



ANALYSIS

# Financing innovation

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## About



Mobile for  
Development Impact

GSMA supports the digital empowerment of people in emerging markets through its Mobile for Development Impact programme, used to inform investment and design decisions for mobile services. Our work is freely accessible through support from Omidyar Network and in partnership with The MasterCard Foundation at [gsmaintelligence.com/m4d](https://gsmaintelligence.com/m4d)



## Executive summary

The mobile start-up and small and medium enterprise (SMEs) ecosystem is growing. While the majority of innovation has historically come from Silicon Valley, in recent years other hubs have taken hold in Europe and, increasingly, emerging markets. In Silicon Valley, tech firms and internet players have been at the forefront of innovation, but in emerging markets it is increasingly mobile operators that are demonstrating how to foster this in the absence of the widespread entry of traditional capital providers. Ultimately, self-sustaining innovation ecosystems require enabling environments built on a mix of education and mentorship, infrastructure, visible success stories and exits, and capital providers, and we see operators as having an opportunity to play an increasingly direct role in the space over the next 3-5 years.

**1. Silicon Valley has long been a pre-eminent centre for digital technology and innovation, with its success prompting questions around how new, similar centres in other parts of the world may form. Europe and the Middle East in particular have seen an increase in hubs, with notable successes in London, Berlin and Tel Aviv. More recently, attention and indeed capital has expanded to include emerging markets. While there is an increase in activity in this space, there are however a set of investor perceptions that are a key barrier to developing sustainable entrepreneurial ecosystems in these countries. These are not driven by the technology capabilities or idea generation of the entrepreneurs seeking funding, but by a general lack of business skills and acumen to monetise them. This has led to a lack of funding for early stage ventures, where a significant chunk of budding innovation sits.**

Rising mobile penetration, increasing pervasiveness of the mobile internet and the opportunity to offer services that fill access gaps for mid and low income populations (in areas such as financial services, health and employment) are driving growth in the mobile start-up and SMEs ecosystem in emerging markets. China has, for example, become a formidable innovation centre, with several high-profile companies recently taking the step to list in the US, a sign of growing prominence. Latin America has also seen an increase in innovation centres (such as Santiago), as has South Asia (with centres including Bangalore and Colombo) and, albeit at a smaller scale, Africa (with Nairobi a notable hub).

This is a positive growth story. However, in the context of creating self-sustaining innovation hubs, there are at least two challenges. First, the flow of investment into emerging market centres still appears to come mostly from international providers. Of course, this is in many ways highly beneficial based on the merits, mission and distribution of that funding, with much of it tied to social impact in addition to, or even in the absence of, financial return. But, in many areas it is accompanied by the reality that a country's domestic investors *also* choose to invest abroad.

The opportunity cost of this can be significant as these investors are arguably those best positioned to effect the development of an enabling environment by providing the integral ingredients to the formation of sustainable ecosystems – especially mentoring and other capacity-building activities that complement funding. The second challenge, tied to the flow of investments, is a lack of early stage funding, specifically, the pre-seed and seed stages (roughly below \$250,000, but especially below \$100,000), where only

around 15% of ICT investments fall into in emerging markets. Consequently, while there is a great deal of positive innovation happening in the mobile and wider ICT space, the socio-economic benefits are at risk of remaining unrealised unless investment priorities change to foster more of this at an early stage of development.

**2. The scalability of the business model, entrepreneur business skills and experience are the greatest concerns that investors have when investing in ICT businesses in emerging markets. On the other hand, country risks (e.g. political and macro-economic) are not a primary concern for capital providers.**

To identify the risk perceptions of capital providers when investing in ICT in emerging markets, we conducted a survey in November 2013 sampling 33 organisations including donors, impact investors and venture capitalists (VCs), incubators and accelerators with active investments in emerging markets. While a host of risks were queried, the most prevalent concerns centred on the lack of scalable and replicable business models, a lack of business skills and entrepreneurial experience, and few or no attractive exit options. On the other hand, political and macroeconomic risks and the uncertainty of the ICT sector were considered the least relevant challenges. While to some extent these top of mind risk factors – lack of scalable and replicable business models and the business acumen of entrepreneurs – will apply to potential investees across the funding spectrum, they are heightened for early stage ventures given that it is here where failure rates are highest.

The relatively low concern with country risk is in some ways surprising given the premium often applied to generate a minimum rate of return when investing in countries with unstable governments, high inflation and currency fluctuations. But it is also encouraging as it reflects a tolerance for instability and latent desire to invest provided suitable opportunities present themselves. If there is an improvement in the business skills among an entrepreneurship base that is already eminently capable from a technical point of view, more investors are likely to take risks in emerging market centres, unlocking international and domestic sources of capital and wider socio-economic benefits. So, what is needed?

The obvious recommendation for entrepreneurs is to bolster the skills necessary for running a business and increase business exposure to make their investment profile more attractive to an investor audience keen to engage. Perhaps less obvious – but equally important – we believe there is large scope for investors to more actively engage with entrepreneurs and the wider start-up ecosystem to help address some of the challenges identified. The crux of this is to take a more hands-on approach in addition to providing finance. This means mentorship, sponsoring skills training and, for experienced investors and donors, taking ownership to build and develop local business angel networks. In short, investing in an enabling environment for entrepreneurship to flourish. Finally, at a more holistic level it is important to consider the public policy environment. Funding is just one of the factors that need to be addressed when developing a self-sustaining ecosystem. Government is another. Innovation success stories like Silicon Valley, Tel Aviv and more recently London and Berlin have all had pro-investment policies to encourage entrepreneurship and risk taking. Budding innovation hubs in emerging markets may be at an earlier stage of development, but the policy impetus for growth is equally important and should be considered a necessary complement to private funding.

