

In Perspective

East London Tech City: Ideas Without a Strategy?

Max Nathan

London School of Economics and Political Science and LSE Cities, UK

Abstract

This paper examines the Coalition Government's 'Tech City' ambitions for London. The Government wants to support the nascent tech cluster in East London, encourage inward investment, and develop the post-2012 Olympic Park into a high-tech hub. After examining the initiative in more detail, the paper moves on to discuss why, and how, policy should support the development of high-tech industries in East London. It draws on location and cluster theory, the experience of initiatives to support high-tech clusters in other countries, and an examination of London's existing strengths in order to suggest a realistic and evidence-based way forward.

Keywords

Cities, London, innovation, economic development, science, technology, 2012 Olympics, Olympic Legacy, clusters

Corresponding author: Max Nathan, Department of Geography and Environment, London School of Economics, Houghton St, London, WC2A 2AE, UK. Email: m.a.nathan@lse.ac.uk. Web: personal.lse.ac.uk/nathanm

On 4 November 2010, David Cameron unveiled the Coalition government's plans for 'East London Tech City':

Our ambition is to bring together the creativity and energy of Shoreditch and the incredible possibilities of the Olympic Park to help make East London one of the world's great technology centres.ⁱ

Two months later, a hundred people are sitting in a conference room at the Department for Business, Innovation and Skills, talking about what to do next. 'The first rule of Tech City is, you don't talk about Tech City,' says someone from a Shoreditch startup. Others around me nod their heads. 'What we've got here already is great,' says someone else. 'My message to Government is: don't fuck it up.'

The Tech City proposals still feel like ideas without a strategy. Government wants to support the nascent tech cluster around East London's Old Street; bring in big investors like Facebook and Twitter; and develop the post-2012 Olympic Park into a high-tech hub. It's not easy to see how these elements are best joined up.

Equally, it's not hard to see tensions between them. Will big arrivals threaten existing firms? Could start-ups be pushed out by rising rents? How far will East Londoners benefit? And what's in it for the rest of the UK?

So far, Ministers have mixed hands-on optimism and hands-off caution. 'This is our attempt to generate Silicon Valley in the UK', announced one at the January conference. 'We seem to have a cluster on our hands,' said another. 'Do we need to do anything about it?'

Four months in, it's time to start answering that question. Here are some evidence-based thoughts that I hope will be helpful.

BACKGROUND

Let's review what's on the table. The Prime Minister's November speech contained a number of policy ideas, and there have been several further announcements since then. So far, there are three main elements in the Tech City agenda:

- Attracting big investors to East London, particularly from the US – Vodafone, Google, Facebook and Intel have all expressed interest. On 31 January, Cisco announced it would invest up to \$500m, with two innovation centres in Shoreditch and the Olympic Park, plus five annual prizes to promising SMEs.ⁱⁱ
- Building the existing cluster at 'Silicon Roundabout' – the cluster of start-ups and young firms around Old Street in Shoreditch. A number of ideas are on the table, including a new Entrepreneur Visa, a review of

Intellectual Property rules, and possible reviews of skills, networks and finance issues.

- Contributing to the Olympic Legacy – most notably, the Olympic Legacy Company is considering a post-Games ‘accelerator space’ in the Olympic media centre for start-ups and business development.ⁱⁱⁱ

Tech City has generated a great deal of excitement, and it’s not hard to see why. The proposals fit a number of the Coalition’s strategic imperatives – to foster innovation-led growth in the UK, to support enterprise, and to rebalance the economy.

Tech firms and industry groups have also welcomed the attention, and the chance to sharpen existing policy frameworks and address both market and government failures. And for London’s Mayor and policymakers, Tech City represents both an opportunity to develop one of the capital’s emerging economic strengths – and a further engine of regeneration for East London in the post-Olympics era.

WHY BOTHER?

In theory, there’s no need for a Tech City strategy. Spatial economic models suggest that in a perfect world, firms should sort across space to optimal locations (Glaeser, 2008). In practice this often doesn't happen: space is

limited, firms lack the resources to move, or managers may prefer the most prestigious addresses to the most helpful (Helmets, 2010).

