BENCHMARKING DUBLIN: DIALOGUE ON DUBLIN'S POSITION IN THE WORLD CITY NETWORK

REPORT

to the

Office of International Relations and Research
DUBLIN CITY COUNCIL

Loughborough, United Kingdom, February 2010

This is a

Report by the Globalization and World Cities (*GaWC*)
Research Network

on the

Workshop at the Wood Quay Venue
Civic Offices, Dublin
on January 25th 2010

to the

Office of International Relations and Research –
Dublin City Council

entitled

Benchmarking Dublin: dialogue on
Dublin's position in the World City Network

presented by

Peter Taylor (Loughborough University, UK)
Ben Derudder (University of Ghent, Belgium)
Michael Hoyler (Loughborough University, UK)

PURPOSE AND PARTICIPANTS

The **basic purpose** of the Workshop was to bring together a leading academic think tank on global cities, ***GaWC*** (www.lboro.ac.uk/gawc), and the international research arm of Dublin City Council to explore synergies between the distinctive understanding of cities offered by ***GaWC*** and the identified need of the city of Dublin for collaboration and networking with other cities across the world.

The means of achieving this purpose was an **intensive, interactive exchange of ideas** between ***GaWC*** network presenters and approximately 30 workshop participants in the fields of politics, business, public sector, tourism, education and community invited by Dublin City Council. The workshop took the form of **a dialogue for exploring the challenges Dublin faces in terms of its status as a world city**: how it 'brands' and positions itself globally.

Participants in the Workshop were divided into table groups of c.10 people to facilitate discussion and debate. In the discussions ***GaWC*** presenters were on hand to clarify ideas and facilitate exchange at tables but not to lead the arguments. In this dialogue ***GaWC's*** "leadership" of ideas comes through the presentations.

CONTENTS

WORKSHOP PROGRAMME

The one-day programme started at the more general level and ended on the very specific identification of Dublin's peer cities in globalization. The time was split relatively evenly between presentations by members of the ***GaWC*** team drawing on their worldwide experience and expertise, and table work by Dublin invitees bringing local knowledge of their city and its needs to the dialogue and discussion. ***GaWC*** team members helped each table in the process of bringing these 'global' and 'local' knowledges together in a productive synthesis.

10.30	*Registration*	
11.00	**The importance of the international dimension for Dublin and Ireland**	*John Tierney* *(Dublin City Manager)*
11.15	**Context of the dialogue**	*Peter Taylor*
11.30	**Where is Dublin? Who are Dublin's peers?**	*Ben Derudder*
12.00	**The GaWC perspective on cities in globalization**	*Peter Taylor*
12.30	**How cities relate to each other**	*Michael Hoyler*
13.00	*Lunch*	
14.00	**GaWC results for the world city network in 2008**	*Ben Derudder*
14.30	**Where is Dublin in the world city network?**	*Michael Hoyler*
15.00	*Break*	
15.15	**Who are Dublin's peers? Benchmarking results**	*Peter Taylor*
16.00	**Closing remarks**	*Peter Finnegan* *(Director of International Relations and Research)*

STRUCTURE OF THE REPORT

This report is built around the PowerPoint presentations used in the Workshop. All slides used in the Workshop are reproduced here to provide a precise record of activities. A short introductory text will indicate how each contributed to the larger whole that was the Workshop.

The activities of the Workshop fell into two categories:

1. Presentations by members of the ***GaWC*** team drawing on their worldwide knowledge of global cities customised for the Dublin audience. Each is presented here with a short introductory text indicating its contribution to the larger whole that was the Workshop.

2. Discussion and debate – '***table work'*** – in small groups on the themes derived from the presentations. For this activity we present summaries of the results of the discussion and debate.

CONTEXT OF THE DIALOGUE

Three key points readily encapsulate the nature of the workshop.

1. *Benchmarking and the complexity of cities*

   The purpose of the workshop was to aid Dublin in finding peer cities against which it can be benchmarked. Benchmarking was originally devised to assess individual companies or sections of companies by comparing them to other companies with similar functions. But cities are much more complex entities than companies thus rendering city benchmarking a more difficult exercise. Therefore although we can compare Dublin with other cities, we cannot expect to find examples that are similar to Dublin in all or even most respects. Rather several cities are likely to be found that are similar in specific ways so that between them they might cover many of the features that make Dublin the city it is.

