionality or the production technology is fundamentally different from the technology of already produced products. It includes process innovation as long as the process contributes to the development of the product.

    a) Products can be tangible or intangible (including services);

    b) Projects without the aim of actually developing a product are excluded;

    c) If an enterprise introduces several products or receives support for several operations, it is still counted as one enterprise. In case of cooperation operations, the indicator measures all participating enterprises to which the product is new;

    d) Supported projects that aimed to introduce new to the firm products, but did not succeed are still counted.

  However, as most investees for the CE fund will be growth stage companies, they will likely be scaling up existing innovations in most cases rather than focussing on creating fundamentally different products. Hence it appears to be inappropriate to set a target for this indicator.

In addition to the generic measures above, the CE FI may also seek to monitor information on CE specific impacts. Based on the experience of other organisations, the two key non-financial metrics in this regard are (a) waste diverted from landfill and (b) carbon saving. These are standardised and verifiable measures that CE businesses typically monitor and report. They may be used as one of the inputs into the decision making when considering investment opportunities and thereafter reported regularly over time; however it is important to note that CE companies in different sectors of the economy are likely to have significantly differential impacts.

The output should include provisions for the update and review of the feasibility study to allow for requisite changes.

11. Fund Design: Key Findings

Pipeline: The analysis in Section 5 suggests there is sufficient demand for a new FI based on the CE pipeline identified:

- There is an indicative pipeline of investment need of £11.1m - £21m from 5 of the 12 SMEs interviewed. However, these figures disproportionately reflect one atypical entity;
- CE SMEs interviewed broadly cited a need for early stage equity investment to support resource expenditure. This also is a recognised gap per the funding supply analysis. For the 5 SMEs with identified future funding needs this amounts to a gap of £3.1m-£6m; and
- There are 840,000 SME businesses in London, and with sufficient branding and marketing activities undertaken with partner organisations, a robust pipeline of CE investments should be achievable. Extrapolation using 2015 Social Enterprise data as a proxy indicates that the potential funding gap may be in an indicative range from £16m - £71m.

Funding Allocation: LWARB and ERDF have currently allocated £14m for a new CE FI. However, there is potential to combine this with a wider pool of capital through structural alignment with the c. £100m London SME fund.

Investment Strategy: Based on the analysis conducted for this report, the key features of its investment strategy should include:

- Sector focus: Circular economy businesses across all sectors of the economy whose business models exhibit the five defined characteristics: 1) Renewable inputs; 2) Recover value; 3) Prolong product life; 4) Products as services; and Sharing economy;
- Investment products: Primarily Series A equity finance, for flexible use including resource expenditure with ticket sizes of up to £300,000 per investee. However, the fund should retain flexibility to provide follow-on finance (Series B/C) over time; and
- Investment recipients: Early stage SMEs, defined as companies with a trading history of less than 5 years that meet the EC's criteria for classification as SME.

State aid: GLA does not anticipate seeking a State Aid notification for the proposed CE FI as it will make investments in accordance with the Market Economy Investor Principles, or the GBER.

Fund Design: The design of the CE FI should be considered in conjunction with the development of the London SME Fund. As agreed by the Steering Group on 6 October 2016, any of the following three options to establish the CE FI are potentially viable:

#	Option	Description
1.	**As a standalone fund**	As a stand-alone fund with a dedicated external FM to consider and process applications for funding, make investment decisions and undertake ongoing reporting and monitoring.
2.	**As a sub-fund of the London SME Fund**	As one of multiple sub-funds within the London SME Fund with an external FM. The external FM could be procured to undertake more than one of the sub-fund mandates (including for the CE FI), but the funds themselves would be separated legally and from a branding/market perspective.
3.	**As a CE branded instrument within a sub-fund of the London SME Fund**	The CE allocation is made into a yet-to-be procured sub-fund of the London SME Fund, whereby it is ring-fenced for investing only in projects that align with the CE FI investment strategy.

It is recommended that EIB and GLA test this proposition with CLG for acceptability and seek legal advice on structuring when more details are known.

Non-Financial Outcomes: CE businesses fall under TO6 at the European level, and investment priority '6f' at the England Operational Programme level. Three of

the four output indicators for IP 6f appear applicable. These three also apply to TO3 output indicators. In addition, (a) waste diverted from landfill and (b) carbon saving are two other non-financial outcomes typically monitored and reported in the circular economy space.

Future updates to the Ex Ante Assessment: While some further work is required on fund design, it is not expected to be necessary to update the Ex Ante assessment prior to establishing the fund as all three options are considered feasible by the SG. Further updates may be considered if the fund wishes to further develop its activities, to reflect a change in market conditions for example, in the future. This and any other relevant trigger points shall be set out in the ongoing monitoring and reporting provisions agreed in the funding agreement.