We also know that businesses benefit from co-location. Specifically, cities help the flow of ideas: localised knowledge spillovers enable innovation, especially among knowledge-intensive firms like London's tech sector (Jacobs, 1970). Agglomeration economies help people become more productive: the most recent research suggests that doubling an urban area's employment density raises average labour productivity by around six per cent (Melo et al, 2009).

So productivity payoffs for firms also have wider social returns, helping cities - and UK Plc - develop and grow. In turn, that suggests there may be good reasons to try and push high-tech firms together in urban environments.

WHERE DO WE START?

Policymakers' first instinct may be to reach for the cluster recipe book, as pioneered by Porter (1990). However, cluster policies have been widely criticised, both for lack of definition and lack of effectiveness (Martin and Sunley, 2003). The most recent attack comes from Duranton (2009), who sets out four main problems. First, an area's industrial composition is primarily an outcome of urban economic processes - not a driver. Second, returns to economic diversity seem to be bigger than those of specialisation, points echoed in recent UK research (Overman et al, 2009). Third, clustering

mechanisms are very complex, so it is extremely hard for policymakers to pull the right policy levers. Fourth, returns to cluster programmes tend to be small. They may also be bigger for firms than cities: Christopherson and Clark (2007) argue that in many cases jobs are offshored as firms grow, dampening potential employment gains (and the local tax take).

A more helpful approach may be to go back to economic microfoundations. In other words, we need to better understand the behaviour and needs of London's tech firms, then think about how to configure the city to help those firms evolve and grow. Rather than taking a cluster recipe from elsewhere, this means working with the ingredients London already has.

This dynamic approach also implies that rather than replicating clusters' surface features, we need to identify the underlying processes that have helped their firms grow. In a recent international study, Bresnahan and Gambardella (2004) identify several of these: developing skilled workers and managers, assisting firm formation and expansion, making global market connections, exploiting diasporas and 'connection-led growth', and ensuring product complementarity. In turn, we need to plug these into robust models of innovation-led urban growth (Storper, 2011).

LONDON'S TECHNOLOGY 'ECOSYSTEM'

How does the London 'system' score? The technology industry tends to cluster locally, both in eastern neighbourhoods (with Silicon Roundabout the

epicentre) and west of the capital (Microsoft, Oracle and others). Yet firms' markets and supplier relationships are often global, and some important functions like customer services are often off-shored. So how does the city fit in? Greater London's tech businesses are largely service-sector, and benefit from the matching, sharing and learning economies that big cities offer.

These effects kick in at different scales. The capital is a major producer of skilled labour, and as a world city offers excellent connections into world markets. The capital's cosmopolitan milieu and diasporas also help, with culturally diverse firms more likely to innovate (Nathan and Lee, 2011). (On management capacity, however, UK firms generally seem to be poor performers (Van Reenen, 2011).)

Big, economically diverse cities like London also act as nurseries for start-ups – offering a wider choice of people, suppliers and finance (Duranton and Puga, 2001). Tech investors benefit from a critical mass of business opportunities, as competition for cash pushes out poor performers and raises quality (Reed, 2010).

This augurs well for firm formation: London already has the highest rate of start-ups in the UK, with migrant entrepreneurs playing an important role (Nathan and Lee, *ibid.*). London's tech firms also show signs of forging niches in the product space, majoring on social media applications that draw on other parts of the creative economy. The Coalition's moves on open data will also help generate future business opportunities.

At neighbourhood level, meanwhile, East London offers 'soft infrastructure' – the cheap spaces, bars and coffee shops where a lot of creative work actually gets done (Hutton, 2008; Currid, 2007). Tech start-ups in the area echo these arguments, citing the cultural milieu as a source of inspiration and ideas, and of collaboration and competitive advantage (Gibbon, 2010).

TECH CITY LIMITS

We need to be realistic about 'growing our own Silicon Valley'. First, it doesn't seem that practical. The Valley is a city-region, over 1300 square miles across – more than twice the size of Greater London.^{iv} New York may be a better comparator, where the city's 'Silicon Alley' is cross-pollinated by the wider creative economy.

Second, cluster development is generally an organic, long term process. High tech hubs in the Bay Area and Southern Bavaria developed over decades, as initial public investments eventually bore fruit (Rode et al, 2010; Markoff, 2005; Saxenian, 1994). It will be difficult to jump start Tech City in a single decade, let alone a single Parliament.

