BUILDING SMART CITIES TOGETHER

SHARING CITIES

Deliverable 7.8

"Funding London" Model

Partner: UrbanDNA

Ver 01h, 5th January 2017

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Summary

London has established a number of investment funds to support targeted SMEs that show high growth / scale-up potential. In support of the Mayor of London's five economic development priorities, an arms-length delivery vehicle 'Funding London' was created in 2004for the purpose of providing and administering venture capital and loan funds to London based SMEs which found traditional sources difficult to access.

The most recent fund deployed through this vehicle, the London Co-investment Fund, was launched in December 2014 to target investments in high growth SME's in London's strategic sectors of Science, Digital and Technology as defined in the London Plan.

Investment decisions are made in partnership with 10 co-investment partners that include a consortium of investors from the business angel and venture capital community and two of the leading crowd-funding platforms in the UK. The funding model was purposely designed in such a way that would minimise operational costs, maximise private investment and enable more efficient allocations of funding. To date £75m has been raised and it is expected that by the end of the lifetime of the fund, over 2600 jobs will be created, over 150 technology start-ups directly supported and over £130m GVA will be generated.

Sharing Cities offers the opportunity for the cities to exploit the Funding London model and implement a local similar fund. This report captures the Funding London experience, and outlines a framework by which leaders in these cities can engage to determine how best to move forward.

Funding London Model		**WP7 – D7.8**	
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CONTENTS

1 INTRODUCTION

This section provides an overview of the Sharing Cities programme; the Work Package on Business Models, Financing & Funding; and on this specific deliverable regarding creating a city SME fund.

1.1 INTENDED READERSHIP & PURPOSE

This deliverable is intended to inform political and city executive leaders initially in lead and fellow cities, and in time in scale-up cities.

Its purpose is to inform these cities of the approach taken by London to work with the financial market to set up a City-Hall-led SME/Scale-Up investment fund to support targeted economic development policies in the city, particularly in relations to SME activities in target sectors. And with that knowledge determine how best to galvanise Sharing Cities leaders to take steps to achieve the ambitions of raising quantum funds (the 'trigger €500m' goal) to support smart city developments and stimulate high-growth potential SMEs, that will deliver much-needed jobs.

1.2 THE SHARING CITIES PROGRAMME

This Section 1.2 contains standard text that appears consistently throughout ShC deliverables.

Figure 1 Sharing Cities Vision

The Sharing Cities vision is captured in figure 1. It drives what we do. Specific terms in the supporting text provide a clear direction regarding what we do to convert this to practical action, specifically:

"Underpinning this are shared solutions that apply a 'digital first' approach; are more common, integrated, open; and provide the 'building blocks' incorporating European and worldwide leading practices that can be deployed at scale, yet tailored to cities of different size and stage of development".

Sharing Cities is an EU Horizon 2020 Smart Cities and Communities Programme. The programme brings together 70 people, from 35 partner organisations and 6 countries to work across 8 highly connected work packages; which broadly focus on the themes of People, Place and Platform. Its vision is for a more agile and more collaborative smart cities market that dramatically increases the speed and scale at which we implement smart solutions across European cities, engaging society in new ways to cause them to play an active role in the transformation of their communities – delivering more vibrant, livable, economically active, and resource efficient cities.

Underpinning this are shared solutions that apply a 'digital first' approach; are more common, integrated, open; and provide the 'building blocks' incorporating European and worldwide leading practices that can be deployed at scale, yet tailored to cities of different size and stage of development.

There is one demonstrator are in each of the three lead cities of London, Lisbon, and Milan. The demonstrator areas will test the replicability of these physical, digital and human systems to deliver sustainable place and resource management opportunities.

1.3 BUSINESS MODELS & FINANCING WORK PACKAGE 7

This Section 1.3 contains standard text on WP7 that appears consistently in relevant ShC deliverables.

1.3.1 WP7 Objectives

The objectives the 'Business Models & Financing' WP7 are to:

1. **Develop a series of fundable business models** to ensure that the measures delivered across the demonstrators can become sustainable, financially viable and scalable propositions across the full range of European cities.
2. **Trigger €500M European Smart Cities Investment** to accelerate exploitation of common integrated smart city solutions.
3. **Establish Smart City Investment Funds** in 3 of the principal cities
4. **Boost scale-up businesses** to support the 'jobs and growth' agenda (locally)

WP7 addresses two principal themes:

Theme 1: Matching Measures to Cities

This seeks to understand cities and measures in order to maximise the speed and scale of adoption, and the value generated. To do so we:

- Profile cities to better understand their context & needs
- Characterise Measures and assess measure-specific needs
- Develop business models that enable adoption
- Perform matching (3+3+many)

Theme 2: Establish Funds

This seeks to: A). unblock investments of all forms, understand investor motives, de-risk investment, and deliver investable (bundles of) measures, and B). support SMEs and scale-up businesses in the principal cities by packaging and disseminating the Funding London model

- A: Design & tailor implementations in other SHAR cities
- Design & implement an EU-level fund
- B: Package "Funding London" (SME enablement) model
- City-level SME focused support

1.3.2 Relationship of WP7 to the Sharing Cities Vision and Goals

The Sharing Cities vision (figure 1) highlights a number of underpinning features (text shown in red in figure 2). WP7 seeks to support the vision by resolving a key market scale-up barrier – release of **money**!

Five of the '10 Audacious Goals' are relevant to WP7:

1. Aggregate Demand and achieve wide Scale Deployment of smart city solutions
   - *e.g. Engage 100 cities (2016), & 50% exploit our products*
2. Deliver Highly Relevant Common and Replicable Innovative Solutions
   - *e.g. deliver >10 repeatable solutions, & ~10 tools/frameworks*
3. Attract Quantum External Investment
   - *e.g. Trigger € 500 million external exploitation investment*
4. Make Acceleration in Uptake of Smart City Solutions Real
   - *e.g. Speed uptake and reduce implementation cycle times*

10. Strengthen Local Scale-Up Businesses in (at least) the 3 cities
    - *e.g. Create >100 new jobs in 3 districts in related sectors*

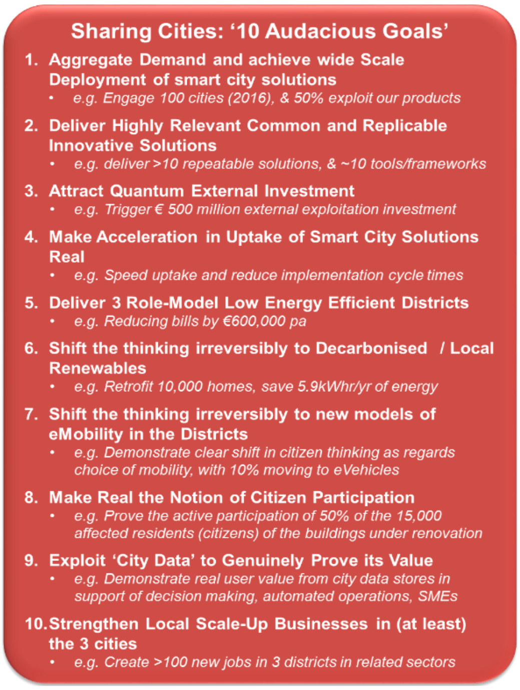

Figure 2 Sharing Cities "10 Audacious Goals"

1.4 Dependencies

The Business Model and Financing work package (WP7 BM&F) is significantly dependent on developments in other areas of the Sharing Cities programme; and on initiatives outside of Sharing Cities. Specifically, in the context of this deliverable, as shown in figure 3:

i. **Internal WPs**, notably WP3&4, develop the 'products & services' that the cities will procure and implement; and determine the specific sectors of activity in focus for this programme. These are important to all these cities, however it is recognized that activities in a wider set of sectors will be important also, and will undoubtedly be relevant in the context of economic development policy and plans within these cities. As such our purview also extends to these other sectors as it is the total perspective that will determine whether the cities wish to launch a 'Funding London' equivalent in their cities.

