

Growing the UK tech sector

From start-ups to growth -
creating the next wave of world
class technology companies

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UK moving beyond tech: the start-up mindset

Why we need to move beyond a culture of start-ups

The UK is currently buzzing with tech activity. From London to Newcastle, the entrepreneurial spirit is thriving and a growing number of innovative, aspiring and ambitious companies are laying down roots, encouraged by supportive government policies and a growing ecosystem.

This is an exciting time, with solid foundations in place in the UK from which a vibrant, technology sector could emerge, punctuated by world-class, industry-defining stars.

But this can only be achieved with the right nurturing as the new kids on the block become teenagers and want to leave home.

Or, to put it another way, to make sure these dynamic new companies grow up into productive members of the UK economy that attract talent and

investment and become significant employers, they need a framework of external support akin to what is currently available for start-ups.

A combination of public and private support for these bright young things is essential to give them the best chance of making it through to the all-important growth phase.

There are signs that this is starting to happen. Last year, the Government announced a programme to help 50 high-growth technology companies to scale rapidly and make the UK their long term home.

Companies in the Future Fifty have access to mentoring, funding and advice, depending on need, from the public and private sector to allow them to overcome business barriers, create jobs and deliver economic benefit to the UK.

This is a great start and has all the ingredients for success. Going forward, the Government must continue to work together with private companies to create an environment for start-ups to progress.



Beyond start-ups

We must also, as a country, move beyond a preoccupation with start-ups, influenced by a media obsession with sensational growth stories of the likes of Instagram and Snapchat and exaggerated by investor enthusiasm for an exciting concept.

This has skewed the focus of many tech companies to the wrong measures of success.

As a result, I believe that we are cultivating a sector that is overly focused on creating innovative products and achieving external funding. But a good idea or clever product isn't the same as a good, long-term, viable business.

Start-up tech businesses are generally well-supported in the UK, but those seeking to grow their business beyond the start-up phase face significant challenges.

The challenge is well summarised by the CEO of a UK tech SME in a recent survey by researchers GfK¹:

He said: "There's lots of angel investing, but once a seedling company bursts through there is no one to catch and propel it into a world-class company. I am forced to look towards the US and the Far East."

To be clear: I firmly support the UK's focus of fostering UK ideas and technology and we must continue to support UK innovators and entrepreneurs.

But our ambition as a country and as a sector must also aim higher if we are going to become a serious contender in the tech space, competing with of sophisticated tech centres, such as Israel and the US North East.

That will be a key economic indicator in the next few years and is clearly the UK Government's ambition.



¹ <http://www.gfk.com/uk/news-and-events/press-room/press-releases/Pages/Tech-City-growth-stunted-by-talent-shortage-and-lack-of-access-to-capital.aspx>

The value of growth companies



The common perception seems to be that most of the UK's value is generated by our big, FTSE 100-type companies. But the truth is that the country's small-to-medium enterprises (SMEs) contribute almost half of the UK's GDP and represent 99.9 per cent of our businesses².

Indeed, in 2012 there were 4.8 million private sector SMEs which, combined, provided around 60 per cent of all non-governmental employment in the UK.

But it is the tech SMEs that tend to punch above their weight since they are often able to achieve a global presence without spending significant capital or investing in massive amounts of infrastructure.

Already, the UK's internet economy represents more than 8 per cent of GDP³ (more than the construction, education, health or utilities' sectors

contribute individually) and estimates suggest that this proportion will grow to more than 12 per cent by 2016. More important is that these companies offer the greatest opportunities for significant and sustained growth.

According to Barclays' Online Business Outlook report for 2013, UK internet companies are growing 50 times faster than the rest of the economy⁴.

Whether these phase two tech companies have revenues of £500,000, £5 million or £25 million is irrelevant. What is important is that they have sustainable business models, - revenue, growth, profitability and the opportunity to create employment and a desire and motivation to maintain a significant UK presence. That is what it will take to grow our technology sector and that is what it will take to drive the UK economy going forward.

² <http://www.fsb.org.uk/stats>

³ <http://www.bbc.co.uk/news/business-17405016>

⁴ Barclays' Online Business Outlook 2013 report

Filling a pipe to nowhere

This fact is not lost on our politicians. Hailing the success of London's Tech City, Prime Minister David Cameron said that, "it shows what can happen when we back some of our most innovative and aspiring companies to grow, helping the UK compete and thrive in the global race."⁵

Lord Green, former Minister for Trade and Investment, added: "The UK has a creative and dynamic digital industries' sector that we want to see grow even further and provide a real boost to our economy."⁶

The UK is thought to be home to more than 100,000 specialist software companies, not limited to the City.