Third, there are limits to business park and 'accelerator' approaches. Recent research from LSE suggests that science parks can boost innovation rates (Helmets, *ibid.*). However, much of this effect may be driven by existing concentrations of smart people, which science parks further cluster together. Elsewhere, cluster masterplans that rely on pure property-led strategies have

failed (Wadhwa, 2010). A recent study of over 700 initiatives found only one example of successful 'cluster by policy' (Van der Linde, 2003).

Finally, the wider role for government isn't very clear. International experience suggests that diametrically opposed approaches can both pay off. In the Bay Area, for example, government did relatively little beyond channelling Federal defence spending to the region, while public leadership is organised by business-led groups like Joint Venture: Silicon Valley. Bavaria's leaders took the opposite approach, spending heavily on public schools, universities and strategic infrastructure, and developing networks of innovation intermediaries like the Fraunhofer Institutes. Politicians, researchers and the private sector work closely together, with a clear sense of common purpose (Rode et al, *ibid.*).

LOOKING FORWARD

I think this leaves a number of challenges for London's policymakers. The main task is to identify London's USP in global technology sector space, and rank this against similar cities around the world. What is the profile of technology firms in London, where do they exhibit comparative advantage, and how does this plug into aspects of the city? How might future industry trends exacerbate or erode these characteristics?

Next, how much strategy do we need? Experience elsewhere provides no firm guides on where or how to intervene. However, Ministers and the London

Mayor already have a long list of asks from industry bodies: these include better access to finance, improving intellectual property regimes, improving workforce skills, easing immigration caps, and cheaper rents. We need to work out which are genuine market or policy failures.

First, finance. London tech startups consistently complain about access to finance. Conversely, the VC community often suggests the capital's firms lack business planning acumen.^v Certainly, returns to VC in the UK are consistently lower than in the US. Reed (*ibid.*) suggests this is due to better funding and management quality in US firms, but also that US funds benefit from clustering: investors have a bigger choice of opportunities, while competition for cash drives up standards. In turn, this suggests that further concentrating tech firms and VC in East London might improve the flow of funds.

Second, skills. As a city, London is a strong producer of skilled labour, with a number of world-class universities. Wider evidence suggests that transnational communities and 'brain circulation' are increasingly important features of high-tech growth (Saxenian, 2006). London also seems to benefit from some of these diversity-innovation-growth effects. However, the thrust of the current government's immigration policy is to restrict movement of labour, particularly foreign students. Cuts to university research and teaching may also threaten future flows of labour to London's tech firms.

Third, should we worry about gentrification? Silicon Roundabout is a vibrant local scene, but higher rents could push local firms (and services) out to other neighbourhoods. Other parts of London's creative economy have survived similar geographical shifts - witness the migration of film and TV firms out of Soho into West London (Pratt and Jeffcut, 2009). However, a cluster programme premised on attracting big industry players into East London neighbourhoods may simply replace small firms with larger firms - dispersing the cluster rather than concentrating it, and with short term costs to existing businesses.

The final challenge is different. What does Tech City offer the rest of the UK? At the moment, very little. The initiative is also very publicly run from No 10: this makes sense as a co-ordinating strategy, but may leave the programme politically vulnerable in coming months if it is seen as a sweetener for London while cuts bite across the rest of the country. Whitehall can help by concentrating on 'tech' - sectoral support that helps firms everywhere - and devolving the 'city' bit - property, planning and economic development - to the GLA. This division of labour also devolves much of the risk from David Cameron to Boris Johnson. That might be a wise move, if Tech City proves harder to deliver than to discuss.

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NOTES

ⁱ <http://www.number10.gov.uk/news/latest-news/2010/11/pm-announces-east-london-tech-city-56606>, accessed 28 February 2011.

ⁱⁱ Boost for 'tech city initiative in east London', *Financial Times*, 31 January 2011.

ⁱⁱⁱ Stakeholder interview, 17 February 2011.

^{iv} A conservative estimate is the surface areas of Santa Clara County, the centre of the South Bay Area. http://en.wikipedia.org/wiki/Santa_Clara_County, accessed 28 February 2011.

^v Stakeholder interview, 10 February 2011.