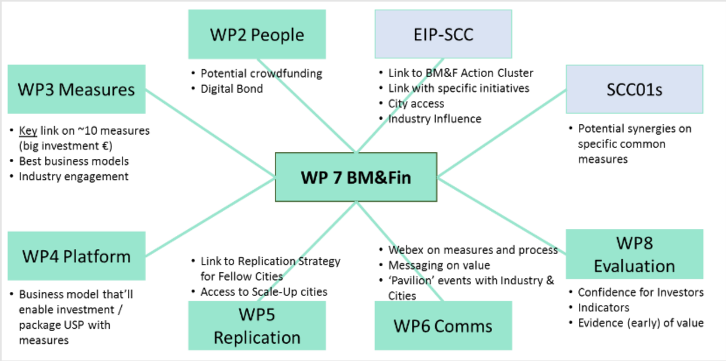

Figure 3 WP7 Inter-dependencies

ii. **External dependencies** are less relevant initially, and will grow over time. However, alignment and collaboration with the other SCC01s and the EIP-SCC will present opportunities for two-way learning. Also activities beyond each city – at regional and national levels – will be instrumental to city-specific plans.

1.5 This Deliverable: D7.8 – "Funding London" Model

It is the context of WP7 Theme 2 'Establish Funds' Theme 2, that this deliverable sits. More specifically, and as indicated in the logic diagram (figure 4), task T7.5 led by GLA:

- **Task 7.5 (this activity) captures the Funding London Model, as deliverable D7.8**
- Task 7.6 understands the economic development context within the 3+3 ShC cities (D7.9)
- Task 7.6 helps cities evaluate opportunities and plan actions to develop (or not) local funds
- Task 7.7 develops funds in the ShC cities
- Task 7.8 collaborates with EIP-SCC, SCC01s & larger institutional investors to create EU funds
- Task 7.9 is more city specific, addressing the SME/Scale-Up goals and targets in ShC cities

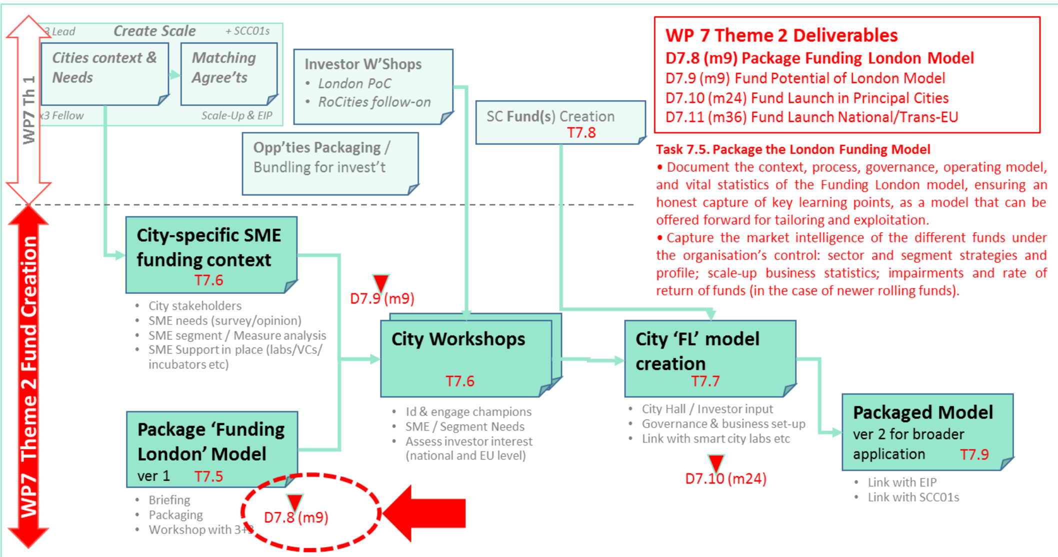

Figure 4 WP7 Theme 2 Logic (Task 7.5 & D7.8 detail)

2 Economic Development Context

This section summarises the economic development landscape for cities, of relevance internationally.

2.1 Market Evolution

Economic prosperity is arguably the most important of the three principal purposes of a city (the other two being *quality of life* for city residents; and *city attractiveness and brand*). It is economic activity that provides the fuel that feeds a strong sustainable future.

At a global level there is a tangible 'double shift of powers'; in that (i) the implications of globalization in all forms requires greater governance and influence by international bodies, and (ii) societal shifts accelerated by digitization puts more control in the hands of the individual. These two undeniable and opposite (though not contradictory) forces create tensions at all levels. Of note, the role of cities comes more into focus.

"The 21st century is the century of the city"
Denver Mayor

Cities in many European countries were considered 'the problem' 20 years ago; then became recognized as being an influencing factor in resolving challenges; now they are more seen to be at the heart of our future societal model.

Alas, capacity gaps, inherent complexity, and diversities between cities makes the process of improvement a fragmented and lengthy one. However we do not have the time available for us to allow traditional processes to persist. So fundamental transformation, enabled by the powers of digitization, is required.

"We need a new model of urbanism – the current one simply does not work"
Joan Clos, DG UN-Habitat, Dec 2012, London LSE event

Cities can play an important role in influencing the re-balancing of their local economies, between the big corporations and their SME community – both of which are vital. The former of which, given many exist in multiple cities, may not have a specific city's needs at the heart of their actions and are driven by shareholder requirements. However they bring the muscle and scale that are so essential to secure jobs. The latter, small and medium enterprises (SMEs) and scale-up businesses, are seen as a vital asset for cities. They are nimble, bring innovation, and will employ locally. Also, importantly, cities can influence their development. Though true, it is arguable whether this is done well in all cities. However all do see this as vital and seek to make improvements from whatever base they start from.

Given that economic prosperity is so important to a city's future; given that the vast majority of European society lives in cities; given that local economic development and local businesses are so vital, and given that digitization most certainly presents us with a substantial opportunity to speed transformation – the role of "City Hall" can be highly influential. City Hall sets policy, convenes, funds, and delivers services. All of these roles are instrumental to (local) businesses.

2.2 The Importance of the Small Business Community

Micro (<10 employees) and *Small & Medium Businesses* (1-49: small; and 50-249 employees: medium; and <€50 turnover) statistically represent the vast majority of enterprises (in Europe) by number – around 99%. They represent 2/3rds of total private sector employment, and over the past 5 years have created 85% of the new jobs[1]. As such this community plays a vital role in all European economies.

[1] https://ec.europa.eu/growth/smes_en

Scale-up businesses – typically at the latter stages of start-up activities (once the business model is more stable, and the challenge is that of growth) – are a particularly valuable opportunity for cities. Scale-ups frequently bring disproportionate value, they create local jobs, likely bring home revenues from overseas business, and are ideal candidates for cities to seek to retain.

Small businesses face multiple challenges as they progress through the various stages of their development (see figure 5). As a result, the failure rate of small businesses is typically high, notably in the first few years. Less, perhaps than the very high reported figures in some journals (around 80%). Indeed, recent Eurostat figures suggest survival rates for the first year are around 80%; and 50% survival to 5 years[2].

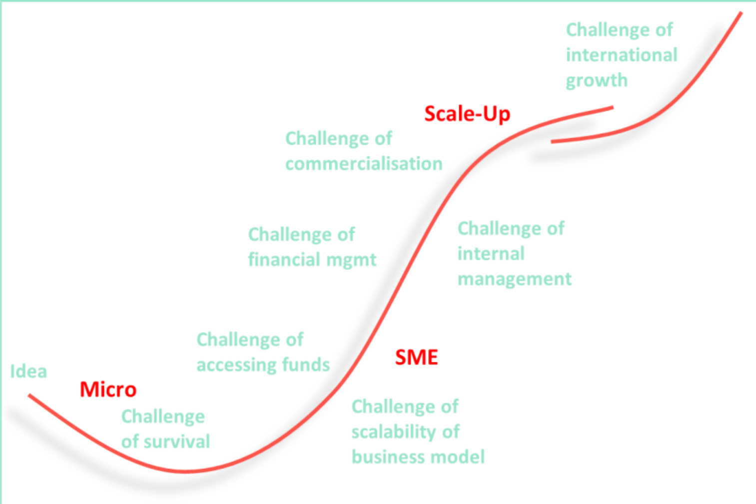

Figure 5 Challenges of Business Growth

Given high levels of urbanisation, cities play a crucial role to create the environment within which enterprises – particularly SMEs – can thrive. 'Business friendliness' for a city should therefore be a strategic priority, and a more deterministic approach by city hall can help cities get better at supporting successful launch and scale-up of SMEs.