Appendices

Appendix A – Terms of reference

Stage one – Kick-off meeting

- A meeting will be organised during the week of the study to establish the Steering Committee (SC). At this occasion, the EIB, together with their consultant (if applicable) will provide a presentation of the objectives of the study, assigned tasks, the team involved, the methodology proposed and a work schedule.

Stage two – Market Assessment

- Task **2.1: Evidence the strategic case for a UDF in support of the Circular Economy:** through an assessment of national, sub-regional, city policy objectives that support the LGF in targeting investment towards the Circular Economy.
- **Task 2.2: Analysis of market demand:**
  - Analysis of the scale of market demand;
  - Analysis of sub-optimal investment situations/market failures relevant to the sector;
  - Identification of the potential project pipeline in the sector in the short, mid and long term (2014-2020) (i.e. an assessment of indicative timescales for the financing needed for potential projects);
  - Analysis of funding requirements of potential funding recipients.
- **Task 2.3: Identification of funding market failures and investment gaps:** an assessment of the availability, consistency and complementarity of the LGFs proposal to invest in the Circular Economy with other funding products and programs targeting the sector.
- **Task 2.4: Establish the scale and focus of FI support for the circular economy:** an assessment of the potential funding gap(s) (scale and form), based on market demand and funding market failures and investment gaps identified.
- **Task 2.5: Assessment of additional public and private resources to be potentially raised by the FIs:** this will be based on Task 2.4 vis-à-vis the initial £14m earmarked for the Circular Economy, recycling of 2007 – 2014 returns to the LGF, potential EIB and other third party investment. Further potential additional allocation from the 2014-2020 Programme will also be considered.
- **Task 2.6: Assessment of the value added of the FIs in consistence with the existing aid and state aid:** an initial assessment of value added of a Circular Economy UDF in meeting the strategic aim of the 2014 – 2020 London ERDF programme and wider regional policy objectives; highlighting lessons learnt and good practice to inform the programme.

Stage three – Delivery and Management

- **Task 3.1: Proposed investment strategy:** conclusions will be drawn on the basis of the work carried out in Task 2 and a high level investment strategy developed that sets out:
  - A description of the financing products needed to address the identified demand-led market failure (loan, equity, guarantee, grants and technical assistance);
  - Circular Economy sub-sectors they will target;
  - State aid considerations associated with the form and nature of funding provided including the possible need for preferential remuneration of investors operating under the market economy investor principle if required to address market failure.

- **Task 3.2: Review of the lessons learnt from the past or from similar existing funds:** which are pertinent to the future design and development of the UDF and any implications to the structure and governance of the LGF.
- **Task 3.3: UDF design:** Options analysis and recommended option of how these financing products could be optimally delivered through an existing or new LGF UDF. This will include an assessment of the management, governance and delivery options for the funds, including the role of FM(s), likely FMs and their remuneration requirements. This will consider the lifespan of the existing UDFs and their ability to access recycled capital from the existing programming period and the possible timescale for implementation.
- **Task 3.4: UDF outputs and outcomes:** an estimation of expected outputs and outcomes at the UDF level (financial return, leverage and non-financial indicators according to initial targets and any other need identified through the market assessment). This will include provisions for the update and review of the feasibility study to allow for any changes that are deemed necessary.

Appendix B – Summary of meetings

Stakeholder Engagement	Organisation
Funding Demand	
	Elvis & Kresse
	Globechain
	Snact
	Winnow
	Knowaste
	Premier Sustain
	West Sussex New Life Paint
	Community repaint
	PlanZheros*
	Hubbub*
	Gumdrop
	Dutch aWEARness
	Kingfisher
	Jaguar Land Rover (JLR)
	Puma

Stakeholder Engagement	Organisation
Funding Supply	
	Foresight
	Funding London
	Circularity Capital
	Amber Infrastructure
	InnoFin Advisory
Other	
	System IQ
	Zero Waste Scotland

Appendix C – Documents received

	Document Name	Organisation
1.	Growth Within: A Circular Economy Vision For a Competitive Europe	Ellen MacArthur Foundation
2.	Assessment of access-to-finance conditions for projects supporting Circular Economy	InnovFin Advisory/EIB Advisory Services
3.	British Business Bank "Growth Loans" Presentation	British Business Bank
4.	Towards a circular economy – Context and Opportunities	London Waste and Recycling Board
5.	Circular Cities & Government Conference 2016 Slides	Greater London Authority
6.	Ex-ante Assessment Methodology for Financial Instruments in the 2014-2020 programming period	European Investment Bank
7.	Employment and the Circular Economy – Job creation in a more resource efficient Britain	WRAP
8.	Employment and the circular economy – Job creation through resource efficiency in London	London Sustainable Development Commission