   Once this inherent complexity of cities is recognized, there are two countervailing effects we have to take into account when comparing cities. First, we need to marshal a lot of evidence to provide robust results. Second, we need to be clearly directed at relevant strategic elements of city complexity. Thus the workshop will be strongly evidence-based using the latest data targeting the key institutions that are building city economies in contemporary globalization.

2. *The need to think globally*

   Globalization is the term used to describe the new larger scale of human activities that became apparent in the 1980s and 1990s. We will be concerned with economic globalization, whereby a more interconnected world was created by large corporations, initially called 'multinational', latterly 'global'. The work of these global corporations transcends individual countries to create what is now termed the 'global economy'. Thus national economies have become increasingly subject to economic globalization, restricting the traditional autonomy of national governments. It is in this context that Dublin's function as the capital city of a small-medium European country remains important, but the city's future lies in its economic functions within a globalising world economy.

   This globalising is an additional layer of complexity that affects all contemporary cities. This means that city policymaking has to take into account the existence of a world city network as the urban expression of globalization. It is no longer sufficient to base city policy on Dublin's position as the predominant city in Ireland; rather policy makers must look to the position of Dublin in the world city network.

The Globalization and World Cities (GaWC) Research Network

GaWC is the leading academic thinktank on cities in globalization. It operates as a worldwide network of urban researchers with key nodes at Loughborough (UK), Ghent, Beijing and Washington, DC. Collaboration is organized through its renowned website (www.lboro.ac.uk/gawc). Its prime concern is the measurement of inter-city relations that constitute the contemporary world city network. This research indicates the importance of any given city – how well integrated it is into the network – and as such has attracted attention from urban policymakers worldwide. The most intensive use of the GaWC approach has been in Milan where a company, Globus et Locus, has been set up to promote 'Global Milan'. The largest workshop so far has been in Abu Dhabi where GaWC has been advising the Abu Dhabi Council for Economic Development (ADCED). In the UK GaWC has done one Report for the City of London and has researched the Core Cities group. GaWC research has also informed the UK Treasury fourth economic test for entry into Economic and Monetary Union (on the UK financial services industry and the City's wholesale markets). We were employed by the New South Wales government for input into last year's Metropolis conference resulting in our prominence in the current "State of Australian Cities 2010" report. The latest interest comes from from Las Vegas and we are currently planning an intensive study of the Chinese city of Qingdao in collaboration with their city authorities.

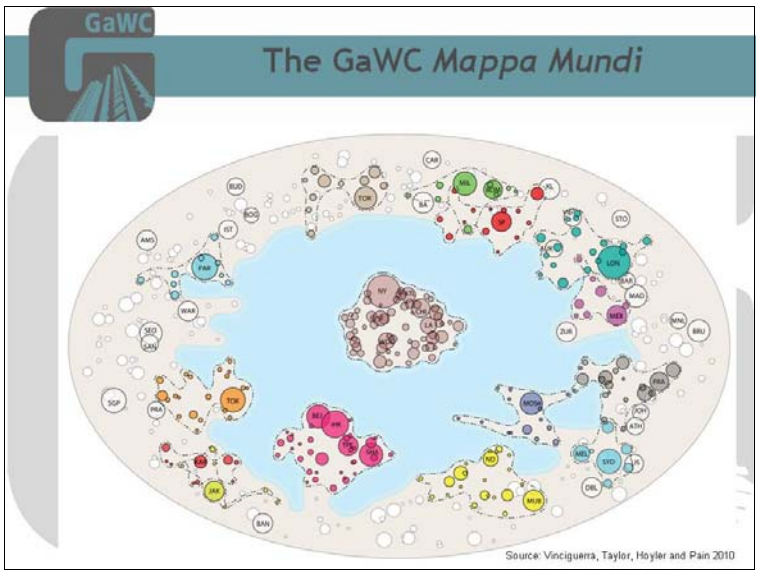
The evidence used in this workshop derives from collaboration between the Chinese Academy of Social Sciences (CASS) in Beijing and GaWC researchers at Loughborough University (UK) and Ghent University (Belgium). The resulting database was created in 2008 and is the largest set of information ever collected on how globalizing firms use cities for their business. Applying GaWC's signature model (the interlocking network analysis described below) to this data enables us to evaluate cities in globalization so that Dublin can be directly compared to hundreds of other cities worldwide.