2.3 European Start-Up Initiatives

The European Commission has placed considerable emphasis on the SME economy, and identified five priorities to support their success:

- the promotion of entrepreneurship and skills;
- the improvement of SMEs' access to markets;
- cutting red tape;
- the improvement of SMEs' growth potential, and;
- strengthening dialogue and consultation with SME stakeholders.

Not surprisingly, these are consistent with the framework in figure 5. The potential scale impact from EC initiatives however plays a foundational role in establishing market conditions at a macro level that can help deliver economic vitality across the union. There have been a number of large-scale policy initiatives over recent years to support SME growth, for instance the SPOCS programme (single point of contact for service sectors) that sought to simplify cross-border trade. The more recent Digital Agenda and Startup Europe[3] initiative focuses more particularly on the digital / ICT sectors (that would also be important for the 'smart cities' market).

The overarching priority rests in the "Entrepreneurship 2020 Action Plan[4]" that is a discrete and bold plan to bring the European economy back to growth by focusing on supporting entrepreneurs. This has three principal areas of attention:

i. entrepreneurial education and training to support growth and business creation;
ii. removing existing administrative barriers and supporting entrepreneurs in crucial phases of the business lifecycle;

[2] http://www.businessrevieweurope.eu/leadership/861/Do-8-out-of-10-businesses-really-fail-within-a-year
[3] https://ec.europa.eu/digital-single-market/en/startup-europe
[4] http://ec.europa.eu/growth/smes/promoting-entrepreneurship/action-plan/

iii. reigniting the culture of entrepreneurship in Europe and nurturing the new generation of entrepreneurs.

2.4 An Economic Development Framework for Cities

Affecting the economic future of a city is a non-trivial undertaking. It takes years. It involves taking measures at multiple levels across multiple areas. Specific inputs and evidenced outputs are often hard to connect. Interdependencies are intricate and many. And enabling factors (that are harder to 'touch and feel', like leadership) can have profound effects. Like so many aspects of managing cities, taking a systemic approach is vital; and seeking to develop things over the long term is essential in order to progressively manage the development trajectory.

Figure 6 shows a pragmatic framework for "The 6 Levers of Economic Development".

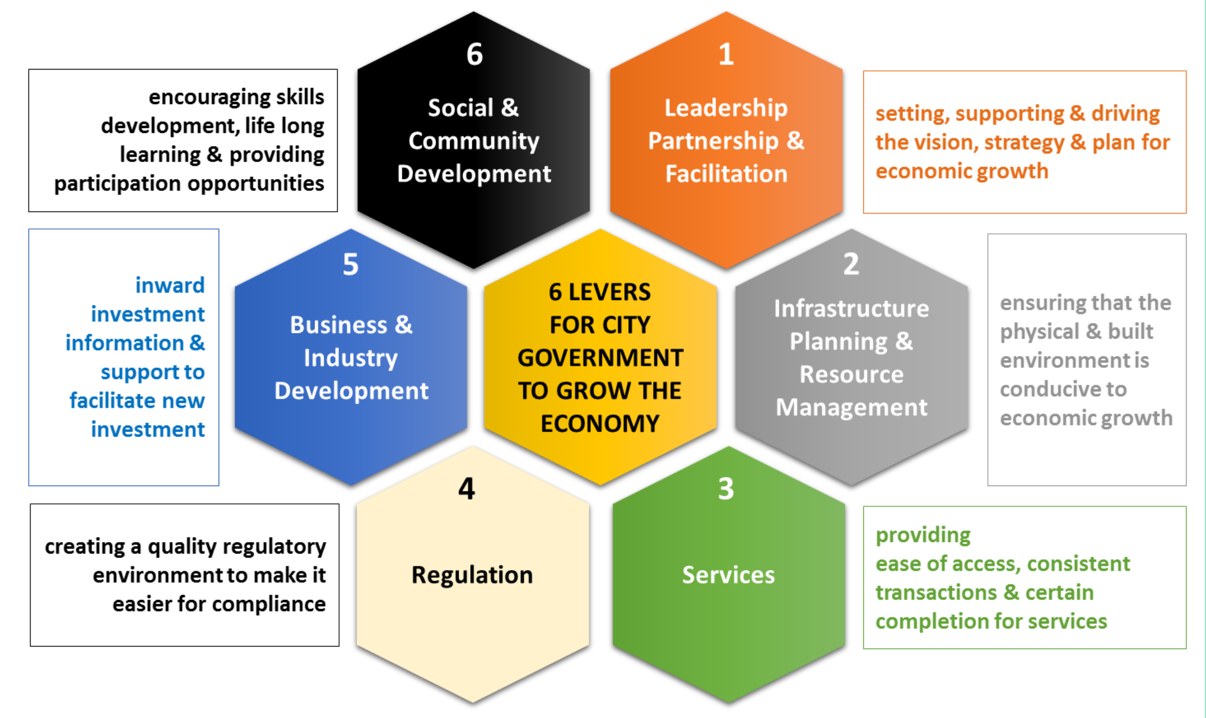

Figure 6 The Six Levers of Economic Development

This model and equivalents are broadly elaborated in a variety of publications. A notable and relevant one being a paper for the UK Local Government Chief Executive community, published by SOLACE (Society of Local Authority Chief Executives)[5].

The combination of EU, National, and City-level attention to jobs and growth, with aligned priorities, offers the opportunity for positive economic impact. However, this will require sustained effort, and most importantly it will require considerable new efforts at (collaborative) city level to ensure the capacity and attention is put in place to stimulate growth.

Cities collectively hold the key to Europe's growth. The question is what more can they do to accelerate the process and increase the impact?

[5] SOLACE Levers of Economic Development http://www.solace.org.uk/knowledge/reports_guides/LGKN_NTK_ECONOMIC_GROWTH.pdf

3 London's Economic Development Context

This section provides context for Funding London, specifically related to the GLA's role, economic development landscape, the financing issues for London's businesses, and current active GLA funds

3.1 London and the Role of City Hall

London remains one of the foremost economic powerhouse cities worldwide. It has been for decades, and remains, a financial services capital globally. Sector economic re-diversification has however been seen over recent years with increasing focus on new technologies.

The Greater London Authority (GLA) is the principal public body that overseas economic development across the city as a whole. The 'GLA family' includes a number of public bodies that have direct influence over the economic wellbeing of the city, notably:

- *Mayor's Office* (City Hall), that explicitly addresses economic development policy and strategy, sets planning policy and executes specific planning decisions, and supports business intelligence and related functions
- *Transport for London* (TfL), that ensures accessibility within and to the city to support its attractiveness to businesses and visitors (NB transport and accessibility is the No.1 criteria for businesses in re-locating)
- *London & Partners*, who's role is to promote the city and build its international reputation; attract investment and visitor spend thus creating additional jobs and growth; attracting overseas businesses, events and congresses, students and visitors to London; and also helpi London businesses expand internationally
- *Mayoral Development Corporations,* like the Olympic Park, and Old Oak Park Royal DevCos that hold land and have planning power. These can engage and shape the market by building the appropriate partnerships with Industry, and support mechanisms for SMEs (directly or indirectly)

3.2 London's Economic Development Landscape

The landscape within which London's economic development operates is briefly summarized in table 1 below.