Appendix D –Funding sources

Fund name	Date established	Manager(s)	Funding source	Fund size	Sectors targeted	Investment period timetable	Form of funding available	Ticket size	Other criteria
The London Green Fund	2009	EIB	London ERDF programme GLA LWARB	€120m	Three Urban Development Funds specialising in waste, energy efficiency and social housing projects	2009 – 2015	Equity/Debt/ Guarantees	See below	Investing in schemes to cut carbon emission
Foresight Environmental Fund (Waste UDF)	2011	Foresight (in part overseen by the London Green Fund)	EIB ERDF LWaRB LGF Institutional investors	£60m	Recycling/renewable energy projects	Forecast to be fully deployed shortly (Total capital mobilised £85m)	Equity	Average investment – £7m Average total project size – £12m	London area focus
LEEF (Energy efficiency UDF)	2011	Amber Green Consortium (Amber Infrastructure Limited, RBS, Arup)	ERDF LGF	£110m	LEEF will finance a broad range of Energy Conservation Measures (ECMs) that provide energy saving benefits, including boiler replacement, combined heat and power, insulation and ground source heat pumps	2011 – 2015	Debt	£1m – £20m	Projects should aim to have an • Energy Savings Ratio of at least 20% compared to conditions prior to investment; and • An annual carbon reduction of less than £5,000 per tonne of CO_2

Fund name	Date established	Manager(s)	Funding source	Fund size	Sectors targeted	Investment period timetable	Form of funding available	Ticket size	Other criteria
EIB Innofin Programme	2014	European Investment Bank	EIB EIF EC	€24bn	All eligible sectors under Horizon 2020 Aim to facilitate and accelerate access to finance for innovative businesses and other innovative entities in Europe	2014 – 2020	Debt/Equity/Guarantees either provided directly or via a financial intermediary, most usually a bank	Various	seven financial instruments 1 COSME Loan Guarantee 2 InnovFin SME Guarantee 3 InnovFin MidCap Growth 4 InnovFin MidCap Guarantee 5 InnovFin Large Projects 6 InnovFin Energy Demo Projects 7 EFSI
London Waste and Recycling Board	2015 – 2020	London Waste and Recycling Board	DEFRA Private investment	£20m	Suitable projects could include initiatives such as recycle sorting and separation, secondary material reprocessing or re-manufacturing, anaerobic digestion and composting facilities or thermal/chemical conversion technologies Now looking into scaling and transition investment opportunities within the circular economy	Ongoing	Debt/Equity	Various	Primary focus is on SMEs developing waste treatment infrastructure projects in London. Support is offered on commercial terms to medium and high risk projects which are not able to secure funding from the private sector alone

Fund name	*Date established*	*Manager(s)*	*Funding source*	*Fund size*	*Sectors targeted*	*Investment period timetable*	*Form of funding available*	*Ticket size*	*Other criteria*
LWARB Circular Economy Incubator	Expected 2017	LWARB	ERDF	-	SME circular pipeline in London	Ongoing	Technical Assistance	N/A	Scope excludes start-ups due to lack of job creation, a key outcome measure of ERDF funding criteria
Green Infrastruct-ure Fund	2012	Foresight	UK Green Investments (GIB)	Initial tranche £50m extended to £68m in 2015	Renewable energy, biogas and related waste infrastructure projects	Fully deployed (Total capital mobilised £380m)	Equity	Average investment – £9m Average total project size – £47m	UK focus
Recycling & Waste (RAW) Fund	2015	Foresight	GIB	£50m (further £50m to be raised privately)	Waste infrastructure		Equity	Project size < £30m	UK focus Smaller scale recycling and waste projects
The London Co-Invest-ment Fund	2015	Funding London Capital Enterprise	Mayor of London's Growing Places Fund (£25m) Private partners	£46m raised to date	Digital/Science/Technology Having launched its first fund in October 2004 Funding London has supported 560 small and early stage businesses by investing via three equity and six loan funds. Each fund targets a section of London's early stage and small business community where funding gaps exist	Ongoing	Equity investments	Seed rounds between £250,000-£1m	London area focus SME focus Commitment to creating and protecting jobs

Fund name	Date established	Manager(s)	Funding source	Fund size	Sectors targeted	Investment period timetable	Form of funding available	Ticket size	Other criteria
Angel CoFund	2011	Angel CoFund	British Business Bank Syndicates of business angels	£100m	Across all sectors Since launch the fund has invested and committed in excess of £24M, alongside a further £95M from business angels and other investors, providing support for 54 companies. The fund retains 100% follow-on capacity	Ongoing	Equity/quasi equity investments (subject to an upper limit of 49% of an investment round and 30% of the equity in a business)	£100,000 – £1m	Investee companies must fall within the European Commission SME definition (headcount not exceeding 250, turnover not exceeding €50M and balance sheet assets not exceeding €43M). Critical criterion in securing investment from the CoFund is the presence of a strong group or syndicate of private angel investors who are looking to make a good commercial investment
Help to grow – Growth loans	2016	British Business Bank	EIF Lloyds Banking Group	Initial tranche – £30m (to support c£200m of growth loans in its first two years)	Across all sectors (expected to benefit most those with high levels of innovation and growth ambition – such as manufacturing, creative industries and the technology sector)	Ongoing	Debt	Loans of up to £2m	High growth stage post start up part of company lifecycle