In order to start the workshop in an upbeat manner a diagram from one of GaWC's latest publications was presented showing an unusual image of the world wherein US cities appear as an 'island' centre of globalization. This figure was derived from a network analysis of the same data used in the benchmarking below. It is of interest because it highlights American exceptionalism in world city networks, a feature that will be relevant in later consideration of cities for Dublin benchmarking.

3. The dialogue

The analyses reported below focus upon Dublin's position in the world city network. In other words we have customised GaWC knowledge for this workshop. Hence what GaWC brings to the dialogue is deep knowledge of the global with some less knowledge of the local (i.e. Dublin city).

The workshop participants, on the other hand, have deep knowledge of Dublin with some less knowledge of the global (i.e. the world city network). The purpose of the dialogue is to blend these two knowledges in a collaborative conversation on benchmarking Dublin in the world city network.

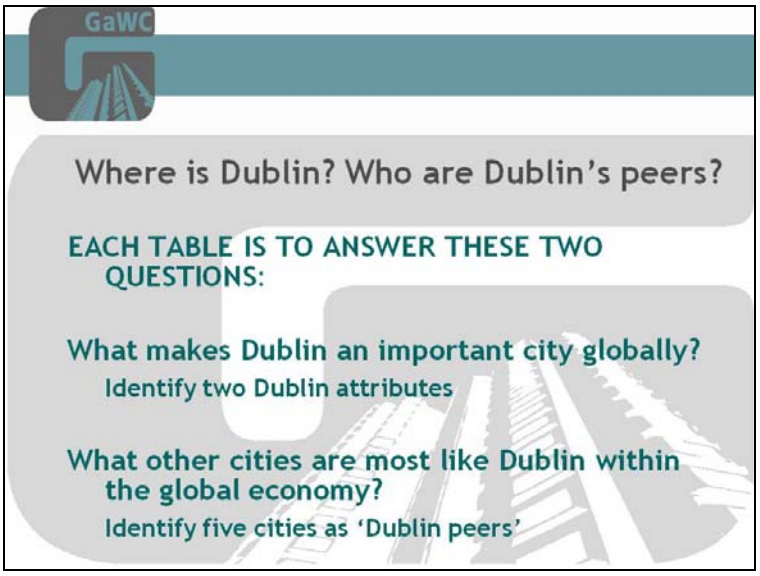



GaWC
Introduction to the workshop
Who are GaWC? (www.lboro.ac.uk/gawc)
• Worldwide research network
• Focus on relations between cities
Nature of the workshop
• Customized GaWC knowledge
• Collaborative exercise with local knowledge

INITIAL TABLE WORK: WHERE IS DUBLIN? WHO ARE DUBLIN'S PEERS?

The dialogue began by inviting participants to share their perspective and understanding of Dublin in the world city network. There were two elements to the table-work: first, identifying attributes of Dublin that make the city important globally, and second, identifying other cities that are considered to be economically similar to Dublin. In other words this is the first step towards benchmarking Dublin.

The specific instructions are shown in the following slides.



The results of this exercise were as follows.

1. *Dublin's key attributes*

   Two attributes were agreed upon as important: first, the people, their skills and openness to new ideas coupled with links to a worldwide diaspora, and second, the government's pro-business policies. Participants also referred to the 'ideal combination' of being in an English-speaking country in the Euro-zone. The scale of the city (liveable compared to London?) and its international reputation for tourism and culture were also mentioned.

   These are all relevant attributes but in the subsequent discussion we emphasize the first topic with a somewhat different, and more economic, interpretation.

2. *Initial identification of Dublin's peers*

15 cities were identified. They fall into four groups:

(i) Continental European cities dominate with 7 cities identified. **Amsterdam** and **Barcelona** are selected 4 times, **Copenhagen** 3 times, **Helsinki** twice, and **Valencia**, **Stockholm** and **Geneva** once
(ii) Three UK cities are identified: **Manchester** and **Edinburgh** are selected twice and **London** once.
(iii) From English-speaking Commonwealth countries there are three cities: **Vancouver** twice and **Auckland** and **Melbourne** once.
(iv) Other cities mentioned once are **Tel Aviv** and **Singapore**.

(Note. The reason for there being no US cities mentioned relates to part of the introduction that referred to American exceptionalism in the world city network. US cities in globalization are distinctive and different and therefore are not strictly comparable with other cities in the world city network. Thus these cities are not suitable candidates for benchmarking Dublin. This does not mean US cities are not important to Dublin but only that they are not relevant for this particular exercise.)