**3. Mobile operators are becoming increasingly active in innovation in many regions, with this particularly the case in emerging markets. Many are actively involved in building entrepreneurial ecosystems in their operating countries, with some complementing this remotely by establishing a presence in existing hubs - namely Silicon Valley. But being involved in the start-up ecosystem isn't sufficient to be effective: collaboration is key. For operators, this means making assets and the terms of their use more attractive to entrepreneurs, and being nimble to act quickly. For entrepreneurs, the technical innovation has never been in question. The change is in approaching operators with clear business plans and rationale for partnership.**

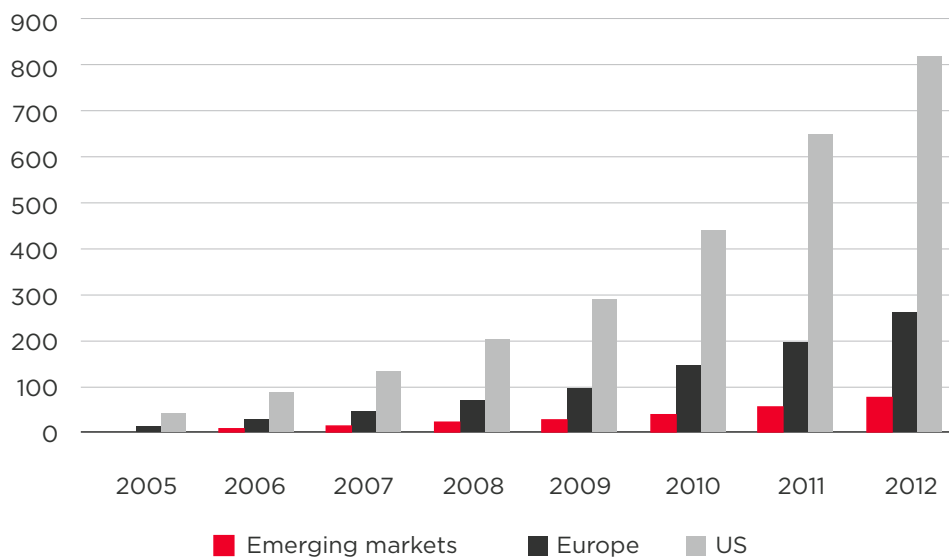
Market dynamics aside, operators face common challenges in retaining customer loyalty and developing new revenue streams as growth from traditional services, such as voice and SMS, slows. Fostering entrepreneurship can bring new opportunities. Many operators are already experimenting with innovative services by establishing a presence in innovation hubs, investing in or partnering with start-ups, exposing assets such as service delivery platforms and (albeit less common) promoting start-up and developer competitions. For example, Orange partnered with the Government of Senegal and the World Bank to launch an incubator dedicated to IT entrepreneurs in Dakar and has several projects currently underway in Niger, Mali and Tunisia. Ooredoo has launched incubators in Algeria, Indonesia, Tunisia, and Myanmar. In addition, operators representing 35% of global mobile connections have established outposts in Silicon Valley, characterised by a mix of involvement in R&D, direct investments and incubators.

To scale this, collaboration and partnership is key. Entrepreneurs move very fast. There are both practical and cultural reasons for this, but the reality is that start-ups often struggle to form partnerships with operators that from a commercial perspective may make a lot of sense: these are missed opportunities. Operators must be prepared to act nimbly to integrate new products and services into their core business, collaborate with the ecosystem to provide common interfaces and tools for start-ups, and make it easier to access network assets such as payment platforms while monetising services. For their part, entrepreneurs need to understand and clearly communicate proposed business models and their rationale for partnership with operators, mitigating the tendency to over rely on technical sure footedness.

## Innovation centres in emerging markets – growing, but with a funding gap

Silicon Valley has long been established as a leading centre for innovation. Historically this has centred on the technology sector, but over the last 10 years it has increasingly focussed on mobile due to its pervasiveness as a communications and entertainment technology. This has been accompanied by a virtuous cycle of idea generation attracting investment and talent that spawns further innovation and education, ultimately forming a flourishing self-replicating ecosystem.

Silicon Valley’s track record as an innovation powerhouse is driving policy makers and other ecosystem players to analyse the necessary components for replicating sustainable ecosystems in other regions. Indeed, Europe and parts of the Middle East have seen their own rising tide of mobile start-ups and other SMEs, with centres such as London, Berlin and Tel Aviv attracting increasing attention from local and international entrepreneurs and investors (see Figure 1). While the number of investments in these three centres has been increasing, the most recent source of growth has actually come from emerging market hubs such as Nairobi, Bangalore, Shanghai and Sao Paulo (see Figure 2).

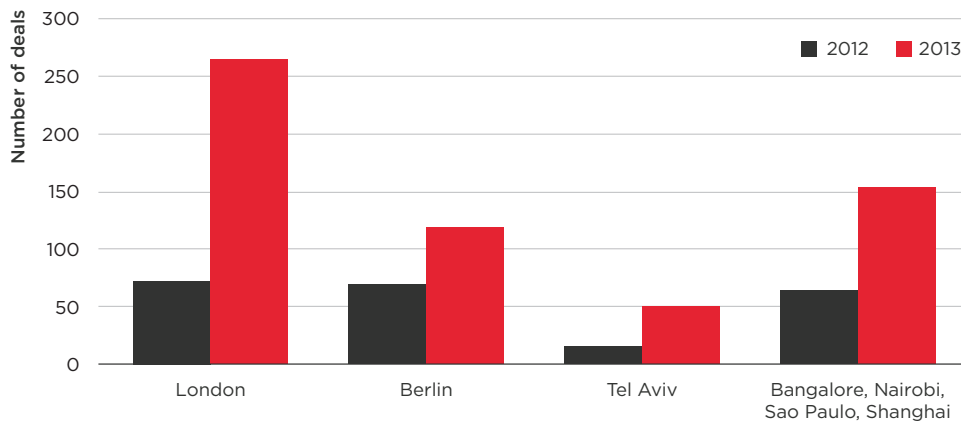


**Figure 1:** Crowd sourced view of start-ups and SMEs in mobile ecosystem<sup>1</sup>

Source: GSMA Intelligence, CrunchBase

(Note: figures are cumulative)

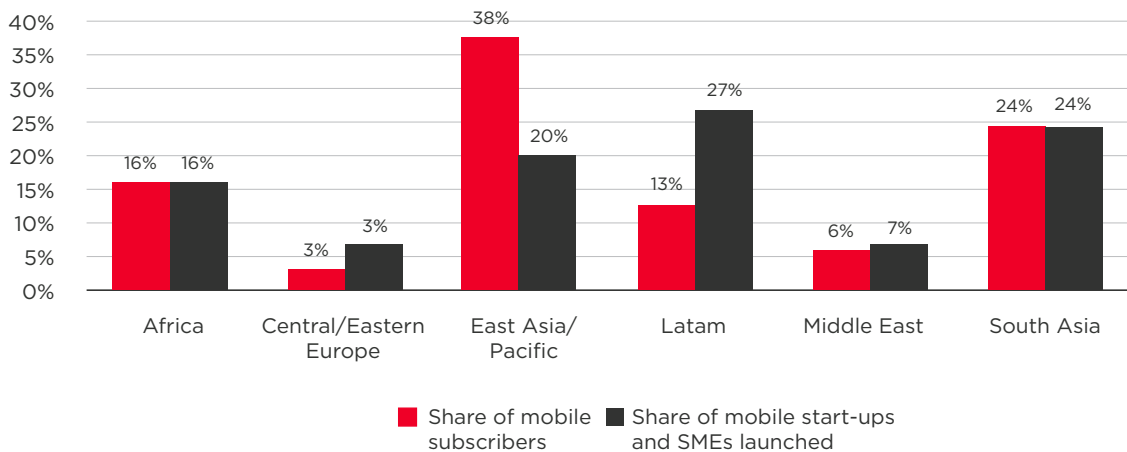
<sup>1</sup> Numbers are based on the crowd sourced CrunchBase database of start-ups and SMEs (firms in the ICT sector that had 500 employees or less as of 2013). As such, this is a sample and not meant to represent the actual number of firms in operation