Fund name	Date established	Manager(s)	Funding source	Fund size	Sectors targeted	Investment period timetable	Form of funding available	Ticket size	Other criteria
Start-up loans	2012	Administered by the British Business Bank through the Start Up Loans Company	Department for Business, Innovation and Skills	£310m	Across all sectors	Ongoing	Debt	Loans of up to £25,000	UK Focus Pre start-up/early stage company (<two years old)
Circularity Capital (PE)	2014	Circularity Capital	Private investors	£50m	Circular sector Areas include maintenance, repair, refurbishment and remanufacturing Hire or leasing based businesses, including those focusing on product as a service or servitisation based business models Businesses with software, technology or processes that drive asset productivity, e.g. supply chain management solutions, reverse logistics, asset tracking, predictive maintenance	Fund yet to launch (Expected late 2016/early 2017) 10 year investment period from launch	Equity	£1m – £5m	1 Circular Economy Transformers: SMEs that have started moving from linear to circular economic practices and possess the potential to significantly accelerate this transition 2 Circular Economy Enablers: Businesses with a product, service, solution or innovation that will support the acceleration of the circular economy in other companies and organisations. Integrated approach to measuring and reporting ESG factors and use this information to support investee company growth

Fund name	*Date established*	*Manager(s)*	*Funding source*	*Fund size*	*Sectors targeted*	*Investment period timetable*	*Form of funding available*	*Ticket size*	*Other criteria*
Convent Capital (PE)	2011	Convent Capital	Private investors Family offices Institutional investors	-	Circular sector Focus on sustainable value creation, sectors invested in include waste, consumer products, public space design	Ongoing	Equity	Business value of €10m – €50m	Medium sized companies Head office function in the Netherlands Strong market position and proven track record Majority interest Investment due diligence extended with a so-called Circularity Scan (making the ESG impact of a company objectively measurable) and the HR Scan (determining the vitality in the area of human resources)
Triodos Sustainable Pioneer Fund	2010	Triodos	Private investors	€160m	Sustainable energy, environmental technology and water, medical technology and corporate social responsibility	Ongoing	Public equity	-	Listed equity Small and medium sized innovators in sustainability
Triodos Sustainable Equity Fund	2010	Triodos	Private investors	€500m	Invests in equities issued by companies with strong social and environmental performance across a range of sectors	Ongoing	Public equity	-	Listed equity 50% of revenues from sustainable products or services

Appendix E –Interview summary for SMEs

Company	Focus area	Description	CE?	Funding sources	Funding need	Type of expenditure	Challenges experienced
SME1	Textiles	Reclaim materials designated for landfill, such as decommissioned firehouse and turn them into a range of luxury products	Yes	Own resources and used government tax credit scheme.	Require c. £250k p.a. going forward, £130k p.a. for experienced Chief Marketing Officer, with a team of three to four staff. In addition, £200k-300k p.a. for annual sales and marketing budget	Resource	"We were in contact with various alternative investors/lenders (Bridges, Triodos, Clearly So, Big Issue Invest etc.) but these did not meet their needs as they were looking for investors with specific experience in the luxury business. E&K are at the top end for social capital providers but too low for luxury VC players."
SME2	Built environment	Online platform connecting businesses, charities and people to reuse unwanted items	Yes	Own resources	£200k – £250k	Resource	"I haven't raised money as I can't get it – my requirement is too big for angels, too small for VC"
SME3	Food	Makes healthy snacks form surplus produce	Partial	Own resources/Crowd funding in first year/Angel investment	£150k – £200k	Resource	"Investors say you are not established enough. Come back later"
SME4	Food	Use technology to reduce food waste in the modern kitchen	Partial	Since launch have had a £600,000 seed round/Raised their series A through impact investment VC Mustard Seed and D-Ax (c£2.5m)	Envisage a B round going to market Q1/Q2 of 2017, raising a healthy multiple of series A funding	Resource	"Introducing new technology into a traditional environment solving a problem not many know exists has been difficult – Also establishing an initial evidence base to prove value of concept"
SME5	Textiles	Recycles used hygiene products to reclaim plastic and fibres	Yes	Self-funding at development stage/debt at later stage	£8m – £15m	Capital	"You need initial funding to prove the concept, but also keep the business running"