The result of this first benchmarking exercise is interesting for its privileging of north European capital cities (plus Barcelona where Dublin has existing links) and its focus on middle-sized cities (London and Singapore are exceptions. The relative omission of neighbouring UK cities is also noteworthy although the focus beyond Europe does privilege Commonwealth cities. All these informal criteria make sense as subsequent analysis will show.

THE GaWC PERSPECTIVE ON CITIES IN GLOBALIZATION

This section of the workshop had two parts: firstly, a presentation of a more specific description of the GaWC approach to cities in terms of city competition versus city cooperation, and secondly, table-work to illustrate the importance of the latter.

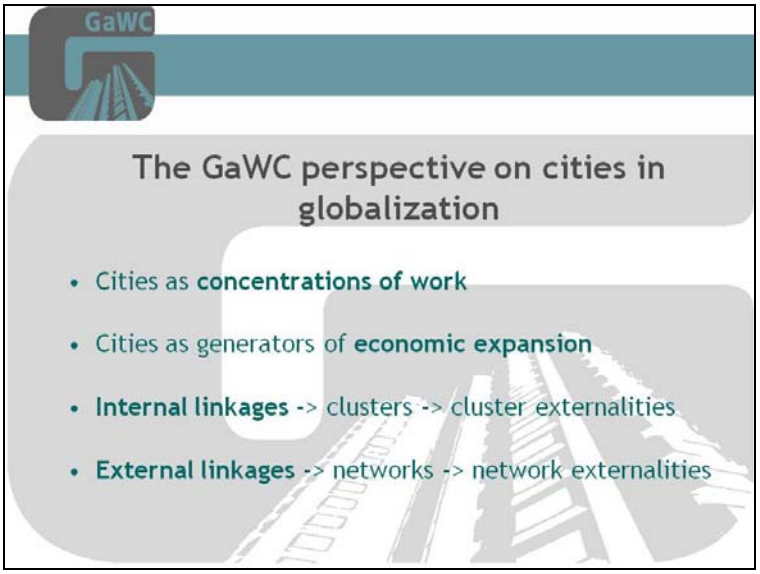
(i) Basic ideas: the importance of inter-city relations

The basic starting point of the GaWC approach is to treat cities as concentrations of work. Thus the initial question asked of a city is what work is done in this place. In other words you understand a city by the work that is done within it.

The basic premise of the GaWC approach follows the groundbreaking work of Jane Jacobs on how city economies work. The key point is that cities are where economic expansion occurs. In other words the strategic entities for understanding economic growth are actual city economies rather than their cumbersome amalgam in political states.

Economic expansion derives from two sets of linkages in city economies. First, there are internal linkages within knowledge-rich economic clusters that typify all successful cities. Second, there are external linkages with other cities through which knowledge is also generated; successful cities are always members of vibrant city networks. Both of these linkages can be interpreted as externalities, advantages to businesses located in cities outside the usual market structures. Thus economic expansion derives from a combination of cluster and network externalities.

Arguably, with cities in globalization, at the present time the importance of external linkages has been enhanced. This is especially exemplified by the advanced producer services sector, where financial, professional and creative service firms are now global in scope. These are firms that provide specialized and customized services for other global corporations in sectors such as law and advertising. In the last few decades they have had to set up worldwide office networks in response to their corporate clients 'going global'. These are the business firms housed in the huge office tower blocks (with associated enabling infrastructures) that dominate world city skylines. Although not always themselves the largest global corporations, they are particularly indicative of where the action is: places of rapid economic growth require these firms to facilitate and augment this growth. In other words, advanced producer service firms are found at the cutting edge of a globalizing world economy. Our focus will be on these firms and their office networks across the world



(ii) Table work on the launch of the euro and Frankfurt-London 'rivalry'

