



Raising the stakes

GIS gives London's inward investment agency an edge in competing for business with others at home and abroad, says Patrick Weber

Over the past 11 years Think London has acted as London's official Foreign Direct Investment (FDI) agency, helping more than 900 companies from 42 countries locate in the capital. However, in competing for inward investment with other cities at home and abroad, the organisation (www.thinklondon.com) saw the need to improve and better target its marketing and sales activity. It also needed an information tool to help investors identify the most desirable location for their business within the metropolis.

To address the need, Think London and University College London's Centre for Advanced Spatial Analysis launched in January 2005 what is known as a Knowledge Transfer Partnership or KTP (more details at www.ktponline.org.uk). Specifically, this aimed to develop a Geographic Information System to promote inward investment, the author being hired as GIS project manager.

GIS strategy and framework

GIS development was based on research frameworks for competitive regions (the ability to attract and retain investment) developed by authors such as Porter (2003), Kitson (2005) and Florida (2003). These provided a geospatial framework of factors relevant to FDI.

One of the most popular theories to explain differences in the economic performance of different regions argues that the strength of regional economies is strongly related to that of local clusters (a geo-

graphically proximate group of interconnected companies in particular industry sectors).

While this approach has been widely adopted by UK regional development agencies, its emphasis on clusters as foci for growth represents only a partial view of regional development. Supplementary factors such as local knowledge, learning and creativity must also be accommodated. These can be classified using a variety of different measures to establish the capital available.

To ground truth the Think London GIS framework, these and other factors were related to the findings of an internal user requirements analysis. Based on a series of structured interviews, this captures the experiences of staff in dealing with the data requirements posed by clients (see Table).

| | |
|--------------------|--|
| Physical Capital | Infrastructures and facilities Environmental Services & Infrastructure Commercial & Residential Property |
| Social Capital | Public Services Healthcare |
| Human Capital | Socio-demographic data |
| Knowledge Capital | Labour force data |
| Productive Capital | Company Data Business Intelligence |

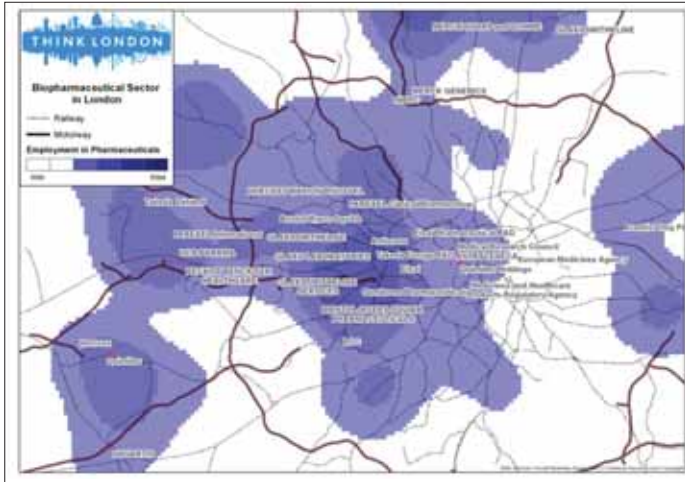


Fig.2: A density surface for employment data for pharmaceutical manufacturing overlaid with key competitors in the sector

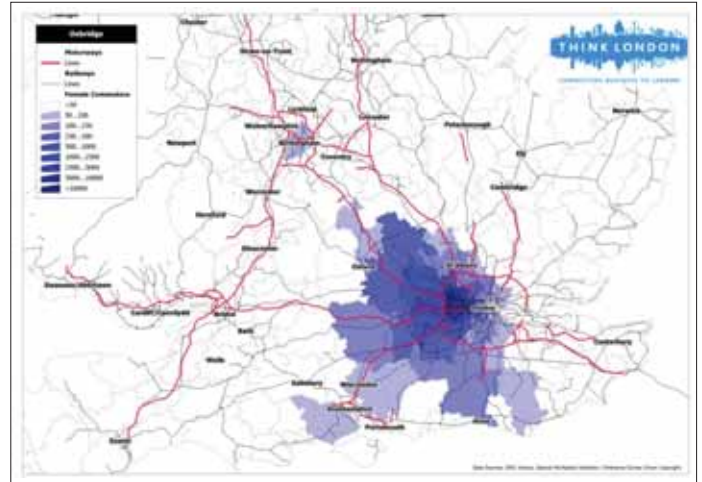


Fig.3: Commuter analysis for female commuters to an Uxbridge location

From this work, it was clear that the data identified covered only a subset of the “Capitals” described in the theoretical frameworks.

Testing times

A prototype GIS was tested on “live” consultancy projects, as well as on marketing and market research projects, to give a deeper insight into how the GIS could help improve Think London’s services. Feedback from these was used to refine the initial user requirements.