**Figure 2:** Number of investments made in startup centres (all sectors)<sup>2</sup>

Source: GSMA Intelligence, CB Insights

At a regional level, Asia’s growth has largely been driven by China, itself a product of the rise in smartphone penetration (now just under 40%), digital commerce and social activity. Indeed, a host of Chinese internet firms have tapped US capital markets in recent months, including Twitter-like Weibo. The rise in start-ups and SMEs is also notable in Latin America which has attracted a large amount of investment (particularly from Europe) relative to the size of its mobile market (see Figure 3). South Asia and Africa have also grown in the space, with key centres such as Bangalore, Colombo (see [Sri Lanka country overview](#)) and Nairobi becoming increasingly established (see [Digital entrepreneurship in Kenya](#)).



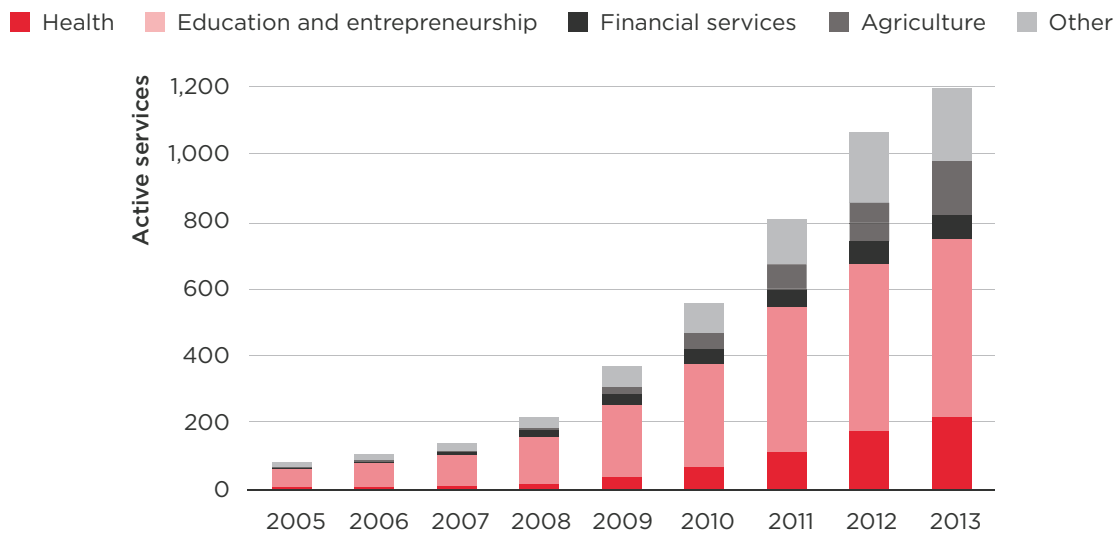
**Figure 3:** ICT start-ups and SMEs distribution in relation to mobile subscribers

Source: GSMA Intelligence, CrunchBase

(Note: data is for companies launched between 2005 and 2014 with under 500 employees as of 2013)

<sup>2</sup> Numbers are based on the CB Insights database. This is a sample and not meant to represent the actual number of deals. A majority of investments are in internet, mobile, software, healthcare and green technology. Stages include financing from idea and seed through to expansion

Largely unique to emerging markets, this innovation has also been a major contributing factor to an increase in mobile-enabled services in verticals that aim to fill access gaps for mid and low income populations, with banking, health care, energy access and increasingly employment targeted (see Figure 4). In their infancy back in 2006–07, the majority of these services relied on SMS and voice channels, mostly on basic handsets with slow or non-existent data capabilities. However, in recent years this has shifted to take account of the rising use of mobile data (on smartphones and feature phones), with around 40-50% of services now designed to be used on apps or the mobile internet (see [Mobile platform wars](#)).



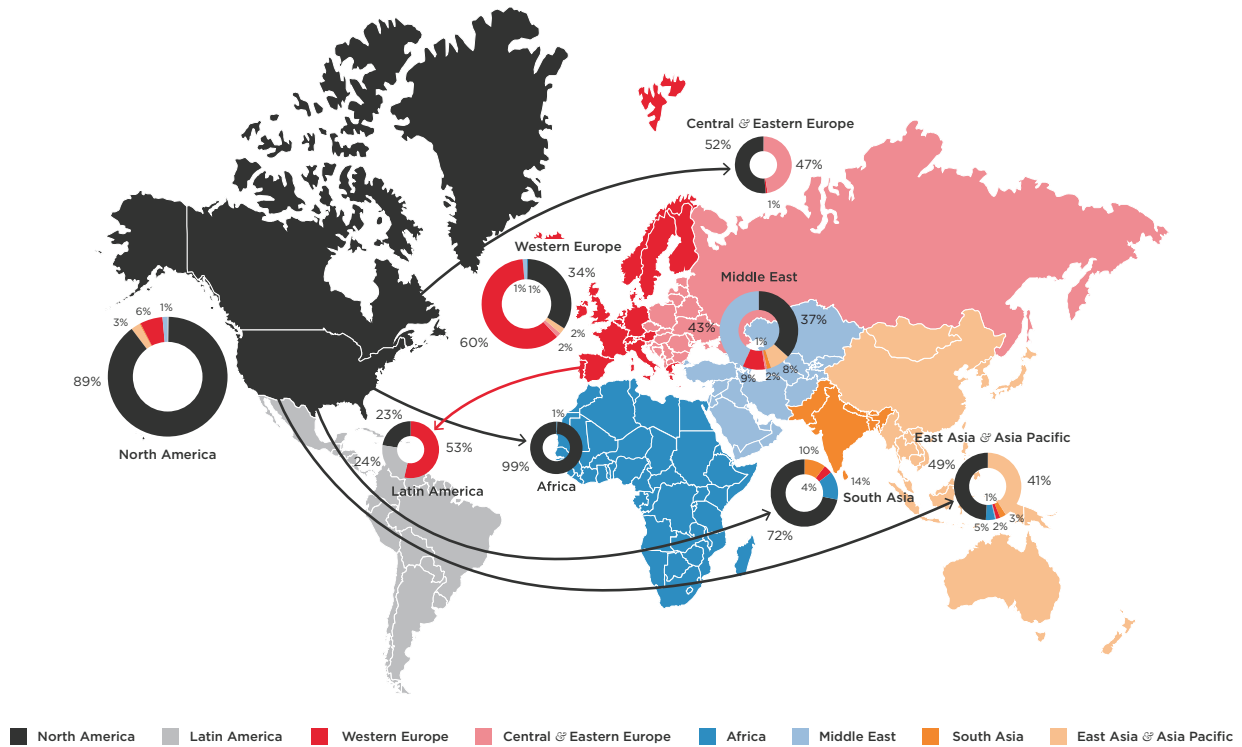
**Figure 4:** Mobile-enabled services by vertical  
 Source: GSMA Mobile for Development Impact