Company	Focus area	Description	CE?	Funding sources	Funding need	Type of expenditure	Challenges experienced
SME6	Built environment	Recycling and remanufacturing office furniture	Yes	"£50,000 capital grant from WRAP/Self-funded from parent company (c£1m)	Will need additional funds to invest in R&D, technology, equipment and staff as new service initiatives are introduced in 2017	Both	"Having to create new business models without reference to successful models"
SME7	Built environment	Recycling of paint	N/A	Own resources initially/Angel investment/Later partnered with Dulux	Currently raising funds through licensing deals. Have agreed partnerships with Akzo Noble, Veolia and Suez	Resource	"The market is able to lend for capital expenditure but working capital is much harder to source. There are no grants for this. Also It takes time for CE products to gain public acceptability, while consumers are enthusiastic about the idea, they have concerns about quality"
SME8	Built environment	Paint reuse/donation network (Dulux partner)	N/A	Investment from sponsor (Dulux)/Angel investment/Ethical investment	"£20,000 per remanufacturing process. Each of the 75 schemes also requires premises – some schemes lease these; others buy these or space is provided by the council or others	Capital	"Public sector austerity – loss of funding streams such as recycling credits, placement grants"
SME9	Food	Donate food waste from hospitality sector	Yes	Grant funding/Pro bono support	Operating budget of £78,000 for the 12 months to June 2017 to pay for two members of staff, all of which is currently secured	Resource	"Resources, both human and financial. These are probably typical of other CE charities which begin as a grassroots organisation and transition to a more structured model like a registered charity or social enterprise"
SME10	Food	Food waste avoidance campaigns (in conjunction with Unilever)	Yes	£50,000 start-up loan funding from CAF Venturesome	Likely to receive a further £150,000 investment to take our ideas to scale	Resource	"Finding investors who place environmental/societal impact as the focal point for their investment and are willing to

Company	Focus area	Description	CE?	Funding sources	Funding need	Type of expenditure	Challenges experienced
					from Esmee Fairbairn and are seeking a further £100,000 from CAF Venturesome to increase our on-line reach.		take a high level of financial risk at a low level of return in order to deliver this impact"
SME11	Food	Recycles chewing gum into new polymers	Yes	Own resources, Government grant	N/A	Capital	"Due to the niche sector and nature of the business, funding was hard to come by"
SME12	Textiles	Chain management for the textile industry, developing work wear and corporate wear that is designed to be reused.	Yes	Raised EUR 3.8m over three years from a combination of EU and investor funding, as well as recycled revenues.	No.		Conservative investors: DA discussed a leasing pilot with GIA. This would involve a lease contract between them for 500 garments for EUR50k, with GIA paying a monthly amount plus interest at 4% over a three year period. They approached a number of banks (Rabo bank, ABN Amro, EIB etc.) for debt for production but they were not interested despite it being a low risk proposition due to GIA's scale and current interest rates being c.1% compared to the 4% DA were willing to pay.

Appendix F –Interview summary for established companies

Company	Focus area	Description	CE?	Funding sources	Funding need	Type of expenditure	Challenges experienced
E1	Built environment	Major home improvement retailer with over 900 stores in eight countries in Europe and Asia. Their CE campaign is titled Net Positive Vision and includes specific targets (e.g., to create 10 'closed loop' supply chains by 2020).	No	Internal resources	N/A	Both	"Products need to be win-win for consumers (quality), the environment (reduced emissions) and the business (cost). The CE drill made from deconstructed metal failed as it was no better for the consumer, a lot harder to make and more expensive. There was environmental benefit but it was very hard to realise"
E2	Other (Automotive)	The UK's largest automotive manufacturing business. Their CE related R&D includes the two REALCAR projects which aim to increase the amount of recycled aluminium used in vehicle manufacture to 75%, lowering their overall carbon footprint.	No	Real Car 1: £2m grant funding between 2008-2011 from DTI (pre-cursor to Innovate UK) Real Car 2: Received £1m from Innovate UK	Now working on successor project to REALCAR, focusing on end-of-life, looking to extract high quality materials. The three year programme is likely to require c.£2m	Both	"CE is difficult as you are trying to make changes to mature infrastructure. It takes a long time to go from prototype to production at scale and it is difficult to source real data step-by-step, particularly at the supply chain level. No single automotive manufacturer alone can bank-roll the whole SME supply chain to achieve CE, so you need collaboration across the industry "
E3	Textiles	Major footwear, apparel and accessories maker with presence in over 120 countries. Early mover in CE, with four collections made from recycled materials (e.g. InCycle footwear). However, has moved away from this in the last three years following a change in management due to a sense that the current technologies were not price competitive. They are now focussing on chemical recycling of polyester (instead of full range of materials).	No	Internal resources. CE was a priority for previous CEO	N/A	Resource	"While CE economics works for certain materials, it does not work on a large scale." "CE collections were priced on par with conventional products but had a mixed response from consumers. The media and individual consumers responded positively but sales were below expectations. The feedback from staff was that consumers had quality concerns ('Will the shoe last as long? Will it bio-degrade on my feet?')"