Table 1 London Economic Context

Theme and captured London Context
Regulation & Legislation
• **National: the UK Department for Business, Energy & Industrial Strategy (BEIS) steers economic development policy, working in association with other Government Departments, notably: Communities & Local Gov, Culture Media & Sport (for 'digital'), Justice, UK Trade & Investment, Competition & Markets; Treasury, and Cabinet Office**
Political / Governance
• **Elected city mayor with accountability for planning, economic development, policing and security, transport; and convening role for many other service areas** • **33 Borough Councils that provide** a wide variety of **local** front-line **services,** including concerning the **skills agenda** (local jobs/people)**; each with political and professional leadership** • **A London LEP (Local Enterprise Partnership) brings the public and private sectors together around the economic development agenda**
Policy
• **London has 5 Mayoral priority themes (i) Growth/Jobs (ii) Skills (iii) Infrastructure (iv) Environment (v) Equalities** • **Policy of sector diversification (mitigate reliance on Financial Services)**

Economic
• London's total economic output (as measured by Gross Value Added) reached £378.4 billion in 2015, an increase of 3.2 per cent on the previous year. • London's share of the whole UK economy has increased over time, up from 18.7 per cent in 1997, to 22.7 per cent in 2015 • The Financial and Insurance activities sector is the largest sector of London's economy in terms of output, worth £61.7 billion (or 16.3 per cent of London's total output). • The importance of London to the UK (and European economy) is shown by the fact that if London were a country in its own right, it would be the 8th largest economy in Europe. • London has higher levels of labour productivity when compared to the rest of the UK, with Gross Value Added per workforce job in London in 2015 around 49 per cent higher than the UK excluding London.
Societal
• London's high inflow of international migrants means it has become something of a hub for foreign-born communities. Approximately 3.1m people living in London were born abroad (37 per cent of the total population). • This has made London a city renowned for its diversity. Some 40 per cent of its residents perceived themselves as Black, Asian or Minority Ethnic. • London has a highly skilled workforce, with over half of all workers in the capital being educated to at least degree level. • Its world class transport infrastructure also allows for a highly mobile workforce, with 2.7 million people able to access central London within 45 minutes. • London has an important relationship with its neighboring regions in the south east of England with many commuting in to the capital for work. In fact London acts as the place of work for over 40 per cent of these areas' total workforce. • The capital not only attracts people for work, it also attracts students to its 48 universities, which feature prominently in international rankings. There are over 100,000 international students in the capital who are estimated to directly contribute £3 billion to the UK economy and support 37,000 jobs.
Investor Market
• London features prominently across a range of city ranking indices – it is rated at the leading global city according to the PWC Cities of Opportunity and Global Financial Centres Index. • Over time, London's status as a global city has developed as a result of its central location, overlapping the business hours of other major business locations. It attracts business and people due to its well established legal and regulatory environment, its political stability, and a competitive tax structure. • Over the course of the last decade, London has consistently been in the top three cities for the number of inward investment projects coming to the capital. • The importance of London as a base for business operations is shown by 40 per cent of Fortune 250 companies having their global or regional HQ in the capital (the next highest city is Paris on 8 per cent) • According to the EY Global Investor Monitor, London received the second highest number of positive responses to a question looking at which three cities in the world offer the best chance of producing the next technology giant (with 23 per cent positive responses; San Francisco led with 29 per cent) • Fast-emerging Fin-Tech, Med/Bio-Tech markets now exist in London. The potential to shift to Gov-Tech, and Civic-Tech hold substantial potential to deliver important social outcomes. Demand aggregation is important to enable such developments and to add the value that such moves could bring. Also new business models and financing mechanisms that complement this will be needed (like SIBs – social impact bonds)
Physical Facilities

- **Investment in infrastructure enables London to remain a globally competitive city into the future, for example in broadband, energy, water and transport.**
- **GLA Economics employment projections indicate that the service sector will be the main driver of growth in London over the coming years, creating significant demand for office space.**
- **Analysis undertaken by IPPR for the London Enterprise Panel in 2016 found there were 148 co-working spaces, 24 incubators and accelerators, and 57 makerspaces in the capital.**

3.2.1 Issues of Access to Finance for Businesses in London

The UK Government's Department for Business, Innovation and Skills (BIS) produced a review of SME Access to External Finance in 2012. The review described the main market failures as relating to imperfect or asymmetric information on both the demand and supply side.

In summary, the review found that in terms of debt finance there is perceived to be a financing gap for businesses that lack track record and collateral, which makes it difficult for the lender accurately to assess risk. As a result, some young companies with good business ideas (particularly new and innovative ideas) fail to secure the funding they require to grow. The review also highlighted the existence of an 'equity gap' for high growth potential SMEs. For example, many SMEs with growth potential may only require relatively small investments, particularly at an early stage however, due to the risk and due diligence costs, investors and risk capital fund managers tend to focus on fewer, larger investments in more established (lower risk) businesses.

Certain sectors face increased difficulties in accessing finance in comparison to others. For example, certain creative industry sub-sectors have reportedly found it more difficult to access finance. They found that software and publishing businesses as well as innovative technology based start-ups (i.e. IoT, Big Data) are more likely to have finance applications declined compared to non-creative industry businesses, which in the main comes down to viability of the firm and a lack of understanding between the businesses and finance providers (i.e. heightened asymmetric information).

3.1 Active City Hall (GLA) Investment Funds in London

There are three active investment funds under the sponsorship of GLA of note which are briefly described below as context.

3.1.1 MMC Venture Fund

The MMC London Fund was established in October 2012 and was partly financed via a £9m grant from the ERDF 2007-2013 Programme. It has a similar mandate to the London Co-Investment Fund (below) however differs in its governance set-up in that it makes investments in later stage SMEs. The Fund has invested £14m in 19 companies and is now in its 'managing portfolio' cycle.

Investments are typically between £200,000 and £500,000 per round and it is expected that each portfolio company will require between two to four investment rounds. The investments are part of a well-diversified portfolio across several sectors, company stages and geographic locations within London.

Notable investments include Sky Futures, a company that specialises in providing state of the art drone intelligence to the oil and gas sector and Wool & Gang, an online fashion knitwear brand.

3.1.1 Social Enterprise Loan Fund

GLA has used some of its legacy funds to partner up with Can Invest and UBS to launch the Early Intervention Fund, an initiative designed to accelerate positive early intervention impact on communities and individuals in London. It does this through providing loan financing to voluntary, community and social enterprises (VCSE) who deliver innovative, demonstrably effective products and services in the 'early intervention' space for the benefit of children and young people.

Loans of between £5k – £100k are available and depend on the needs of the organisation. They can help with common issues such as:

- Working capital / cash flow - to help organisations manage 'payment in arrears' style contracts
- Growth finance - to help organisations pilot a project for later expansion
- Early Intervention outcomes - to help facilitate payment by results contracts, mini SIBs, or other similar work

3.1.2 London Co-investment Fund (LCIF)

The LCIF was launched in December 2014 to target investments in high growth SME's in London's strategic sectors of Science, Digital and Technology as defined in the London Plan thereby addressing the funding issues faced by early stage SME's with high growth prospects.

Investment decisions are made in partnership with 10 co-investment partners that include a consortium of investors from the business angel and venture capital community and two of the leading crowd-funding platforms in the UK. The funding model was purposely designed in such a way that would minimize operational costs, maximize private investment and enable more efficient allocations of funding. The LCIF will invest £23m into 156 high growth businesses over three years, lever in £2.90 of private sector investment for every £1 GLA invest, create 2,653 jobs and generate £130m of GVA per annum by year 8 of the fund.

The specific objectives of London Co-Investment Fund (LCIF) are:

- To support seed stage businesses
- To focus on the science, digital and technology sectors
- That businesses would be London-based
- To fund individual businesses that sought to raise between £250k and £1.25m
- To invest on the same terms as co-investment partners

4 FUNDING LONDON

This section clarifies what was behind setting up Funding London; its set up and operation; the (smart city) investment opportunities that emerge; synergies with Sharing Cities; and key learnings.

4.1 THE OBJECTIVES THAT FUNDING LONDON SEEKS TO ADDRESS

Funding London's long-term mission is to create funds to support high growth businesses that are the engine of economic growth in London. As such, it seeks to identify scale up candidates and support them through their expansion (figure 7).