Cambridge houses more than 1,500 companies⁷ and at least 12 of these have achieved more than US\$1 billion valuations over the past decade.

Manchester claims that more than 45,000 of its citizens are employed in the ICT sector and Newcastle, not typically associated with technology businesses, boasts somewhere between 30 to 40 tech start-ups.⁸

The trouble is, the status quo is pushing entrepreneurs to 'fill the pipe' with ideas without providing the proper support, resources or environment to then turn those ideas into commercial propositions.



⁵ <https://www.gov.uk/government/news/joanna-shields-to-lead-tech-city-investment-organisation--2>

⁶ <https://www.gov.uk/government/news/joanna-shields-to-lead-tech-city-investment-organisation--2>

⁷ UKTI

⁸ <http://www.guardian.co.uk/technology/blog/2013/may/01/tech-city-funding-uk-startups>

Learning from the masters



A dearth of talent and investment in the UK seems to be two of the biggest challenges for companies looking to move into phase two of their growth cycle and looking to scale up.

Almost half (45 per cent) of London's tech business leaders said that their biggest challenge to date was the shortage of skilled workers in a 2013 report by GfK⁹, while more than three quarters said that they could grow their business faster if there were more skilled people available.

The US and Israel don't suffer this problem to the same extent. These markets are generally considered top tier hubs for tech talent, innovation and commercialisation and if we are to compete with them, we need to adopt some of their best attributes.

One of these is fostering a culture of entrepreneurship where students and graduates are encouraged to consider starting up their own ventures as a viable career choice; an idea that is only now starting to gain traction in the UK.

Our competitors have also focused on enhancing the level of science and technology being taught at schools all the way from primary through to tertiary levels. Israel's schools have long focused on science and technology as key differentiators, with innovation regarded by successive Israeli governments as key to the country's survival.

As a result, both the US North East and Israel have become highly attractive markets for fostering and retaining technology talent.

I firmly believe that the UK education system can (and does) compete with the likes of the US North East and Israel, but we seem to have significant challenges turning 'book smarts' into 'practical wisdom' that is broadly applicable in the business environment.

A survey by Silicon Valley Bank of 750 US and 125 UK tech start-ups last year found that 77% of the UK firms interviewed were having problems finding employees with both STEM (science, technology, engineering and maths) and general business skills¹⁰.

For every one world class developer, engineer or sales person that chooses to live and work in the UK, Boston or Israel has 10 or 20.

Historically in the UK there have not been enough people taking these subjects at school and university to support a new wave of technology companies and the growth of UK PLC. Those that have often ended up in traditional industries and big corporates.

While the recession has hurt employment prospects generally it has had an unintended benefit for the technology sector. Fewer jobs in the corporate world combined with an increasing social acceptance of an entrepreneurial career means that over the past few years we are seeing greater numbers of graduates choosing to join fledgling tech businesses and hopefully this trend will continue. The demand is certainly there. A report released by KPMG and Markit last summer shows that job hiring trends in the UK tech sector have consistently outpaced those seen across the UK private sector as a whole particularly since the 2008 financial crisis.

⁹ <http://www.gfk.com/uk/news-and-events/press-room/press-releases/pages/tech-city-growth-stunted-by-talent-shortage-and-lack-of-access-to-capital.aspx>

¹⁰ <http://www.pehub.com/2013/04/23/study-finds-87-of-tech-startups-hiring-this-year/>

Virtuous circle - Success also breeds success

The US boasts thousands of analysts who are focused on the tech sector; there are hundreds of analysts watching Israel's tech sector; barely a handful monitor the sector in the UK.

The upshot of this is that the US and Israeli markets are now well-understood tech markets where investors can easily compare organisations and where exit strategies are tested and understood.

As a result, phase two organisations in these countries tend to have an easier time attracting investors and building their capabilities than those in the UK.

The UK is not lacking strong success stories in the tech sector that, while maybe not reaching household-name status, clearly demonstrate UK PLC is capable of nurturing organisations from start-up through to global market leader.

ARM is a classic example. The biggest UK tech success few people on the street will ever have heard of.

Founded in Cambridge in 1990 as a spin-off of the then-famous Acorn Computers, the company is primarily focused on developing and manufacturing semiconductors and processors for mobile devices.

Their products can be found in 95 per cent of the world's smart phones, 80 per cent of digital cameras and 35 per cent of all electronic devices¹¹.