Appendix G – Governance Structure

- The governance structure for the proposed CE FI is based on the guidance contained in the Handbook on JEREMIE Holding Fund Operational Procedures. As per this, the Holding Fund undertakes operational aspects of investment management, whereas ultimate responsibility for supervision is borne by the Investment Board.

The Investment Board will be responsible for the monitoring and approval of the operational aspects of the Holding Fund. It shall have the following competences:

1. Deliberate upon and approve the Investment Strategy and/or recommend any amendments thereto;
2. Deliberate upon and approve individual terms and conditions of a proposed financial engineering instrument before the Call for Expressions of Interest (EoI) is launched;
3. Adopt those selection criteria that will be used for the purpose of assessing the FIs that participate in a call and evaluating their proposals;
4. Receive the Annual Progress Report (and any other reporting as stipulated in the agreement between the mandating authority and the Holding Fund and deliberate on the progress of the initiative; and
5. Approve the budget of non-eligible costs.

- In addition to the above-mentioned competences, the IB will also be responsible for regular monitoring of the operational aspects of the initiative as performed by the Holding Fund and as undertaken by the FIs.

The Holding Fund will be responsible for the operational aspects of the initiative and to this end will undertake to:

6. Take all necessary steps including further primary and secondary research so as to revisit and update the initial Investment Strategy on a periodic and timely fashion;
7. In accordance with the updated Investment Strategy, formulate the Terms of Reference (including a section presenting an initial non-exhaustive assessment of any State aid impact), i.e., the terms and conditions that form the framework of the business proposals to be received in response to a Call for EoI for a specific instrument;
8. Assess the FIs that participate in a Call for EoI and evaluate their proposals in response to that call; ultimately, identify the most suitable FI(s) and the proposal that is most suitable to the terms and objectives of the Financial Instrument to be launched;
9. Enter into negotiation concerning the commercial terms of the instrument with the selected FI(s), ensure that the agreement provides for the optimal deployment of the instrument in accordance with the initiative objectives but in line with best market practice;
10. Formulate and follow a programme of monitoring visits, checks and activities as well as establishing a related regular reporting matrix in order to identify or prevent any divergence from the objectives and the terms as set in the agreement with the FI;
11. Liaise with the Managing Authority (MA), where appropriate and requested, so as to provide reasonable assistance in collecting relevant information necessary in order to allow the MA to ensure compliance with applicable EU rules on State aid;
12. Identify possible private contributors either at the level of the Holding Fund or the underlying instruments;
13. Submission to the IB all necessary documentation in order to enable them to discharge their duties in a timely and professional fashion. The Investment Committee will be entirely responsible for the approval of the operational aspects of the Holding Fund before submission to the HoJ.

Appendix H – Ex Ante Checklist

Requirements	*CPR Reference*	*Ex Ante Reference*
Identification of market problems existing in the country or region in which the FI is to be established.	Art. 37 (2) (a)	Section 5: Market gaps and failures
Analysis of the gap between supply and demand of financing and the identification of suboptimal investment situation.	Art. 37 (2) (a)	Section 5: Market gaps and failures
Quantification of the investment (to the extent possible).	Art. 37 (2) (a)	Section 8: CE Investment strategy
Identification of the quantitative and qualitative dimensions of the value added of the envisaged FI.	Art. 37 (2) (b)	Section 9: CE Fund design
Comparison to the added value of alternative approaches.	Art. 37 (2) (b)	Section 9: CE Fund design
Consistency of the envisaged FI with other forms of public intervention.	Art. 37 (2) (b)	Section 9: CE Fund design
State aid implications of the envisaged FI.	Art. 37 (2) (b)	Section 8: CE Investment strategy
Identification of additional public and private resources to be potentially raised by the envisaged FI and assessment of indicative timing of national co-financing and of additionality contributions (mainly private).	Art. 37 (2) (c)	Section 8: CE Investment strategy & Section 9: CE Fund design
Estimation of the leverage of the envisaged FI.	Art. 37 (2) (c)	Section 8: CE Investment strategy
Assessment of the need for, and level of, preferential remuneration based on experience in relevant markets.	Art. 37 (2) (c)	n/a
Collation of relevant available information on past experiences, particularly those that have been set up in the same country or region as the envisaged FI.	Art. 37 (2) (d)	Section 7: Key findings from existing relevant UK FEIs
Identification of main success factors and/or pitfalls of these past experiences.	Art. 37 (2) (d)	Section 7: Key findings from existing relevant UK FEIs
Using the collected information to enhance the performance of the envisaged FI (e.g. risk mitigation).	Art. 37 (2) (d)	Section 7: Key findings from existing relevant UK FEIs
Definition of the level of detail for the proposed investment strategy (maintaining a certain degree of flexibility).	Art. 37 (2) (e)	Section 8: CE investment strategy
Definition of the scale and focus of the FI in line with the results of the market assessments and value added assessment.	Art. 37 (2) (e)	Section 8: CE investment strategy