(Note: values are cumulative)

This nexus between mobile, the internet and development holds both social and commercial benefits. It has attracted the interest and participation of a range of capital providers, including donors and investors, as well as hubs and incubators to nurture entrepreneurship. However, while interest and indeed hard investments have been made to a certain extent, there are relatively few examples of innovation ecosystems in emerging markets that have become self-sustaining.

Part of the reason for this is in the nature of capital flows. Silicon Valley is, of course, the largest innovation centre in the world and has attracted the most investment. In the 1990s and early 2000s, most of this came from domestic providers and, indeed, most still does. However, in recent years it has increasingly drawn in foreign investors, notably from Europe and East Asia (see Figure 5). For its part, Europe has also attracted investment in ICT from abroad, with most from the US but also from Asia. The pattern is different in emerging markets, where the majority of investment generally comes from *outside* a given region. While this imbalance has started to rectify in more advanced economies in Asia and Latin America, it remains pronounced in lesser developed regions such as South Asia and Africa. Here, many domestic investors choose to place their capital outside of their own territory, in some cases creating a net *outflow* of capital (see Figure 5).

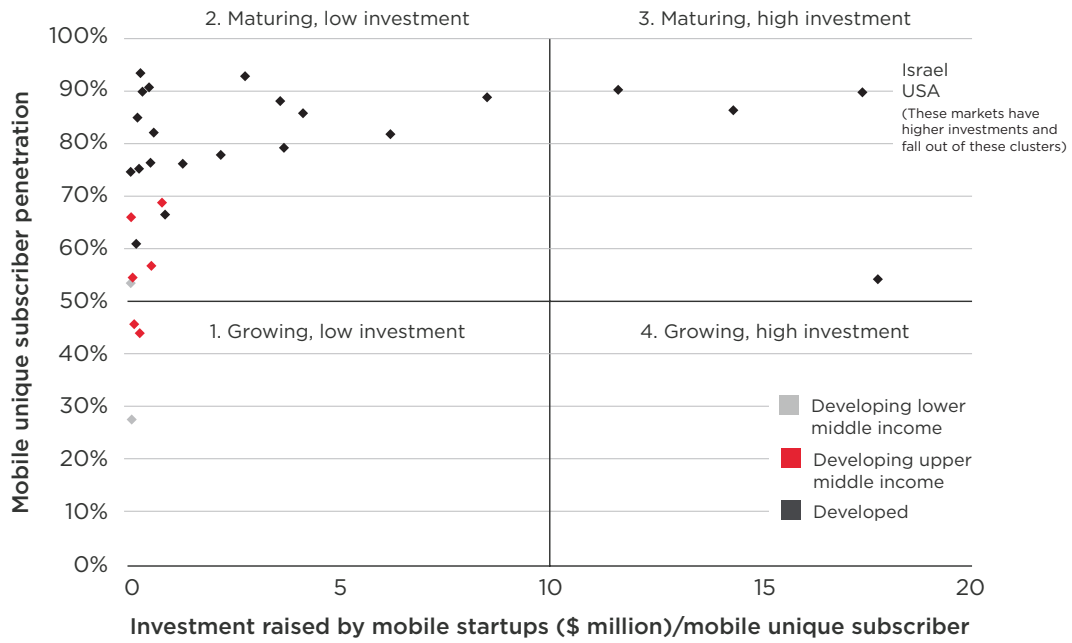




**Figure 5: Where do ICT investors put their money<sup>3</sup>?**  
 Source: GSMA Intelligence, CrunchBase

Perhaps more important is the general lack of capital made available to early stage entrepreneurs – where the largest number of firms sit. The result is a funding gap for firms that have not yet reached the growth stage. Given that we are interested in analysing barriers to investment in ICT, it is helpful to segment countries based on their mobile market penetration. Out of this come three groups, differentiated on their level of advancement (see Figure 6). It is clear from this that there are a few countries with advanced mobile markets that have attracted a proportionately large amount of investment (the US most prominent, but also markets such as Israel). The remainder, including those emerging markets in the sample, are clustered at a lower level of investment. While there is not a *linear* correlation between the mobile market maturity and the level of ICT investment a country attracts, it is clear that more advanced mobile markets are more likely to attract investment, underlining the catalytic effect of rising mobile ownership (wealth and GDP growth is another driver).

<sup>3</sup> Pie charts represent the share of ICT investment into a region based on geographic source. Investment data is for 2005 – 2013. This depicts only a sample of funding, so will not capture all funding paths between regions and is therefore not meant to be representative for total investment in ICT