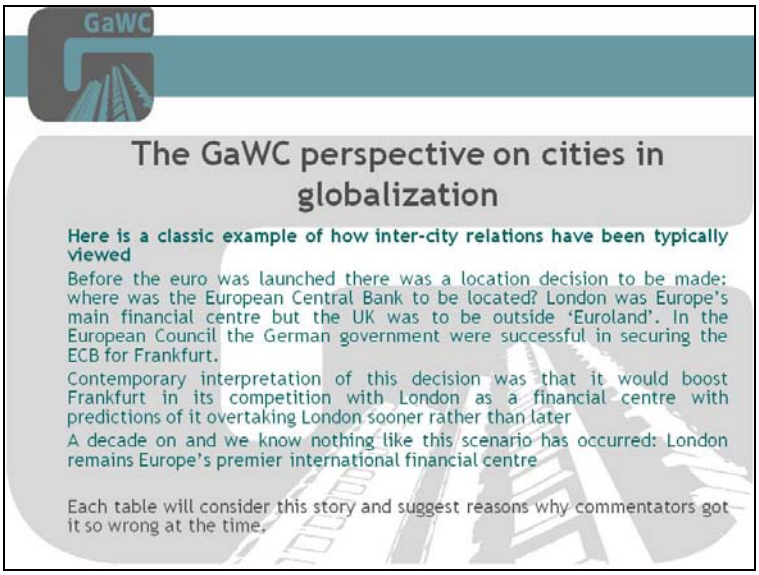
Focusing on the world city network produces one important corollary: we should expect cities to show more evidence of inter-city cooperation than inter-city competition. This is because, despite the large literature on city competition, networks are inherently cooperative in their functioning: without mutuality networks will simply dissipate.

To develop this idea we use a case study from an early project on relations between London and Frankfurt at the time of the launching of the euro. There were numerous assumptions that with the UK (and therefore London) operating outside the Eurozone, and with Frankfurt housing the new European Central Bank, the latter city was primed to overtake London as Europe's leading financial centre. Today we know that this did not happen. Participants were invited to consider why this was the case.

The participants' answers to this question revolved around two related differences between Frankfurt and London.

1. The simple difference in scale between the two cities: London is not just bigger demographically but also has a broader, all-round city economy compared to Frankfurt. Financial centres are not stand alone activities but are integrated into many other city functions.
2. London has a long history of being a leading international financial centre so that its functioning and needs are embedded in London's fabric. Frankfurt was not structurally capable of displacing London.

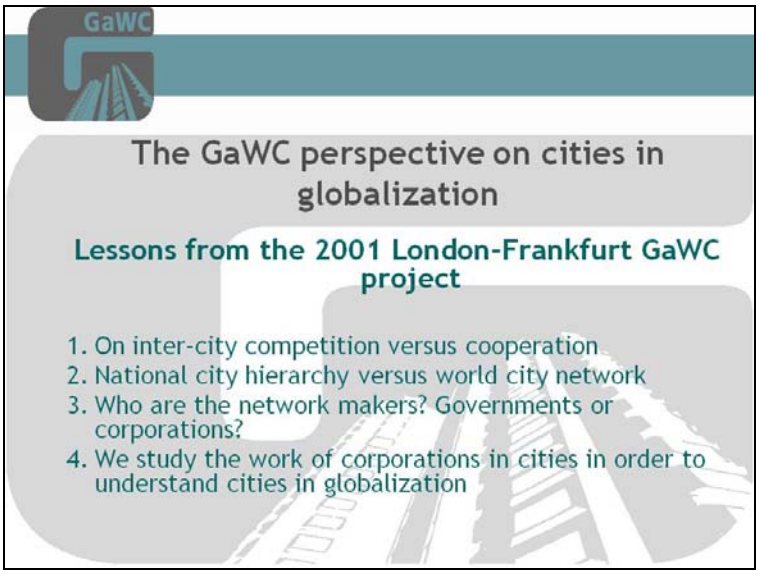
Put simply, even important decisions such as locating the new central bank cannot disrupt established economic practices that are part of the complexity that makes cities.

