The Talent Connection

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The battleground of international competitiveness in the 21st century is innovation¹, and cities are increasingly viewed as the cauldrons of innovation, enriching not only their surrounding regions but their nations as a whole. For cities to flourish and enjoy a sustainable future in this high velocity, knowledge intensive, networked economy, they must continually re-invent themselves. And that requires talent, deep resources of human capital - highly talented individuals. This is the crucial asset that attracts firms, creates new levels of enterprise, and enables a city to re-invent itself as it is buffeted by increasing technological, social and environmental pressures. But attracting talent alone is not enough, a city must connect with it too.

Across the globe we see massive renewal taking place in our cities, fundamental shifts in the nature of work and the workplaces they host, and transformation of their output as well as their consumption. And in the rapidly industrialising countries we see small towns being transformed into metropolises and entire new cities being planned. From the City of London to Chennai, Shoreditch to Shanghai, or Amsterdam to Dubai, cities are growing, transforming and repositioning themselves as players on a global stage. And this transformation extends into major city centre and district regeneration initiatives, the provision of new leisure and cultural amenities and the renewal of advanced infrastructure including ICT and municipal wireless networks. Cities are vying not only to attract inward investment and international firms to relocate to their city, but to attract the talented and highly mobile knowledge workers that power the knowledge intensive economy. And this human capital is an essential precursor for many firms seeking a new international hub, or for high growth new ventures searching for the most effective location for their endeavours.

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Historically cities grew up at the intersection of trade routes or where geography favoured production and distribution of goods. These advantages were reinforced through agglomeration, economies of scale, the development of sophisticated infrastructures, especially road, rail and air links, and the enrichment and diffusion of expert knowledge through universities and research centres. These intersections were not only associated with material goods and their commercial exchange but also ideas, knowledge and human capital. And at the most important intersections, human capital aggregated and formal and informal institutions were formed.

But in today's knowledge based, services led economy where communications networks can sometimes seem more important than rail and road networks, global cities have now emerged as the crucial command and control centres of international business. And their amenities and sophisticated communications infrastructure are a major influence on the decision of firms to relocate to one city versus another.² Of almost equal importance in such decisions is the availability of a skilled pool of knowledge workers. We therefore find that talent, along with a robust 21st century infrastructure are both more important than access to local markets which was the predominant reason for firms to locate to a city in the industrial rear. In the knowledge-intensive economy, international firms as well as new ventures are operating globally almost from the point of inception.

The Knowledge Based, Networked Economy and the role of Talent and Infrastructure

Linked one to another and in turn to secondary nodes of production, distribution and consumption, we can witness the stronger cities growing in strength while others are relegated to a lower status or slide into an ever more depressed state. And the climb back to prosperity is long and tortuous. For instance New York City is the only one of the sixteen largest cities in the northeastern or mid-western United States with a higher population today than it had 50 years ago. In that time, the decline of some great cities has been precipitous, with their population halving over the last 70 years while the total US almost doubled in the same period. So the stakes are high as Edward Glaeser demonstrated in his seminal paper on the The Rise of the Skilled City and its analysis of New York.³

So what does it take for a city to succeed in this knowledge-based economy?, and specifically, what roles do communication infrastructure as well as access to talent play? Just as the roads,

railways and airports, electricity and telecommunications helped transform cities in the 20th century, how might the investments in new technology and differences in deployment and usage models favour one city over another in a rapidly shifting world? And how can these and other amenities not only attract international talent, but also engage it with local firms and institutions so that knowledge and skills can be exchanged and the city-region enriched?

In this article we examine one city in particular, Barcelona, and analyse its focus on talent and its quest to transform its industries and become a truly knowledge intensive city. Barcelona is an interesting example as it is clearly one of the world's most attractive cities as measured by European City Monitor, 2006⁴ where it has been consistently rated as number 1 in Europe for quality of life for employees, and number 5 in Europe as city for businesses to potentially relocate. Each year Barcelona attracts a growing international community, not only for business or to enjoy a holiday, but to set up home, find employment or start a business. 15.3% of the population is from outside of Spain⁵. Clearly Barcelona has no problems attracting talented individuals and businesses, but to what extent is the city, its economy and the overall human capital enriched by this? And finally, what other conditions may be necessary to go beyond the attraction of talent at a national and international level?

The Importance of International Talent for Innovation

Barcelona is an increasingly popular destination for the "creative classes" a term coined by Richard Florida, 6 with almost 55% of the international community from the EU15 plus USA and Canada educated beyond 18 years compared to 22.6% of the local population. But as the city has found, attracting this international community is not enough to stimulate its transformation to a knowledge intensive city. Recent employment

data shows a growth in the proportion of lower value-add jobs, fuelled by growth in the construction sector and leisure services, rather than the knowledge intensive sectors (IDESCAT, 2006). For the community to become a significant actor in transforming the knowledge intensity of the city, the city authorities are seeking not only to attract this community but they recognise the need to connect it to the local firms and institutions.