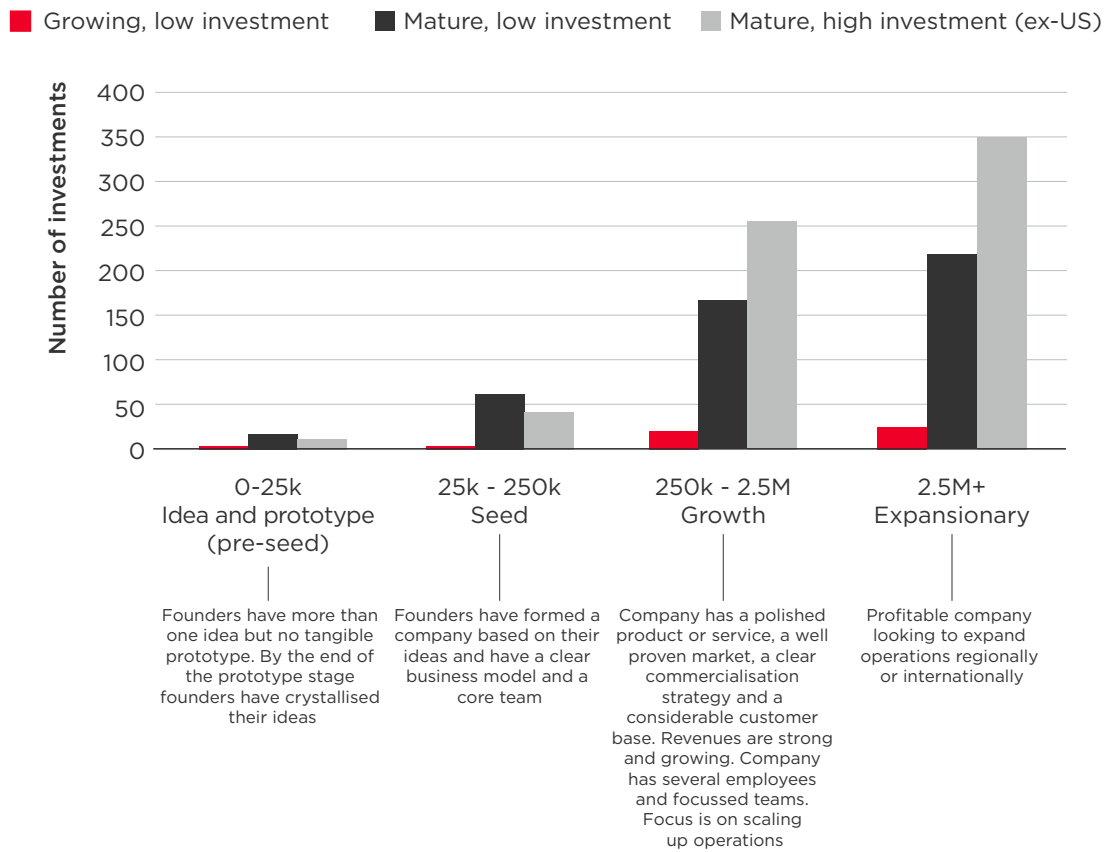


**Figure 6:** ICT investments relative to maturity of mobile market, by country

Source: GSMA Intelligence, CrunchBase

(Note: Investment data is for 2011-2013, subscriber data is for 2013. 'Growing' and 'maturing' refers to mobile subscriber penetration)

Applying these clusters to the funding cycle from pre-seed through to expansion capital and initial public offerings (IPOs), the majority of investment commitments (in value and volume) raised in all groups is over \$250,000, in particular above \$100,000, (i.e. in the growth and expansionary stage of a company, see Figure 7). Under 15% of investments fall into the pre-seed and seed stage (below \$250,000) for all three clusters.



**Figure 7:** Number of investments for each cluster (2005-13)

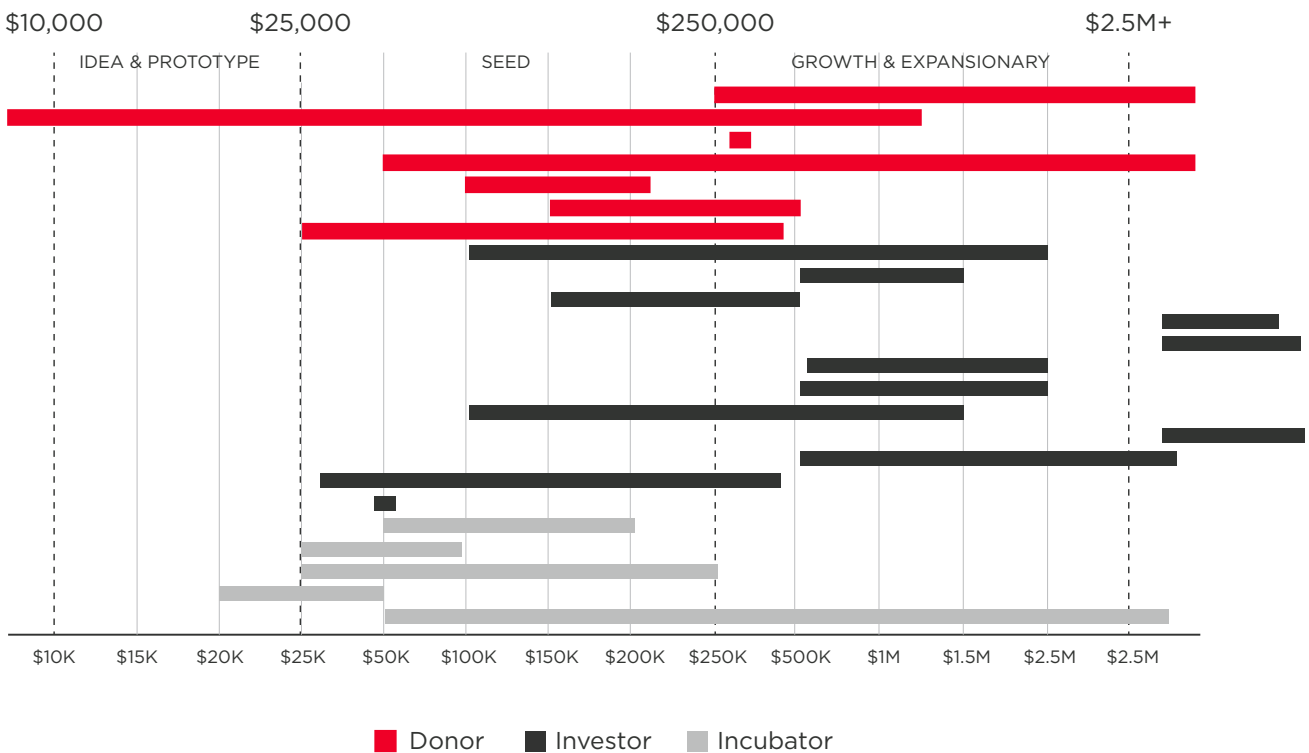
Source: GSMA Intelligence, CrunchBase

### Why is this a problem?

It is true that high failure rates (often 90% or above) are a reality in venture capital funding. However, this is less of a problem for established innovation ecosystems because a higher number of ventures mean a higher number of success stories. Furthermore, a signalling effect occurs where start-ups in more mature centres seek higher investment values at earlier stages of the lifecycle to more closely align with the ranges investors seek to put capital in. Unfortunately, this is not the case in more nascent ecosystems, where the risk attitudes towards earlier stage companies are not compensated for by a surplus of investors. The implication is that much of the innovation being developed in budding centres in emerging markets risks being left unrealised, a potentially large opportunity cost from a socio-economic and, over the medium to long term, commercial return point of view. The good news is that there is recognition of this, with investors, entrepreneurs and the mobile operators all seeking to play a role to overcome the funding challenge. Investor risk attitudes comprise a big part of this, and we explore these in the next section.