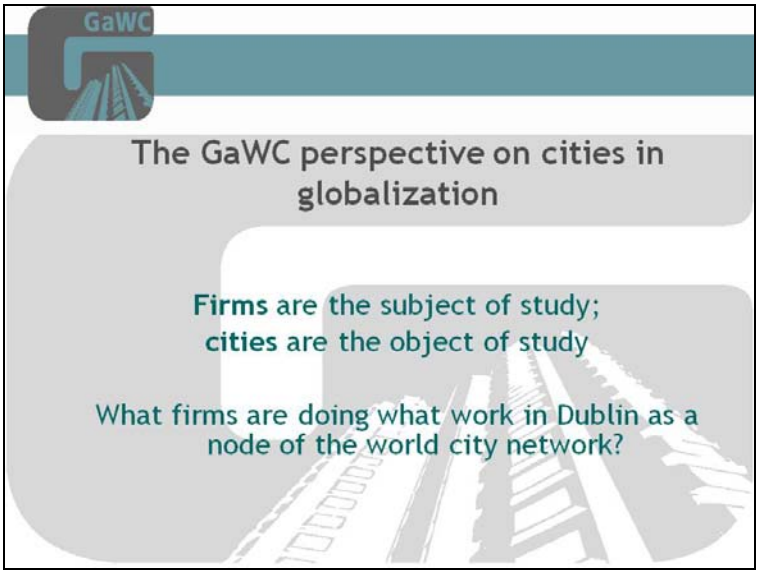


(iii)Lessons learned

The participants' answers were quite valid but there was another very important lesson that GaWC researchers took from this inter-city case study. Funded by the Anglo-German Foundation, in 2000 we interviewed executives from 26 firms (in banking, law, advertising, management consultancy and accountancy) in London and 23 in Frankfurt, plus representatives of 18 relevant institutions in London and 8 in Frankfurt. We explored with them the effects of the launching of the euro on the two cities but more generally we found that the study informed the debate between competition and cooperation as inter-city relations. Basically our results showed that although the politicians and media had framed the relations as competition, the business service firms we studied saw only cooperation. Nearly all firms had offices in both cities and therefore wanted both cities to be successful. They used the two cities in different ways – London for 'global work', Frankfurt for 'European work' – in other words, that were complementary. Quite simply, as one respondent put it, "What is good for London is good for Frankfurt and vice versa". This is the mutuality of networks. There may be inter-city rivalry between cities within countries for government largesse to climb national urban hierarchies, but this is not contemporary globalization.

The key point is that the 'networkers' who 'interlock' cities through their routine work are firms located in numerous cities, in particular advanced producer service firms. It is these corporations and not national governments that are directly responsible for the emergence of a world city network. This is why we study the behaviour of firms – specifically their location decisions – to understand how cities are connected in networks. In other words: firms are the subjects of GaWC research but cities are the object.




GaWC
The GaWC perspective on cities in globalization
Firms are the subject of study;
cities are the object of study
What firms are doing what work in Dublin as a node of the world city network?