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The Barcelona City Authorities and specifically the 22@Barcelona District of Innovation, tasked Design London with understanding the extent to which international talent based in the city was currently engaged with the firms, institutions and local community. Design London is a joint venture between the Royal College of Art and Imperial College London which focuses on interdisciplinary innovation. The Authorities were seeking to determine the attitudes by both the local and international communities with respect to the other, and specify what actions could be taken to enhance the level of engagement between these communities. The research team were tasked with the following objects – How could 22@Barcelona:

- Accelerate the transformation of the city to a "knowledge city" and especially the new 22@ District of Innovation which should become the new international heart of the city for firms and institutions, as well as home to an international workforce.
- ▶ Harness the international community's links to firms and institutions worldwide, and enhance Barcelona as a global hub of innovation for the knowledge based industries, as well as provide new international opportunities for existing firms.

Harnessing the Social and Business Networks of the International Community

Research by Prof AnnaLee Saxenian⁷ highlighted the importance of international talent not only in terms of its direct intellectual contribution to a city, but also the importance of its international social networks that reach back into the countries from which these talented individuals originate. Her analysis focuses on the new immigrants as well as first generation US citizens from China, India and South East Asia which represent almost forty percent of the employees in the high tech industries of Silicon Valley. She demonstrates that the transformation of these rapidly emerging economies and skill base during the last decade has created not only an outward flow of highly trained knowledge workers to the US, but also the reverse as many of these knowledge workers return to their home countries and towns. However the return is not a reverse brain drain but evidence of what she describes as brain mobility.

These skilled professionals and senior managers return part time, or for a short period to establish local businesses that can supply Silicon Valley firms with goods or services, or to provide outsourcing. The term brain mobility refers to individuals working in one or more locations and moving seamlessly between these, even when they are many time zones apart. In the case of Silicon Valley, we see not only the international community connecting and being deeply engaged with local firms, but also being the principle actor network in developing ties with the international community by leveraging their international social and business networks.

Research has also shown that skilled knowledge workers, and especially international talent, are also highly mobile and will settle in places that offer combination of rich socio-cultural amenities and economic growth opportunities. And this creates a virtuous circle as

firms relocate to exploit the high quality social capital, as well as engage with advanced and innovative consumers of their products and services. This heightens the requirement for city authorities to not only ensure that they offer businesses an attractive economic and financial environment, but that they deliver a quality of life and socio-cultural amenities that can not only attract but also retain the highly mobile knowledge-worker community.

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The Importance of Diversity

When we model the evolution of cities with the growth of human capital and the innovation capacity of the city we see the importance of a heterogeneous labour force that brings diversity in skills, experience, culture and social networks.

In fact, unless a city and its economy is constantly supplied with such people convergence in knowledge and information will occur and innovation will diminish. Clearly, failure to exploit diversity, higher levels of education and knowledge and the international social networks of the highly mobile international community that is already present in the city, is likely to sub-optimise the cities progress towards becoming a knowledge intensive city. A city must therefore ensure that it is making the most of the international community and rich pool of talent that is already present, as well as attracting talent to the city.

Connecting Local and International Talent

This leads to the main premise of the research undertaken in Barcelona. Our hypothesis in essence was that it is not sufficient to attract the skilled international community - the creative classes. For the city to benefit, it is essential to capture the knowledge, intellectual and economic spill-overs into local firms and institutions, and harness their social and business networks. This does not happen spontaneously but needs to be facilitated by pro-actively engaging the local and international communities. And, that this international community's social and business networks, extending back into their home countries, is an important tool for increasing the competitiveness of the local firms, as well as opening up potential new international markets.

Barcelona's attraction for the creative classes is evident from many different market research studies and born out by the education and population data that demonstrates that not only are they attracted but also that they are present in substantial numbers. However the City Authorities were concerned that this important asset in terms of social capital was under-utilised and that increasing the extent of its engagement with local firms and institutions, as well as at a social level with the local community would greatly enhance the city as it transforms itself into a more knowledge intensive city. The research and analysis supports this view and indicates that a city that can not only attract, but is proactive in engaging the international community with local firms and institutions is more likely to prosper in a highly competitive knowledge intensive, networked economy.

The research we undertook demonstrated that the international community in Barcelona was clearly seeking much greater engagement and that the barriers to greater engagement were present and needed to be pro-actively addressed. It was not just the case of developing the city's amenities and attracting the creative classes from all over Spain or internationally. As Barcelona's

experience has shown, if attracting international talent is the main focus, the jobs that tend to be created tend to be in the construction sector and retail and leisure services, not the knowledge economy. This well educated, mobile community naturally seeks high quality housing and services to support the lifestyles that attracted them to the city thereby creating jobs in these sectors. And with economic incentives to relocate such as lower taxes than in their home countries, their contribution to the public sector may be proportionately much lower than local citizens. For a city to therefore benefit, it must be pro-active in engaging them if it is to exploit their capacity for innovation, knowledge transfer, and access to extended international social networks, all of which are viewed as crucial to Barcelona's future.