## Investor positioning, attitudes and risk perceptions

While the funding gap is a general story, what are the differences between different types of investors? We set out to answer this by conducting a survey of capital providers with active investments in ICT in emerging markets (many are also active in mature countries). These included organisations from donors to impact investors to VCs to incubators and accelerators (see Table 1 for descriptions). There appears to be a general range of investment for each category of investor, with donors and incubators gravitating more to the late seed stage, VCs and impact investors positioning more towards growth and expansionary phases (see Figure 8). This reflects the motivations and risk appetites for these groups, with donors often more willing to back ventures at an earlier stage of development given that, in many cases, their approach is not geared to hit a target financial return and so can tolerate a higher risk of failure (in contrast to for profit investors). Regardless, the striking observation is the open space at the early stage, particularly under \$100,000. To some extent, the funding gap at the early stage does not account for some types of funding from informal sources like friends and family, angel investors or even credit lines from retail banks, but these are not likely sufficient enough to make up a short fall between demand (from entrepreneurs) and supply (from investors).



**Figure 8:** Investments ranges for donors, investors and incubators (emerging markets)

Source: GSMA Mobile for Development Impact survey

(Note: lines denote individual organisation. Respondents are anonymised, but are labelled by category)

Investor type	Sub category	Definition	Examples of active organisations*
Donor		Donors provide financial aid to support the economic, environmental, social, and political development of developing countries. Most will offer on the ground support, mentorship and guidance to investees	<a href="#">DFID</a> <a href="#">USAID</a>
Investors	Impact investor	Impact investors invest into companies, organizations, and funds with the intention to generate a social and/or environmental impact alongside a financial return. Some also offer mentorship and guidance to investees	<a href="#">Omidyar Network</a> <a href="#">Big Society Capital</a> <a href="#">Acumen</a>
	Venture capitalist/private equity	Provide capital to high-potential, high risk start-up companies (or later stage/follow up rounds) with the interest of generating a return. Some also offer mentorship and guidance to investees	<a href="#">Sequoia Capital</a> <a href="#">Accel Partners</a> <a href="#">Greylock Partners</a>
Incubator/accelerator		Incubators focus on start-ups and early-stage companies. Some provide or facilitate acquisition of seed funding, most offer business assistance and provide office space, often for multiple entrepreneurs at once	<a href="#">iHub</a> <a href="#">Y Combinator</a> <a href="#">500 Startups</a>