Requirements	*CPR Reference*	*Ex Ante Reference*
Selection of the financial product to be offered and the target final recipients.	Art. 37 (2) (e)	Section 8: CE investment strategy
Definition of the governance structure of the FI.	Art. 37 (2) (e)	Section 9: CE Fund design
Selection of the most appropriate implementation arrangement and the envisaged combination of grant support.	Art. 37 (2) (e)	Section 9: CE Fund design
Set up and quantification of the expected results of the envisaged FI by means of output indicators, result indicators and FI-performance.	Art. 37 (2) (f)	Section 10: Non-financial outcomes
Specification of how the envisaged FI will contribute to deliver the desired strategic objectives.	Art. 37 (2) (f)	Section 4: Supply Analysis (for background), Section 8: CE investment strategy & Section 10: Non-financial Outcomes
Definition of the monitoring system in order to efficiently monitor the FI, facilitate reporting requirements and identify any improvement areas.	Art. 37 (2) (f)	Section 9: CE Fund design
Definition of the conditions and/or the timing in which a revision or an update of the ex-ante assessment is needed.	Art. 37 (2) (g)	Section 8: CE investment strategy & Section 9: CE Fund design
Ensure that this flexibility, and trigger points, is reflected in the monitoring and reporting provisions.	Art. 37 (2) (g)	Section 9: CE Fund design
The ex-ante assessment is submitted to the monitoring committee for information purposes and in accordance with Fund-specific rules.	Art. 37 (3)	N/A
Publication of summary findings and conclusion of the ex-ante assessment within three months of their date of finalisation.	Art. 37 (3)	N/A

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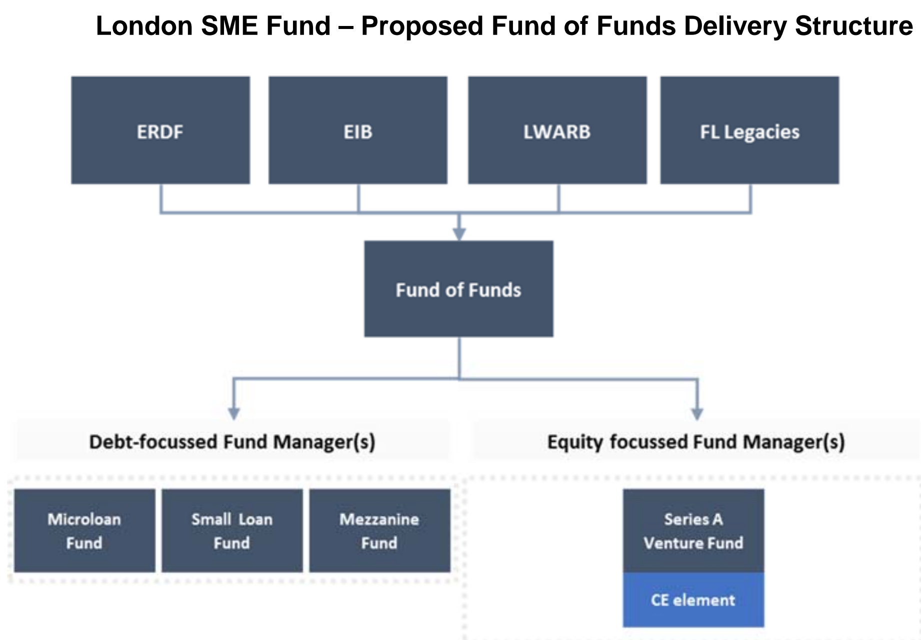
Ex ante - Supplementary Work for London SME Fund

1. This document sets out the revised delivery model for the London SME Fund, called Greater London Investment Fund (GLIF), taking account of the review carried out to ensure the funding model was satisfactory to the European Investment Bank(EIB), which is contributing half of the capital. The main recommendations from the 'SME Block 2 Report – SME Investment Strategy and Delivery' and the Circular Economy (CE) Report have not changed, with exception of the number of sub-funds. This document also outlines the revised output resulting from the reduce number of sub-funds.

2. The SME Block 2 and the CE Reports proposed a fund of funds model for GLIF, as shown in the diagram below. The model originally proposed was for the establishment of four sub-funds; three providing debt finance and one providing equity finance, with £14m ring fenced for CE businesses.