Its genesis was born in SME Wholesale Finance (SMEWFL) which was established in 2004 by the then Mayor of London for the purpose of providing and administering venture capital and loan funds to London based SMEs that found it difficult to access traditional sources of finance. A number of access-to-finance programmes were created for SME Wholesale Finance Limited (SMEWFL) to deliver, that address the well-established equity gap and lack of finance for 'un-bankable', although viable, SMEs. In 2014, SMEWFL changed its name to Funding London to better reflect its alignment with London's priorities.

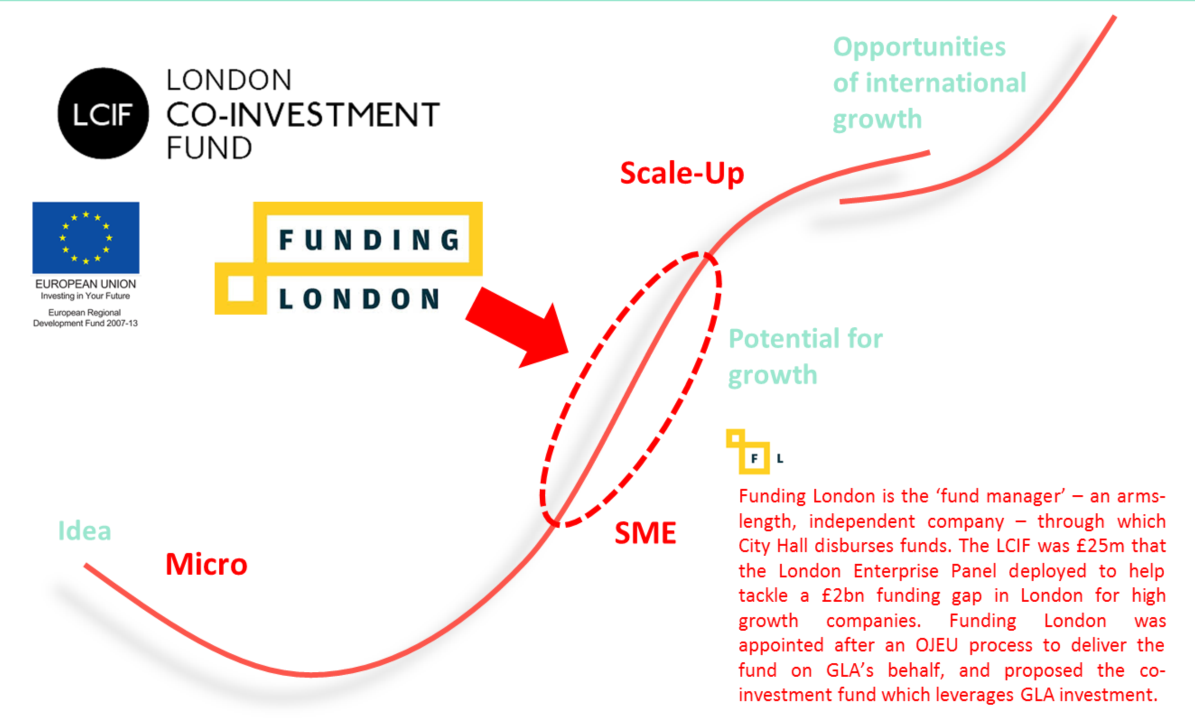

Figure 7 Funding London

4.2 HOW THE FUNDING LONDON MODEL WORKS

Funding London is a company limited by guarantee under the Companies Act 2006. It acts as a holding fund for a number of different funding streams. The purpose of the company is to invest in and assist SMEs based in London to enable them to secure finance and investment to facilitate their growth. The holding fund structure of Funding London is shown in figure 8.

Funding London draws down funds to invest in suitable initiatives alongside the leveraged private investment generated.

The fund operates in a way that is designed to enable repayment of the Public Body's original investment back to the organisation. Additional profits generated by the fund can be reinvested in further funds (a decision that could be made in the future and will be informed by an independent assessment taken once returns are realised).

The sectors targeted by Funding London go well beyond smart city opportunities, however do include smart city businesses.

The fund works with both traditional finance providers, i.e. VC firms and angel investors as well as more innovative funding models, i.e. syndicates and crowdfunding platforms, to ensure a mixed offer of provision and diversified referral pathways. All partners must demonstrate a robust track record of investing, considerable market knowledge, and excellent returns on capital.

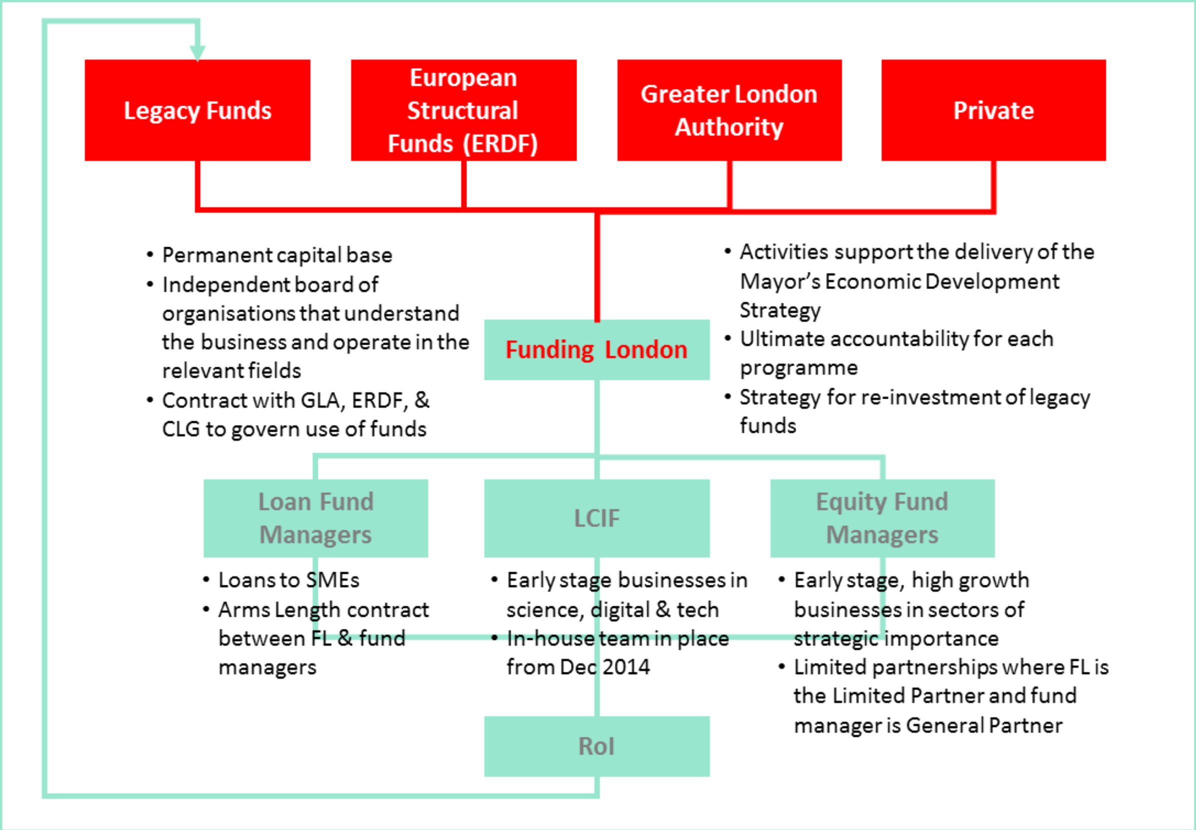

Figure 8 Funding London Model

The fund is structured in a way that allows for maximum flexibility whilst ensuring value for money. For example, through the use of a "Holding Fund" structure, it facilitates investments and acts as a bridge between the private sector fund managers and the public body. It also introduces an extra layer of "checks and balances" between the public sector and the co-investment partners and assumes the financial risk, reporting and other obligations which are difficult to pass on to early stage funders in the private sector.

Returns from Funding London investments build a legacy capital base that enables ongoing sustained investment in other opportunities.