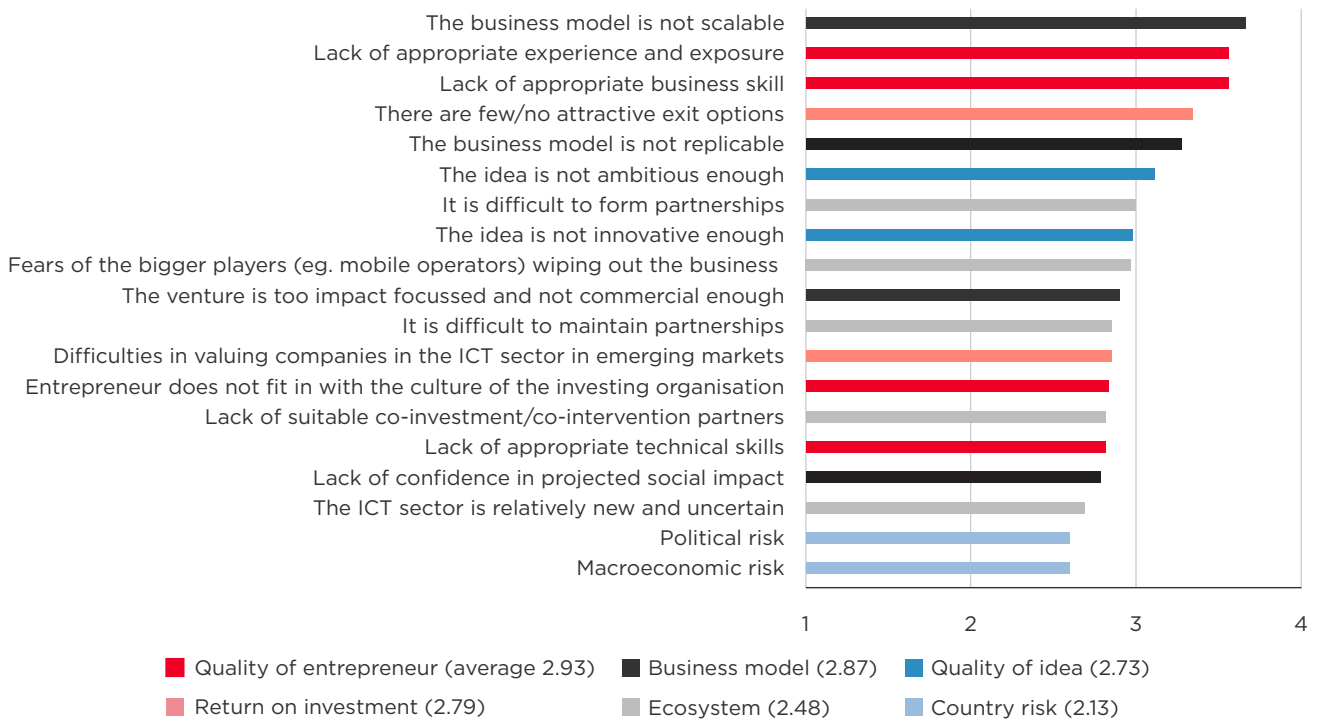
**Table 1:** Types of investors

Source: GSMA Intelligence

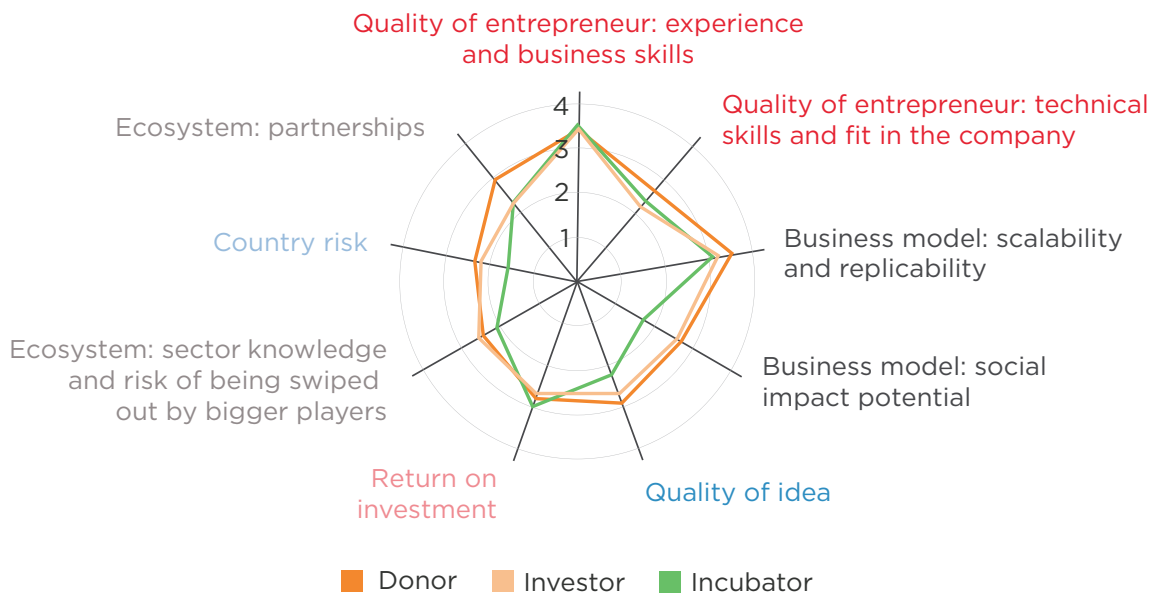
(Note: these are examples of organisations within a category, and not meant to represent participants in our survey. We have anonymised the respondent organisations)

To better understand what has been driving this funding gap we asked investors to identify the main challenges they faced when investing in ICT in emerging markets. These were grouped into different risk categories: quality of entrepreneur, quality of idea, business model, return on investment, country risk and ecosystem.

The top challenges identified by respondent organisations were i) lack of compelling business models to monetise technical innovation, and ii) lack of business skills and experience of the entrepreneur (see Figure 9). While investor attitudes from the survey are generalised across all stages of funding, we believe these two top challenges are heightened concerns for funding earlier stage ventures (especially below \$100,000). Country risks were identified as the least relevant risk factors, perhaps surprising given that emerging markets are often given a risk premium to compensate for the risk of unstable governments and currency volatility. Interestingly, while funding ranges differ, there is not much variation in the risk perceptions among different investor groups in the survey (see Figure 10).



**Figure 9: Risk perceptions of investors active in ICT**  
 Source: GSMA Mobile for Development Impact survey  
 (Note: 1 = not a relevant risk, 4 = highly relevant risk)



**Figure 10: Main challenges to investments for each investor**  
 Source: GSMA Mobile for Development Impact survey  
 (Note: 1 = not relevant, 4 = highly relevant)

We have previously noted how in emerging markets investment in ICT has so far mostly come from international providers. However, it is important to develop local innovations and address challenges that are typical to the local context. Local investors are often the best positioned to help catalyse an enabling environment of skills and education in addition to providing investment capital, which can act as a complement to investment and mentorship from international donors and investors. To create an entrepreneurship environment and a community of entrepreneurs, it is necessary to focus on areas such as education, especially to develop business skills so that entrepreneurs are not only tech focused, but are able to translate an idea in a true business model and manage to pitch it in the right way to investors, so that potential does not go unrealised.

## A complementary role for mobile operators?

We have previously seen that countries with lower mobile penetration and income levels generally attract less investment in ICT entrepreneurs than more advanced economies. This raises a chicken and egg issue: investors can hold off until more compelling business models present themselves, but that is only likely to happen with their own involvement in shaping enabling environments for innovation to flourish. This is the root of our argument for behavioural changes from entrepreneurs *and* investors to minimise the risk that mobile innovation at an early stage goes unrealised and entrepreneurs do not realise their full potential.

This is not to confine the debate to these two actors. Mobile operators have largely flown under the radar in innovation, but this is beginning to change, with emerging markets a key frontier. Market dynamics aside, operators face common challenges in retaining customer loyalty and developing new revenue streams as growth from traditional services, such as voice and SMS, slows. Fostering entrepreneurship can lead to new business opportunities. Many operators are already experimenting with innovative services through direct involvement in innovation hubs, investing in or partnering with start-ups, exposing assets such as service delivery platforms and (albeit to a lesser extent) promoting start-up competitions. In addition to this, operators can integrate new products and services into their core business, collaborate with the ecosystem to provide common APIs, interfaces and tools for start-ups, and make it easier to access mobile assets such as payment platforms.

We profile some of the mobile operator led initiatives here.

### 1. Service delivery platforms

Orange, Telefónica and all three operators in China<sup>4</sup> have developed service delivery platforms to share their technical infrastructure throughout the different regions where they operate and to attract local developers. Operators can expose APIs and other services through such platforms (for example a common API for SMS delivery), to better attract developers that otherwise would have little incentive to embed core network services into their apps. This presents a key opportunity for operators in the developing world, where Apple and Google have yet to establish the sticky duopoly (of consumers and developers) that has become prevalent in the US, Europe and other mature markets.

<sup>4</sup> China Mobile, China Telecom and China Unicom



## **Special feature:** In conversation with Aurélien Duval-Delort Services Enablement (APIs) & Business Development, AMEA, Orange

Orange has long developed and optimised a line of solutions for providing services in the AMEA region. We have recently initiated a new way of working with entrepreneurs that relies heavily on sharing: we will gradually provide open access to our APIs on [www.orangepartner.com](http://www.orangepartner.com). The first APIs that will be exposed are core assets such as SMS, USSD, Payment, Account management, all exposed using GSMA OneAPI standards.

These APIs run on Orange SDP (Service Delivery Platform), a unique platform that provides a single entry point to all Orange AMEA countries (16 by end 2014). Developers will access our API catalogue on Orange Partner website, where they can also access APIs of France and Europe Orange countries.

In addition to API production and exposure, Orange wants to reach out to all developers in the region, be it in Orange countries or in English-speaking countries where we are less present. The Orange Partner program includes Hackathons, API online challenges, conferences and new incubators such as Orange Fab. Our objective is to contribute to local ecosystems by stimulating innovation, helping start-ups launch and attract funding from venture capitalists. The most recent event is the West Africa API Challenge launched in May in Senegal, Mali and Ivory Coast, which allows local SMEs to access our APIs. Winners get financial incentives as well as pan-African partnerships opportunities.