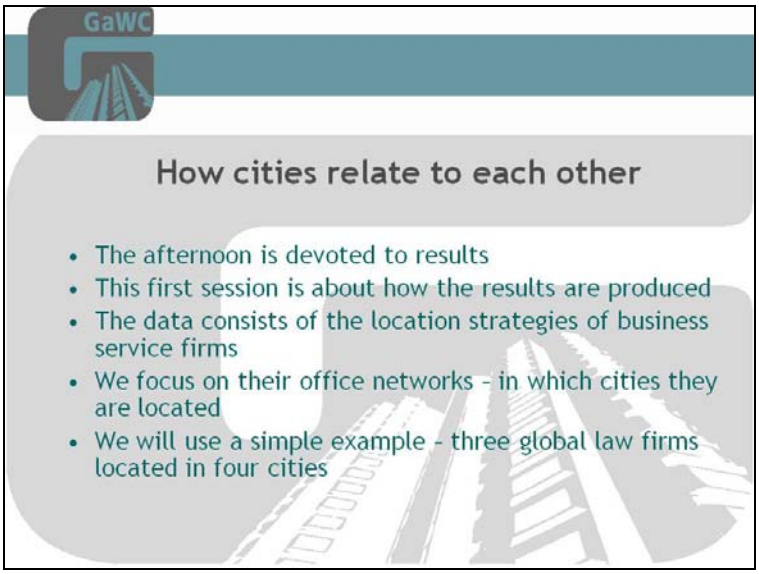
HOW CITIES RELATE TO EACH OTHER

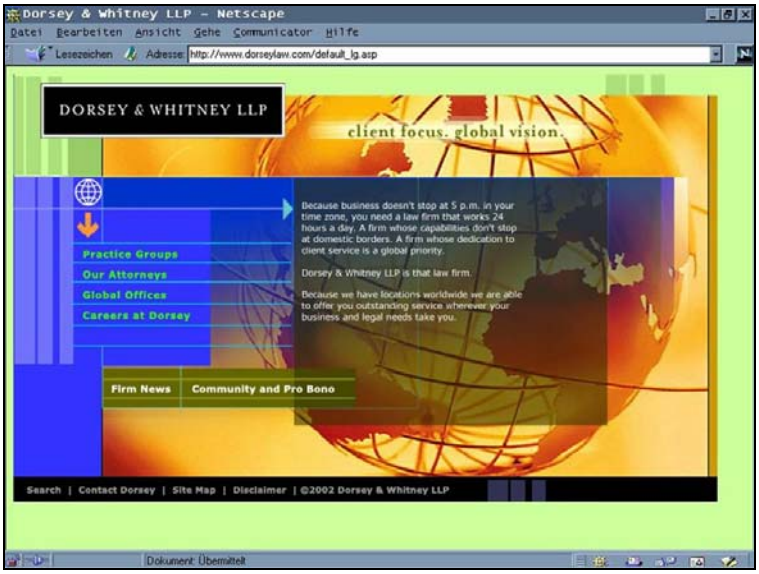
(i) Practical guide to measuring connectivity

It was important that participants in the workshop had a basic knowledge of how the GaWC results are produced. The results are about network connectivity, a measure that describes how well a city is integrated into the world city network.

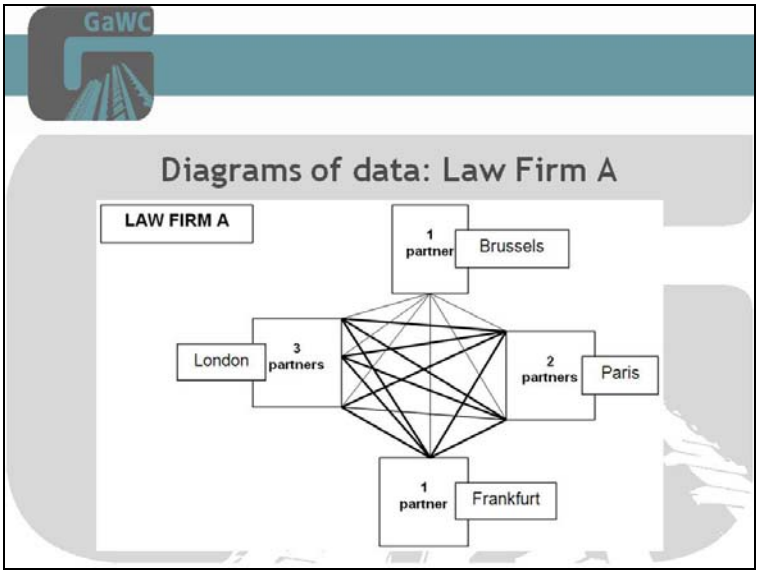
Basically our measure is an aggregation of firms' office networks. Leading business service firms are very proud of their 'globality' and tend to flaunt it on their websites. We use this information to find out how each firm uses each city for its work purposes. We have made up a simple example of three law firms with office networks covering just four cities. At such a small scale diagrams can be drawn to show all the possible intra-firm links between law partners. We refer to these as potential working flows; they can be enacted as and when necessary for carrying out an inter-jurisdictional legal service. The sum of these links between cities constitutes their inter-city relation; the overall sum of links to/from a city defines the measure of a city's network connectivity.

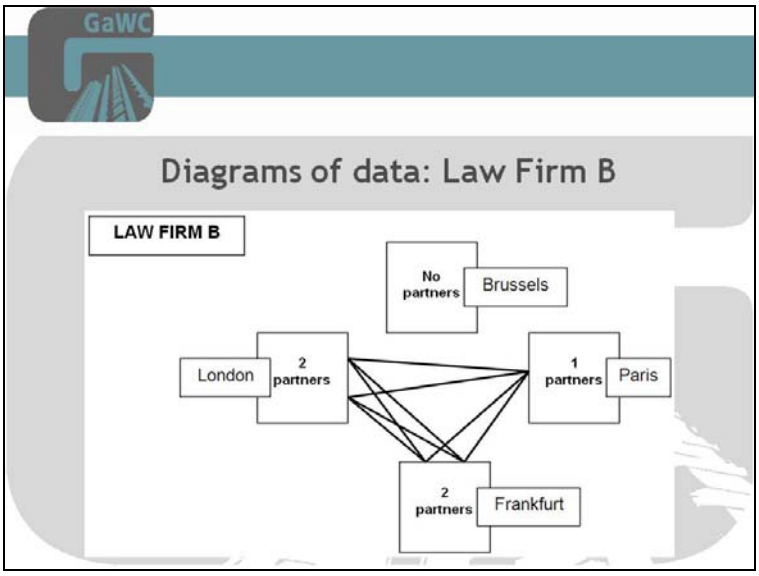
This is a very basic measure of network connectivity and is derived solely from intra-firm links. There are, of course, connections *between* service firms that can be important for inter-city relations but we deal only with links within firms for two reasons. The first is pragmatic: we need to collect a lot of data at the global scale and this is only feasible on a reasonable budget if we limit the data collection to intra-firm patterns that can be easily gleaned from websites. Second and more important, the firms we deal with have their global brands to protect and therefore strive to supply a seamless service to their clients. This is the reason they have developed worldwide office networks; to go to an outside service supplier is to lose quality control.