4.3 Governance of Funding London

Funding London is a company limited by guarantee. It presently has six members, 4 private and 2 public sector, who each nominate a non-executive director to serve on the company Board. The GLA is a member of the company and the current nominated Director is a senior officer from City Hall. The executive team comprises a number of highly experienced financial professionals including an in-house fund manager.

4.4 Funding London's Vital Statistics

To date (to Nov '16) the London Co-Investment Fund has made achievements as shown in figure 9.

Figure 9 Funding London Co-Investment Partners

Funding London's achievements to date include:

- More than £30m invested by three equity and four loan funds into over 400 SME's
- Co-investment multiple for venture funds at 4.4 times enabling a total of £106m into small businesses, and
- More than 2,000 jobs created or safeguarded

Presently there are ten co-investment partners, ranging from angel investors and angel syndicates to micro-VCs and crowdfunding platforms. Such a variety of partners were deliberately procured to get good market coverage and leverage in a wide range of subject matter experts with a good track record of investing and exiting.

The LCIF is a "passive investor" in that it relies on the skills and expertise of the co-investors to make investment decisions. Therefore, the LCIF had to have a rigorous process in place to approve co-investments. The information and level of due diligence required for all co-investments is documented in the standard partner agreement and partners are contractually obliged to capture and share the following:

- Investment amount and terms, which should include details of the proposed investment (amount, stake and valuation) and any rights attached to the investment (voting rights, transfer restrictions, pre-emption rights etc.)
- Due diligence requirements (basic company information, senior management CV, any intellectual property rights that are owned by the company and any market intelligence on the sector they are targeting)

The above means that considerable market intelligence and insight into high growth sectors has been captured from both Funding London's investments over the years (incl SMEWFL), and the more recent involvement of GLA, which increases the likelihood of success for future investments and aids in policy development for targeted City Hall interventions moving forward.

4.5 Smart Cities Investment Opportunities

Funding London has specific focus sectors: science, digital and technology. Several of which will be directly relevant or adjacent to smart city activities.

Delineating what is a smart city investment versus a non-smart city investment is somewhat subjective. 'Smart city' can be assumed to be a narrow definition along the lines of "…*the application of ICT to*…" or a broader perspective, as taken by ISO (June 2015 definition):

> *A Smart City might be described as one that…*
> *…**dramatically increases the pace** at which it improves its sustainability and resilience,*
> *…by fundamentally improving how it **engages society**, how it applies **collaborative leadership** methods, how it **works across disciplines and city systems**, and how it use**s data and integrated technologies**,*
> *…in order to **transform** services and quality of life to those in and involved with the city (residents, businesses, visitors).*

The latter definition is more all-encompassing, in that it includes core technology businesses (IoT etc), *and* how data and technologies are used in conventional businesses to positively influence city outcomes.

Analysis of Funding London applications shows that up to 20% of the 1100+ opportunities that are coming through the fund can be directly applicable to the "smart cities" agenda (tending to the narrow definition). These show an even split between B2B and B2C models. Some of these opportunities are "too early" for the (FL) market, in that their business model is still evolving (how to sell the service, how to price it), thus the opportunities are not advanced on that basis.

The LCIF's Investment partners approach smart cities sectors, like any other sectors, targeting:

- Large market opportunities
- Disrupting traditional labour-intensive processes to become efficient and cost effective
- Improve connectivity between business or consumers and other consumers

In addition to the obvious sectors (e.g. energy, transport), analysis of applications shows other business models that can benefit the "smart cities" agenda, for example Retail Tech that allows independent retailers on the high street or farmers to connect with consumers and improve customer insight/experience. Six obvious sectors and a further two "not-so-obvious" sectors have been identified, and are shown in figure 10, and are elaborated in table 2.

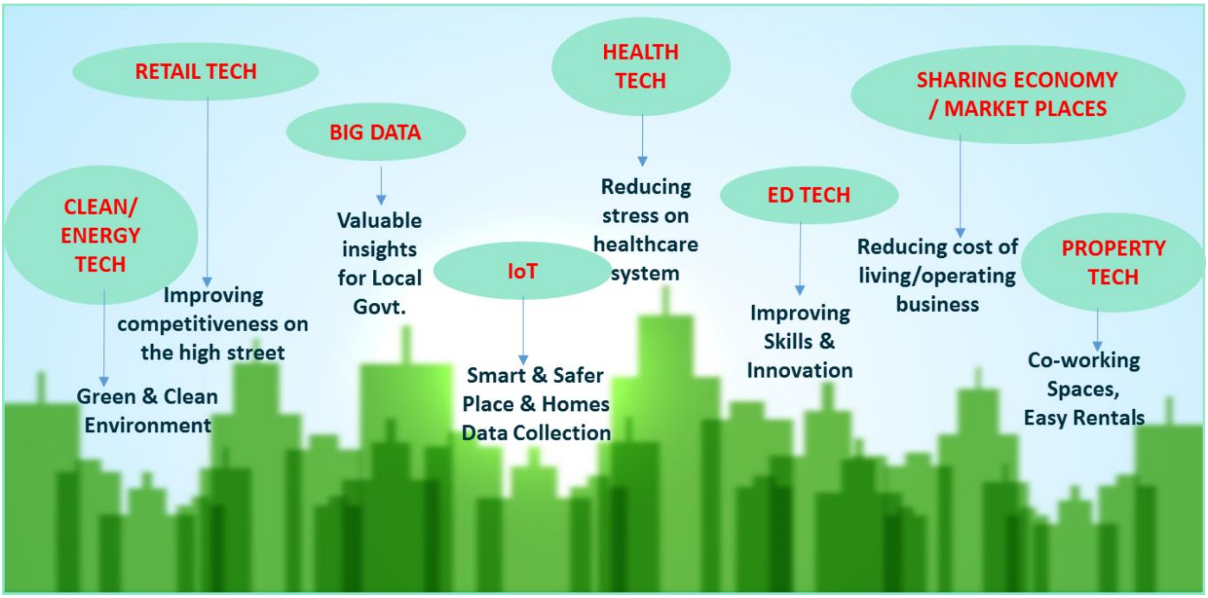

Figure 10 Potential Smart City Investment Opportunities

Table 2 Smart City Investment Opportunities

Sector	Market opportunity	Smart Cities
Clean Tech (incl. transport & energy)	Enabling consumers / businesses to adopt and maintain **environmentally friendly / energy efficient** practices. Also, include energy capture, transformation and storage	Pollution reduction, noise reduction, lower demand for landfills. Healthier population. eVehicles. Cost efficiency, **environmental benefits**
Retail Tech	Improving **competitiveness on the high street** to retain vibrancy in city centres	Opportunities to collect **people-movement data** to inform local businesses (e.g. to provide promotions and special offers to passers-by that may choose to receive them)
Big Data	The power to **analyse unstructured data** to draw meaningful insights	Insights will help the local government & business to make strategic decisions and stay a step ahead to **identify opportunities for growth.**
IoT	Collection of useful data and ability to improve / deliver a wide variety of services with the aid of **connected devices**	**Empowers Local governments to understand consumption patterns** of utilities & essentials, identify needs, formulate solutions and use connected devices to **deliver solutions to pressing urban problems**.
Health Tech	Enabling the **management of chronic conditions and the diagnosis of minor illnesses** through apps. Increase empowerment of consumers	Cost savings, improved outcomes, increased availability of resources for critical conditions. **Reduces stress on healthcare facilities**
Education Tech (Ed Tech)	**Efficient interventions**. Freeing teachers from tasks that can be done automatically (e.g. maths grading)	Cost savings, **improved outcomes for groups of pupils with specific needs**
Sharing Economy	Efficient/cost effective use of scarce resources. Ability **to identify underutilised resources and monetise** them.	**Citizen well-being. Business productivity.**
Property Tech	Matching people with **right housing solutions**, cost effective, cuts out the middleman. Apps enable **sharing of costs** or aggregate buying power	**Affordable housing and the cost of living** in general are a huge issue to be tackled

4.6 Synergies between Funding London, Sharing Cities, & SCC01 Programmes

Sharing Cities seeks to implement smart city solutions with a focus on low carbon energy systems, transport and related infrastructures. Specific goals include adopting common solutions, where that is feasible, in each of the participating cities; scaling up solutions within each city and amongst other scale-up cities; and collaborating with the EIP-SCC and other SCC01 programmes to expand these goals to mutual advantage.