London SME Fund – Proposed Fund of Funds Delivery Structure



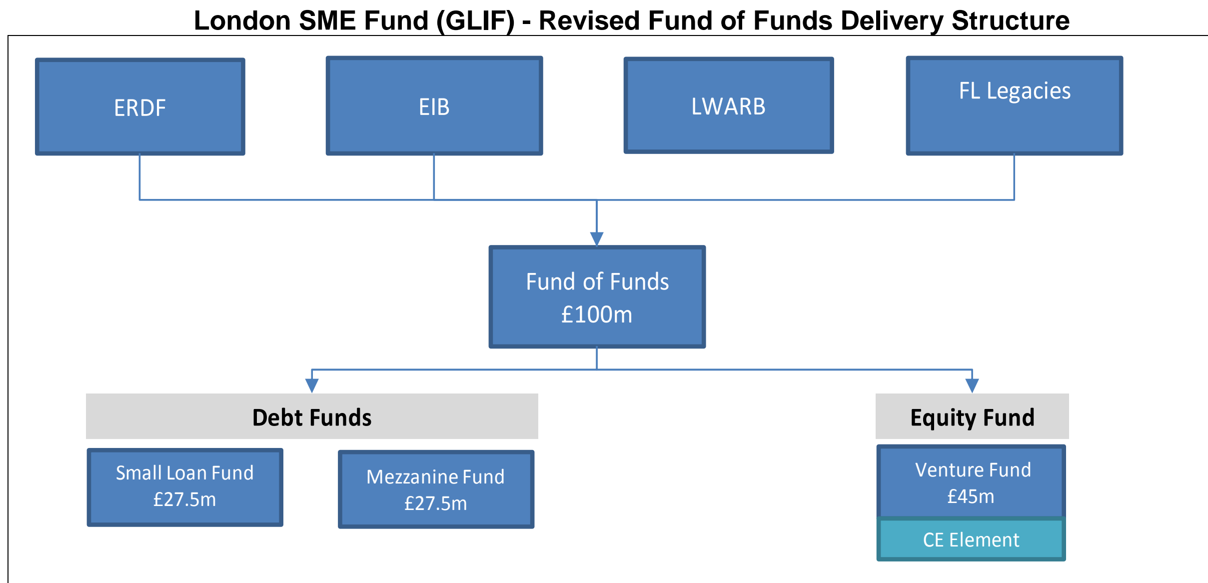
3. It was agreed that Funding London (a wholly owned subsidiary of GLA), which previously acted as fund of funds during the 2007-13 period, would perform the same function during the 2014-20 period. The GLA, as an intermediate Body, therefore contracted directly with Funding London, through an 'in-house entity'[1] award, to set up and manage GLIF. Funding London carried out a procurement exercise to select the sub-fund managers.

4. An independent consultant was used to prepare the funding model for GLIF, taking account the recommendations of the *ex ante* reports. Following a detailed review to ensure GLIF's funding model was acceptable to EIB, it was decided that the micro loan fund would not be established. This was due mainly to its disproportionately higher operational costs

[1] An Entities owned and controlled by a contracting authority, as set out in Directive 2014/24/EU.

compared to the other funds and its likely negative impact on investment returns, given its risk profile. These considerations were important for the viability of GLIF, given that its funding model was predicated on management costs and fees being paid from investment returns. The revised delivery structure is shown below; it is still a fund of funds model but with three sub-funds.

London SME Fund (GLIF) - Revised Fund of Funds Delivery Structure



5. The features of the three remaining sub-funds remain the same as per the recommendations of the SME Block 2 and CE Reports, except that the size of both debt funds has increased by £2.5m to £27.5m – see table below. As a result, the overall size of GLIF remains at £100m.

Proposed Financial Instruments	Size	Investment Range	Brief Description
Venture and Circular Economy Fund (pre-series A to series A)	£45m (£14m ringfenced for Circular Economy)	£100K to £2m	This fund will focus on the sectors of strategic importance to the London economy; however specific support will be for early stage SMEs in the circular economy
Debt/Loan Fund (small loans focus)	£27.5m	£100K to £500K	This fund will provide loans to enterprises seeking debt facilities to expand their business.
Mezzanine Fund (larger loans focus)	£27.5m	£500K to £1m	This will provide loans to enterprises seeking debt facilities to expand their business with larger funding requirements.
Total across fund of funds	**£100m**		

Outputs

6. As a result of the change, the outputs targets have been revised as outlined in the table below.

Outputs	Targets
C1 - Number of enterprises receiving support	170
C3 - Number of enterprises receiving financial support other than grants	170
C5 - Number of new enterprises supported	21
C7 - Private investment matching public support to enterprises (non-grants)	£168.8m
C8 - Employment increase in supported enterprise	3,562

March 2019