As we saw earlier, the experience of Silicon Valley and its highly integrated international community has demonstrated the value that can be gained from not only the direct injection of social capital, but also the extended international networks this community brings. And the value of this network is in both the provision of lower cost sources of supply to make the local firms more competitive, but also in opening new markets.

Finally, diversity in the workforce and a constant supply of such people is important to maintaining or enhancing the innovative capacity of a city and avoiding a convergence in knowledge and information but again this depends on the city's ability to exploit this asset.

Destiny: Hub of Innovation or Heritage Destination

The research undertaken for Barcelona confirmed the concerns that the city authorities had identified and prompted an intensive focus on programmes to pro-actively develop talent, and to intensify the connections between the international community and local firms and institutions. Barcelona, and especially the 22@ District of Innovation, see their city as a global hub of innovation, rather than an attractive heritage destination

on the Mediterranean. It can of course be this as well, but for the city to flourish it needs to have more the characteristics of Palo Alto, rather than an Orlando with modernist architecture.

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Attract, Retain, Develop, Connect

The 22@ District is therefore leading the way for Barcelona a programme known as 22@ Talent. This is a systematic programme to develop the talent of the 22@ district. This district is rapidly becoming the centre for Barcelona's transformation to a knowledge intensive city. The programme has four principle components.

- Attracting talent, especially entrepreneurs in the knowledge based industries, or top talent in research and development, means not only having the right amenities as we highlighted earlier but programmes that reach out globally and articulate the lifestyle, intellectual and economic value proposition of the city. Barcelona has developed a programme of bridges into cities around the world, as well as highly effective communications programme to motivate people towards the city.
- ▶ Retention implies a dense network of firms and employment opportunities, programmes to help new ventures flourish, and the socio-cultural amenities from international education and schools to suitable housing, sports facilities, retail and an advanced services sector that contributes to lifestyle and well-being.
- ▶ The next component is the focus on **developing talent** in both the local and international communities through investment in education programmes at all levels. From primary education to post graduate programmes and new skills

development for the third age, Barcelona has put in place an ambitious programme and nowhere is this more evident that in the 22@ District. One Programme that exemplifies the talent development programmes of 22@ is called Virtual Memoria. The Virtual Memoria initiative has reached out into schools, trained children in advanced media skills so they could film and interview the older people of the district and then develop online internet based dossiers. It has led to three important outcomes.

The school children have developed new skills and it has awakened their passion for the knowledge intensive sector; secondly it has preserved the cultural heritage of their district creating greater personal engagement within the community; finally, it has demonstrated to older people the power of the internet. This community has been excited by compelling digital content about their own lives and locale. The programme has stimulated this generation to now exploit the online tools used by their grandchildren. This is one small but highly emblematic programme that demonstrates a deep commitment by 22@ to the development of talent.

▶ The final component is the programme to **connect** the international and local communities through the Intensifying Connections Project. This has a number of strands and includes social as well as commercial and business programmes and is driven by the 22@ District in partnership with an international advisory circle and Goodwill Ambassadors from that community. They are partnering with the city and the 22@ district to shape the strategy and facilitate its execution. These "Ambassadors" are drawn from across the international community and are characterised by the strength of the local as well as international social and business networks, and the energy and vitality they can bring to mobilising international talent within the city.

In summary, all four components are seen as crucial to realising the city's ambition to become a hub of innovation rather than an attractive heritage destination alone, and are an exemplar to other cities with similar ambitions.

Looking back to Look Forward

The mid nineteenth century saw an extraordinary growth in English cities on the back of the first industrial revolution. Studies of the growth of English cities over a one hundred year period from the mid-nineteenth century show that social capital and the skills connected with the production and spread of information had a system influence on the growth of cities. As we move into a post industrial era where the knowledge intensity of a city will be an even greater determinant of its competitiveness, research has shown that cities must proactively engage talent

from both within and beyond the city, or nation. It is not enough only to attract talent. Failure to exploit the highly mobile international community already present in the city by pro-actively connecting it with local firms and institutions, can change the trajectory of a city, weaken its capability for re-invention and the future prosperity of all of its citizens.

Barcelona and the 22@ District in particular can be seen as an exemplar. The city has always been an innovator and is seeking to continue that characteristic well into the future by not only attracting and retaining global talent, but developing it and connecting all the talents of the local and international communities.

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He was Director of Business Development in Europe, for IBM Global Services, and led IBM's business in the telecommunications industry. His work at Imperial College Business School focused on the impact of ICTs on the social and economic vitality of cities.



Notes

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