These activities involve *demand aggregation*, and given that much of the smart city activities directly involve city hall or are 'convened' by city hall, there are most likely substantial *public procurement* activities – potentially cross-border. With a greater level of focus on defining common city-needs, there is more likely a greater level of *standardization* in the products being procured (if not in the physical product, then at least in the logical design – both good for the supply market). SMEs can benefit from this as 'standards make markets' by providing a consistent and trusted norm for business to work to.

The convening role of public sector organisations in this process is therefore instrumental. This creates a considerable and conditioned smart cities demand that can be highly attractive to supply – in other words, an important demand-led market shaping role.

Given SMEs / scale-up businesses are so important to cities, the opportunity to positively influence the pan-London market through Sharing Cities is significant. Complementary activities in the other cities will be mutually beneficial in that Funding London supported businesses can benefit from export opportunities to other countries; and with common solutions, vice versa. With greater adoption amongst the SCC01 programmes and EIP-SCC, cities *that take appropriate actions* can play a greater role in local competitiveness of their SME economy.

The vital 'missing ingredient' in the mix, as seen from the industry perspective, is the execution ability of the SME businesses in question (see figure 11). That is where carefully managed funds – like Funding London – can play a role. And cities' broader activities to develop a business-friendly environment (the components in figure 6) become instrumental; for instance in helping to build the necessary skills base to feed staffing requirements for target businesses, and provide support to build essential management capabilities within these businesses. And to ensure the physical infrastructures and services are conducive to businesses.

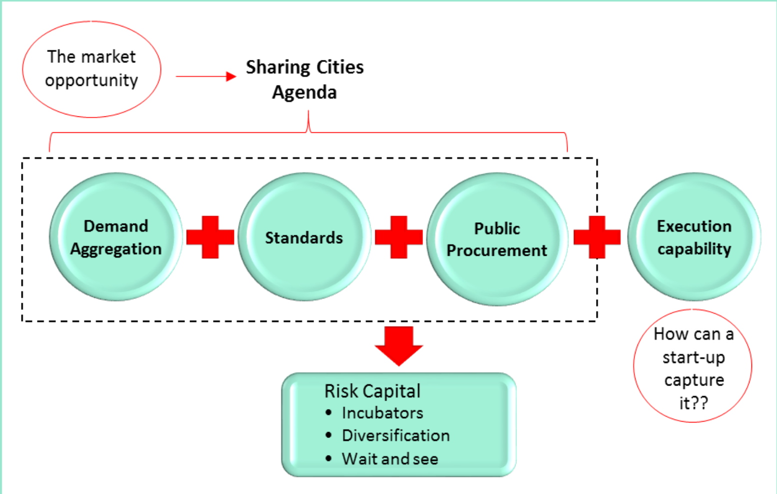

Figure 11 The Market Opportunity

There is an important role that Sharing Cities (and the other SCC01 programmes) play through the delivery of new and better sources of open data. This can be considered as 'fuel' for many digital start-ups. The potential that results from this will become more apparent towards the latter portion of the programme, however such opportunities are clearly in sight.

4.7 The Process of Implementing a Co-Investment Fund

4.7.1 *Timeline and Costs*

The overall timeframe to implement a co-investment fund is estimated to be 12- 18 months. Broadly the steps that were applied are as follows:

Table 3 Steps and Timeline indications to set up a Co-Investment Fund

#	Activity	Who	Timeframe
1	**Approval of Business Plan** • LCIF/FL submit business plan for review by GLA ahead of official submission to IPB (Investment & Performance Board) • Business plan appraisal completed • Submission to IPB • Feedback points resolved and final submissions to IPB	LCIF GPF team (Growth Places Fund team)	~3 months
2	**Mayoral approval**		~1 month
3	**GLA Due Diligence on Funding London** • Initial information requirements • Due diligence process concluded	GPF Team	2-3 months
4	**Contract negotiations** • GLA to provide draft contract to Funding London	GLA / Fund Mgr	3 months

	• Contract negotiations concluded • Contract signed		
5	**Procurement of investment partners** • Publication of prior information notice • Publication of OJEU and PQQ • Responses received • Response analysis concluded • Approved short list of candidates • Tenders received from short list • Evaluation of tenders concluded • Appointment of investment partners	LCIF	6-9 months following Mayoral approval (2)
6	**Investment partner contracts** • Contracts signed	LCIF / Partners	
7	**Operational infrastructure** • Team recruitment • Team in place	LCIF	~3-6 months
8	**Fund launched**		~month 12
9	**First investments**	LCIF/Partners	~month 12

4.8 KEY LEARNING FROM THE LONDON CO-INVESTMENT FUND

Funding London has been involved in supporting the economic development of the targeted SME community in the city for the best part of 12 years, albeit as an investor in funds rather than a direct investor and participant in the early stage ecosystem. The London Co-Investment Fund model has been in place for 2 years; however the model has gained very high prominence and recognition in the early stage London scene.

Overall the most important lesson in the experience of Funding London and in the context of the London Co-investment Fund is that, in order to deliver specific economic development strategies and achieve clear outcomes, cities must leverage the expertise and experience of finance professionals who can act as a bridge between public policies and the benchmarks and practices of the relevant sectors of the investment eco-system.

5 Opportunities to Exploit ‘Funding London’ in Sharing Cities

This section discusses the potential way forward for Sharing Cities (& beyond) to exploit the London experience; addressing the cities readiness; the process to create a fund; and specific forward plans.

5.1 Cities Context

The six cities involved in Sharing Cities all have very different settings:

- ***London*** – national and worldwide financial capital of 8 million inhabitants (13.5 metro area) with clear scale advantage and a vibrant economy
- ***Lisbon*** – a national capital of modest scale (½m city; 2.75m metro area)), however significant national influence
- ***Milan*** – a regional business hub of significant scale (1.25m city, 5.25m metro area) and important national business influence
- ***Burgas*** – fourth largest city in Bulgari of 280,000 (urban area), with important industrial and national transport roles
- ***Bordeaux*** – a regional destination capital with ¼m population (720,000 metropole) and a famed wine-growing economy
- ***Warsaw*** – a significant-scale national capital (1.7m city / 2.6m metro) with financial and business influence nationally

The opportunities for these cities to establish a local SME/Scale-up fund similar to London Co-investment Fund is dependent on a number of contextual factors, and of course most importantly on current political ambitions.

To aid the structured and rational assessment as a basis for such a decision, the intention is to develop a development assessment framework, likely based on the 6-block model outlined in figure 6. This could describe different stages of development (e.g. from ‘lagging’ to ‘excelling’) – see figure 12 – that helps each city simply and pragmatically assess its current state, and horizon ambitions. Implementing a London Co-investment Fund type model would benefit from a ‘competent’ level of assessment (e.g. stage 3). Such an assessment would also help each city to identify an appropriate and more general action plan for improvement.

Theme & Characteristics			City’s Development Assessment				
			1 Lagging	2 Developing	3 Competent	4 Progressive	5 Excelling
1	Leadership Partnership & Facilitation	Setting, supporting & driving the vision, strategy & plan for economic growth	*Fragmented Leadership & Engagement*	xxx	Action Plan		*Driven sustained political priorities & collaboration.*
2	Infrastructure Planning & Resource Management	Ensuring that the built environment is conducive to economic growth	xxx Current State	*Business friendly built environment & transport facilities*			Desired State
3	Services	Providing ease of access, consistent transactions & certain completion for services	xxx	xxx	*Clear roadmap for transactions and advice*	xxx	
4	Regulation	Creating a quality regulatory environment to make it easier for compliance	*Highly constraining regulatory environment*		*City influence on regional/national regulation*	xxx	*Innovative local ‘regulation free zones’ to stimulate growth*
5	Business & Industry Development	Inward investment information & support to facilitate new investment	xxx	xxx		*Active effective international investor engagement*	
6	Social & Community Development	Encouraging skills development, lifelong learning & providing participation opportunities	*No clear policy or plans*		*Universities hard-wired into business innovation cycle*		xxx

Figure 12 Economic Development Assessment Model

5.2 The Process to Create a City-Specific SME Fund

The above assessment can inform a city's ambitions as regards exploiting the Funding London experience and implementing a similar model, tailored to the local context.