The company employs more than 2,300 people, the vast majority of whom are in the UK, and generated more than £575 million in 2012 alone.

This should be our ambition in the short-to-medium-term: to foster a raft of world-class multi-million pound tech companies with the support and potential to grow into multi-billion pound entities in the future.

An increased number of success stories in this space will inspire a greater number of ambitious UK graduates to pursue

a career in tech, creating the depth of talent on these shores that we see in Israel and the US, as well as attracting talent from abroad.

Time for action

If we want to build a truly sustainable, profitable and viable technology sector in the UK, we will need to see much more action from both the public and the private sectors.

As I said, the Future Fifty programme shows recognition of the urgent need to build a pipeline of tech IPOs and showcase the UK as an attractive centre for digital business.

In addition, we need a broad range of policies aiming to encourage increased employment, talent acquisition, international expansion and tax breaks allowing the ability to retain cash at critical points through the growth phase.

This is a complex task and will take coordination and collaboration between multiple departments at both the national and local level to succeed.

For this process to work effectively and efficiently, I believe there needs to be a single point of responsibility within government: a tech tsar.

The tech tsar would work closely with the government chief scientific advisor (whose focus leans more towards natural science and research) and between the two, make sure that "UK science and engineering enjoy a leading place on the world stage¹²."

We already have some great advocates in Mike Bracken (with Government Digital Services) and Liam Maxwell (the UK government's CTO), while Joanna Shields does a commendable job as our ambassador for digital industries and CEO of the Tech City Investment Organisation.

But I believe we could do more to lend leadership to the high-growth tech sector.



¹¹ <http://arm.com/about/company-profile/index.php>

¹² <http://www.bis.gov.uk/go-science/chief-scientific-adviser>

Private sector support



The private sector has a more significant role to play, from investors looking beyond consumer-focused technologies to allocate their capital to businesses being commercially savvy about supporting embryonic UK tech products and services rather than buying off-the-shelf solutions.

In fact, UK companies may just find that by entering into deeper partnerships with the existing members of UK PLC they may be able to tap into new growth opportunities.

Many organisations including Barclays, Tesco, Unilever, Marks & Spencer, Qualcomm, Johnson + Johnson, Heinz and BMW are supporting early stage technology companies through investments and partnerships.

Similarly, some of the UK's more established technology enterprises may find opportunity to either partner or joint venture with one or more growth companies to develop a new application for existing products or to repurpose their existing products, services and business models laterally into adjacent markets.

Ultimately, all of this activity provides greater impetus for innovation and ideas to nurture through to maturity.

No time to waste

One other lesson that we can learn from the experiences of Israel and the US North East region is that building a supportive environment can take years, if not decades.

Building a pool of talent does not happen overnight: policy takes time to draft, pass and implement; and creating a history of success requires today's start-ups to successfully emerge onto the world stage.

Indeed, based on our current trajectory and that of our closest national competitors I would suggest that we will need to redouble our efforts if we hope to make up some of the time we have lost.

But investment and effort alone will not fully make up for lost ground.

That will require the private sector to become more comfortable with using products and services from these companies, understanding that they will have to help the development of the product or better yet see how corporate venturing with these early stage companies may help to secure their own long-term survival.

With the right mix of supportive policy, investment, corporate venturing and talent, I believe that the UK can within the next decade solidify its place as a world leading technology centre.



Key takeaways



If you take anything away from this report, I hope it is that we should – indeed must – provide additional support to UK tech companies in their transition to the important ‘growth’ phase with a mix of financial and non-financial support.

Specifically:

- 1.** Appoint a ‘tech tsar’; a single point of responsibility within UK government for the high-growth tech sector
- 2.** Introduce long-term public policies that encourage increased employment, talent acquisition and the retention of cash at critical points in the growth phase
- 3.** Continue to support UK innovators and entrepreneurs expanding into overseas markets
- 4.** Foster a culture of entrepreneurship where students and graduates are encouraged to consider starting up their own ventures as a viable career choice
- 5.** Enhance levels of science, technology, engineering and mathematics (STEM) in the UK curriculum, all the way from primary through to tertiary levels
- 6.** Encourage the private sector to create demand for the UK tech sector’s products and services; or, better yet, explore corporate venturing with phase two tech firms
- 7.** Motivate the business and broadsheet media to tell some of the many success stories from the UK tech sector
- 8.** Make haste. We will need to act quickly and with a collective sense of purpose if we are to make up some of the time we have lost.

Contact us to find out more

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