In linking these refined requirements to the theoretical framework, five main mapping applications that seemed to cover most of Think London’s current needs could be distinguished:

- **Business Sector Clusters:** Most commonly, client enquiries related to the location of potential competitors, partners and suppliers. Thus, intelligence on these, as well as wider intelligence on the economic landscape were key elements of the response to client queries. Fig.2 gives the results of a typical query showing the density of employment in the pharmaceutical industry overlaid with company locations to give some indication of local Productive Capital.
- **Labour force & Commuters:** Some larger clients looking to relocate were particularly keen to characterise the extensive and diverse distribution of London’s Knowledge/ Creative Capital, e.g. universities and research institutions, as well as private R&D facilities drawn from various data sources. The GIS also presented the distribution of

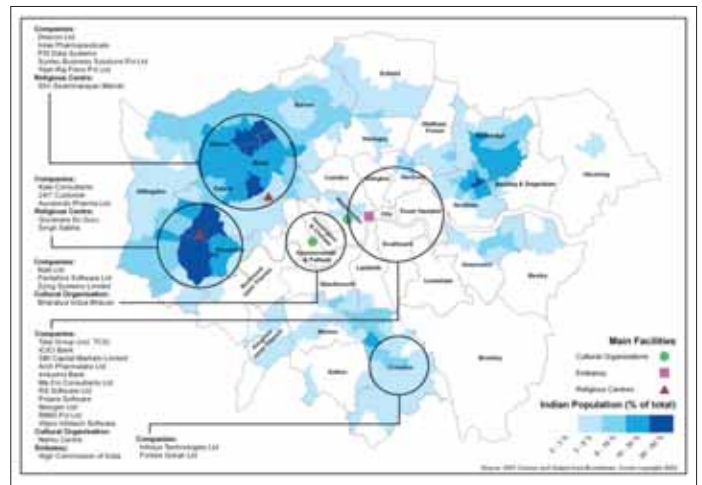


Fig.4: Local Community Map for the Indian population of London

Human Capital through the use of Census 2001 data. Fig.3 is a typical representation of the local workforce distribution, its qualities, and supplemental analysis of labour catchment areas through the analysis of commuter flows.

- **Local Communities:** Social Capital was the main driver for a range of community maps that characterised the London’s socio-demographic and ethnic diversity. Using Census and commercial company data,



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Fig.5: East London Public 2016: Planned improvements in public accessibility and target areas for regeneration and urban development

we tried to discover the main hubs of concentration and economic activity for the Indian and Korean community. These maps (Fig.4) were used as marketing material to raise awareness of London's thriving ethnic communities.

- **London's Future 2016:** The market research department was interested in understanding London's future and opportunities using the London Plan, the Greater London Authority planning and development strategy for the next ten years. The finished mapping product (Fig.5) visualises Intensification and Opportunity Areas in London, with job and home creation numbers in 2016. Along with Transport for London data on improved public transport accessibility, these maps allowed Think London to understand how infrastructure improvements (Physical Capital) will potentially influence regional economic development.

Conclusions

The geospatial framework, together with the findings from the User Requirements Analysis and prototype testing gave Think London a better understanding of geographic data needs and of the spatial factors influencing foreign direct investment.

The implementation and application of the GIS to 'live' requests helps Think London market itself in a more intelligent, in-depth,

punchy and proactive manner, and helps the organisation focus its resources more efficiently. The project has now reached a point where the four key mapping products are operational. A project target for the coming months is to develop an Intranet web mapping portal that gives direct GIS access to all staff.

Although the project has delivered a portfolio of very useful visualisations for inward investors, the need remains to develop robust geographic indicators in support of locational decisions. For most of the "harder" capita, appropriate datasets are available and the Think London Market Research Team now routinely responds to client enquiries using the GIS in those domains.

However, some of the "softer" capita such as social and financial/entrepreneurial capital remain more difficult to capture and quantify. Thus in the short-term we are seeking to develop surrogate measures from existing datasets that are not necessarily adapted to measure these factors, and devise methodologies that will be able to fill any gaps we currently have in data provision or analysis.

Patrick Weber is a Research Associate with the Centre for Advanced Spatial Analysis at UCL, focusing on the development of the Think London GIS, and can be contacted by email at pweber@ThinkLondon.com

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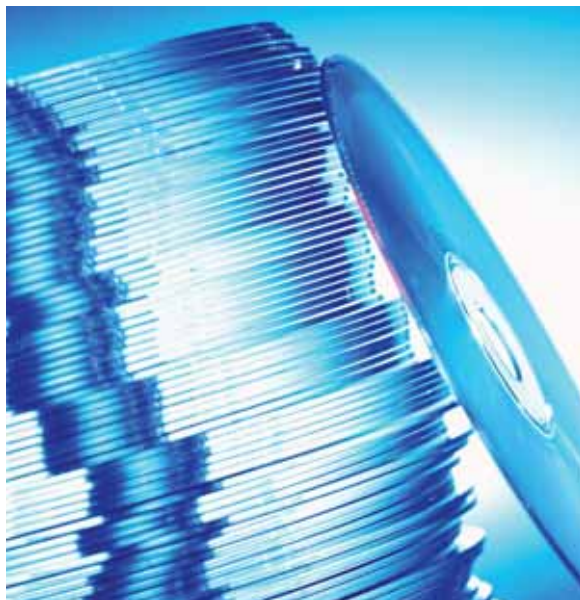
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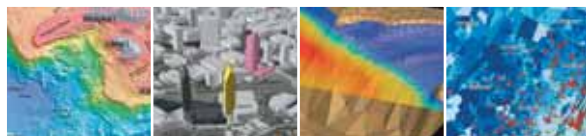


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