Orange has clear objectives in AMEA with its API program, however we are open to partnerships with other operators as we believe Telco APIs programs will only succeed in the long term if developers working with us can reach a very large footprint with a single API integration, as they do with OTT developer portals.

## 2. Supporting incubators and accelerators

Operators are establishing an active presence in the incubation space, either by partnering with others or forming their own incubator. Operators representing 35% of total global connections now have a presence in Silicon Valley, with a focus to varying degrees on R&D, scouting, strategic investment and incubation; examples include SK Planet, Telefonica Digital Ventures, Orange Silicon Valley Labs and Fab, Swisscom Outpost, Singtel Digital Lifelabs and Ventures, Telstra Ventures, Verizon Innovation Center, AT&T Foundry, NTT Innovation Institute, KDDI Strategic Ventures, Deutsche Telekom Innovation and Partnering Center and Vodafone Xone and Foundation.

There are also examples of operators setting up their own incubators. Telefónica created its own incubator, Wayra, which was launched in Colombia in 2011 and now operates in 11 countries across Latin America and Europe. Projects that are accepted for a 6 month incubation are provided with funding, mentorship and a working space. Ooredoo has set up incubators in different regions where it operates, including Algeria, Indonesia, Tunisia and most recently Myanmar.

## **Special feature:** In conversation with Julian Gorman Director Digital Services, Myanmar, Ooredoo

In Myanmar, Ooredoo has just launched the Ideabox program to create an ecosystem of tech start-ups and innovation through an incubator. The program is also about creating a community, not just start-ups. Ooredoo provides seed funding, a working space and helps improve the business model to make entrepreneurs more attractive and help them secure additional funding from external investors. The amount of funding provided will help the entrepreneurs work full time on the start-up for four to six months. For now, four to six entrepreneurs will be selected; based on the quality this could increase in the future.

Ooredoo has formed different partnerships; from traditional ones such as Microsoft, Oracle, Amazon, to non-traditional ones such as Red Bull. There has also been contact with donors and NGOs. The difficulty is that NGOs are often reluctant to engage operators and are often slow to mobilise when opportunities present themselves. Ooredoo Myanmar is working hard to challenge this and has formed positive relationships with donors and NGOs to help start the community to help itself.

Ideabox is a bright venture that will see shared learning that will benefit start-up operations in both Myanmar and Indonesia. By sharing learning and experience, Ooredoo in Southeast Asia, will deliver more than is possible if individual markets work independently. This collaboration will produce better results in terms of quantifying start-up success via measurement of the launch and funding of new ventures.

Other examples of operators which have formed partnerships with other players to develop an entrepreneurial ecosystem in their region through incubators include Orange, MTN and Millicom. In Senegal, Orange partnered with the government of Senegal and the World Bank to set up an incubator in Dakar, CTIC. Following this success, Orange is planning to deploy new incubators in Niger, Mali, and Tunisia. MTN and Millicom have partnered with Rocket Internet to develop start-ups in Africa through the Africa Internet Holding (AIH). MTN and Rocket Internet have also partnered to form the Middle East Internet Holding (MEIH), which will focus on e-commerce in the Middle East. MTN expects to contribute about \$400 million into AIH and MEIH over the next two to four years, subject to regulatory approval.

### **3. Launching startup competitions**

Operators have also launched start-up competitions, such as Orange and Safaricom. The Orange African Social Venture Prize was launched in 2001 and awards a cash grant of up to €25,000 and a six month mentorship to the first three winners. Safaricom's App Wiz Challenge was designed to help developers to form start-ups and partnerships; the success of this challenge has evolved in the creation of the Safaricom Incubation challenge, where participants will undergo training and mentorship throughout the three months incubation period. The challenge focuses on the following categories: education, financial inclusion, games and entertainment, public sector, productivity and utilities, agriculture and health.

All of these plays are indicative of operators utilising key assets – particularly network and brand – to establish direct services or to grow the innovation in the wider ICT sector. The challenge is to make this scalable, proactive and a part of 'business as usual'. For operators, this places emphasis on being able to act nimbly to integrate new products and services into their core business, collaborating with the ecosystem to provide common interfaces and tools for start-ups, and make it easier to access network assets such as payment platforms.

## Wider view

We have talked about what changes in entrepreneur, investor and operator behaviour could help in realising more of the early stage ICT innovation. However, looking through a more holistic lens it is important to consider other factors such as education, the role of corporations, and indeed that of government in developing entrepreneurial ecosystems. The involvement of this latter group can occur directly through investment or fiscal incentives, or indirectly by co-financing with the private sector. In a recent survey carried out by the Global Impact Investing Network (GIIN) and J.P. Morgan, impact investors indicated that the most useful government support would be to implement policies that improve the risk and return profiles of investments rather than directly participate in investments<sup>5</sup>.

Success stories like Silicon Valley and Israel have, at least in part, been helped by pro-investment policy environments. For example, in California, until recently, the state offered tax deductions that allowed entrepreneurs and investors to exclude 50% of any gain on sales of stocks coming from qualified small businesses in the state, which reduced capital gains tax rates by half – if not an impetus for starting a business, it is at least one for retaining it in that jurisdiction. In addition, the Small Business Investment Company (SBIC) Act 1958 guaranteed that for every dollar a bank or financial institution invested in a new company, the U.S. government would invest three (up to \$300,000). So, for every dollar that a fund invested, the investee would have four dollars available. The government also played a role investing in universities (Santa Clara and Stanford being good examples) and supporting the development of new technologies. In Israel during the 1990s the government encouraged investments of foreign and domestic capital by providing tax incentives. In addition, it boosted its early stage venture capital industry with its \$100 million Yozma fund established in 1993 to support foreign investors backing Israeli start-ups.

The policy environment is equally important in emerging markets. In Kenya, the government has partnered with a local incubator, Nailab, to launch a \$1.6 million incubation program to support tech start-ups. The program provides support in the form of space, mentorship, business coaching, and industry connections with a focus not only on start-ups in Nairobi, but in all major Kenyan cities. The aim is to increase the technical and business skills of entrepreneurs, provide access to finance and facilities, to better link entrepreneurs with both the academic community and industry and to accelerate the commercialisation of innovations. However, Kenya ranks in the bottom 30% of countries on the ease of doing business and starting a business rankings. The same is true for India (Israel and the US rank in the top 20%). Emerging markets may be at an earlier stage of development, but the impetus and impact from public policy on accelerating innovation is no different and should be seen as a necessary complement to private funding.

<sup>5</sup> *Spotlight on the Market: The Impact Investor Survey*, Global Impact Investing Network, 2014

## About GSMA Intelligence

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