With a positive decision, the suggested process to follow builds on the Funding London experience and is shown in figure 13 which captures 7 broadly sequential steps. These are then described in more detail.

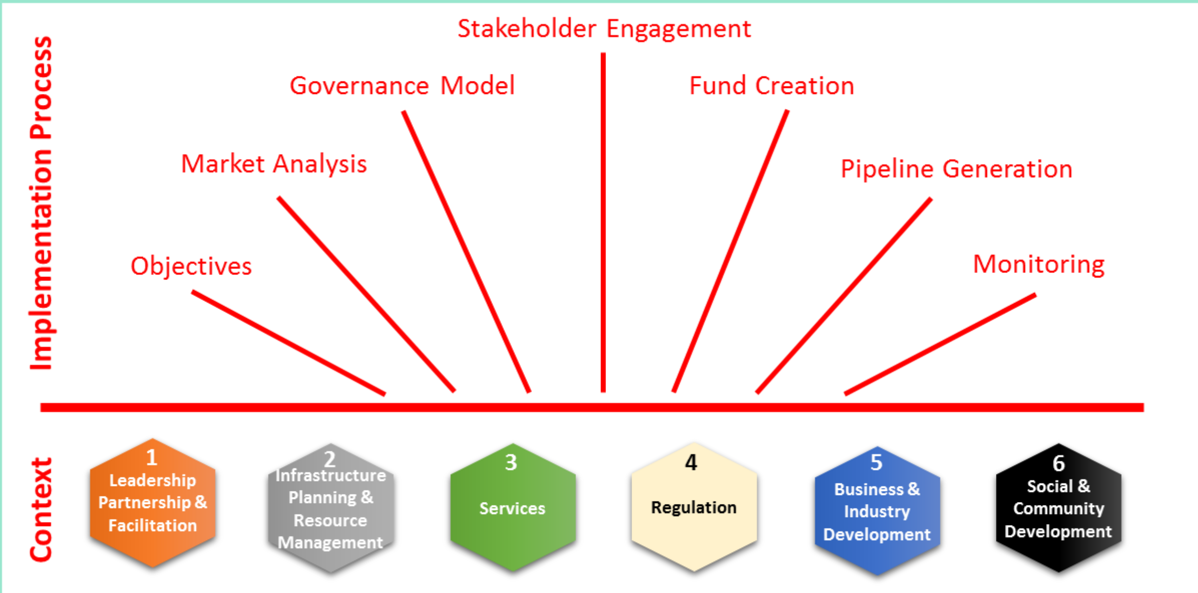

Figure 13 Readying & Implementing a Funding London Model

5.2.1 Objective Setting

Understanding the core reasons for 'city hall' to take an interest in SME investment is essential, particularly as an action of this type will come under public scrutiny.

Objectives could include the likes of:

- Help accelerate and / or deliver political priorities
- Demonstrate innovative thinking and action from within City Administration
- To use public funds to stimulate growth in particular target sectors / segments
- Influence the process and model for support of start-ups within the city
- Build internal capabilities to improve the influence over national enabling conditions, and local investor actions
- Take greater control of city data by (investing in and) influencing the SMEs that are using the data, and thus many other (larger) businesses that might otherwise take a closed / proprietary position
- Improve the understand of valuation and monetization of city data
- Develop and grow a capital base

5.2.2 Market Analysis

Market analysis is likely to be available within most cities as an input to inform further and deeper analysis for this specific investment fund opportunity.

- Industry Analysis: Business registrations #s; #SME start-ups – success and failure rates; sectors;
- Investor Analysis: #VCs; funds assigned; #/value of various investor types locally
- Infrastructure: # incubators;
- Fund performance data;

- Levels of investment and year to year trends;
- Risk Analysis:

5.2.3 Establishing the Governance Framework

- Developing the right internal capabilities
- Ensure best practice is adopted which usually means benchmarking the best of breed fund management organisations
- External advisers
- Investment strategy to incorporate diversification and feedback from stakeholder input
- Risk management

5.2.4 Stakeholder Engagement

A thorough stakeholder analysis is required to inform plans. This should include at least:

- ***Public Bodies***: City Hall, Economic Development Agency, Regional Economic Partnerships, Central Government Departments, …
- ***Industry***: Major (local) Invested Businesses, Industry (Membership) Associations, Chambers of Commerce, Institute of Directors, SME Networks, Incubators, Temporary Office Accommodation providers, …
- ***Investor Community***: Institutional Investors, Commercial Banks, Sovereign Funds, High Net-Worth Individuals (living locally), angel Networks, Venture Capital firms, Pension Funds, Insurance Companies, …
- ***Others***: Universities, Further Education Establishments, Press, Society, …

Engaging the pivotal stakeholders is likely to involve individual discussions, and can benefit from the convening role of the Mayor / Political Leaders. As such it is highly recommended that a structured approach is taken to the stakeholder analysis exercise.

Workshops and other forms of more open forums to build support of and communicate with the various stakeholder groups.

5.2.5 Structuring the Fund

- Focus on understanding how any necessary deviations from benchmark structures may affect the alignment of interests with investment partners
- Performance and fee structures must be carefully determined
- Investment periods, portfolio size and other deliverables must not cut across key commercial practices

5.2.6 Deal Pipeline Creation

- Set and rigorously apply Criteria
- Clarity, nimbleness and focus of Targeting
- Engagement process

5.2.7 Monitoring and Evaluation

- Target setting – must be realistic.
- Metrics
- Monitoring process – internal team capabilities should be carefully designed to be an effective “translator” of public sector goals in the context of private sector practices
- Evaluation – public scrutiny. This must be clearly explained to and understood by the private sector before any agreements are signed

6 Conclusions & Way Forward

The question this report addresses is whether the London experience of launching a city-hall-led SME investment fund can be of value for other cities.

London has certainly benefited from the initiative in that it has helped the city authorities strategically steer the market to help develop focus sectors; and has helped the city authorities understand more deeply the needs of businesses and of investors – by being directly involved in the process. In doing so, the city has built valuable in-house capabilities that can link with fund management expertise to make a positive difference in supporting early stage SMEs in specific sectors.

The cost to undertake the process is not insignificant, so it must be done with clarity of purpose. However the financial and strategic gains outweigh the costs handsomely.

In order to add value in other cities, there does need to be (i) sufficient market scale within the city / metro area (ii) a suitably developed investor market, and SME innovators (iii) suitable capacity in place within the public institutions to support set-up and governance. An outline development assessment model is tabled that with further work within Sharing Cities can provide a tool to support such city assessments.

To complement this, Sharing Cities will bring together the lead and fellow cities to clarify the process and experience, and assess interest in each city, recognising their unique specific contexts.

This report outlines a framework and approach that could see similar funds in place within 18 months of an 'in principle' interest within a city.

To capture this potential, we will work together with Work Package 5 (Replication) and the Lead and Fellow cities, and undertake the following specific tasks:

1. Offer this document and the draft development assessment model to each city, via the city leads – Jan '17
2. Run a webex with appropriate city officers to agree which cities will move the agenda forward – Jan/Feb '17
3. Identify the likely political leader for such a development, and engage that individual in an exploratory discussion – Feb '17
4. Capture the local context in a structured fashion – March '17
5. Run a workshop with the appropriate political mandate, also involving LCIF and Funding London board members / executives, to develop a plan for each city – June '17 (London)

Further Sharing Cities testing of the emerging tools, and analysis of each city's situation could then lead to a packaged model that could be offered forward to other SCC01s, and other interested cities through the EIP-SCC.

Such action can lead to cities taking a more deterministic role in supporting economic growth within target (digital) sectors within their cities – in aggregate a key step to address the 'jobs and growth' agenda.