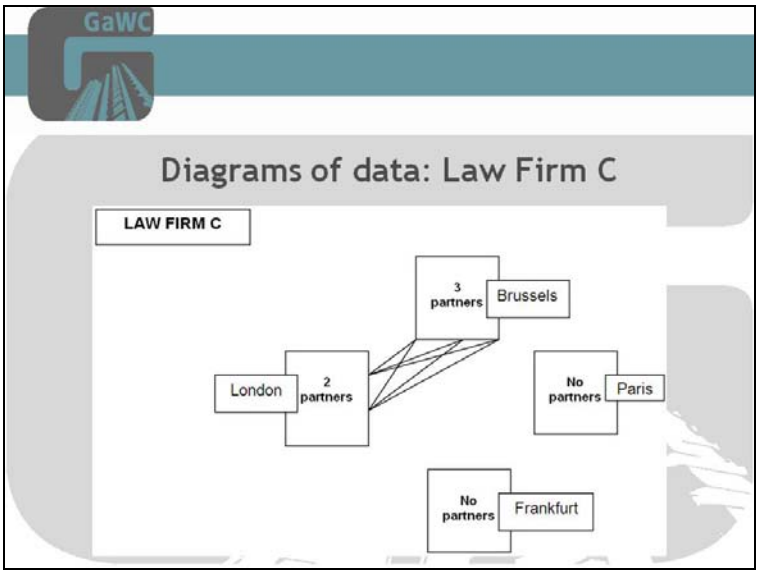




City	Number of partners:		
	Law firm A	Law firm B	Law firm C
London	3	2	2
Paris	2	1	0
Frankfurt	1	2	0
Brussels	1	0	3


GaWC
Diagrams of data: Law Firm A
LAW FIRM A
1 partner
Brussels
London
3 partners
2 partners
Paris
1 partner
Frankfurt


GaWC
Diagrams of data: Law Firm B
LAW FIRM B
No partners
Brussels
London
2 partners
1 partners
Paris
2 partners
Frankfurt

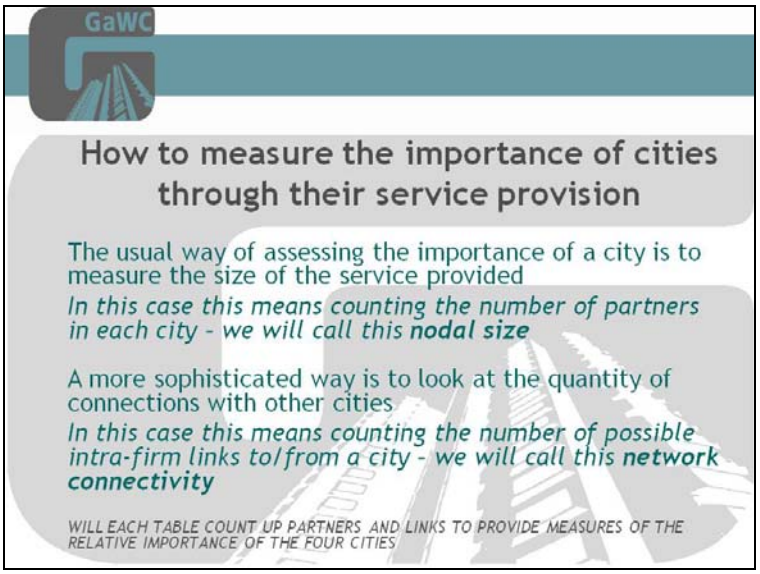

GaWC
Diagrams of data: Law Firm C
LAW FIRM C
3 partners
Brussels
London
2 partners
No partners
Paris
No partners
Frankfurt

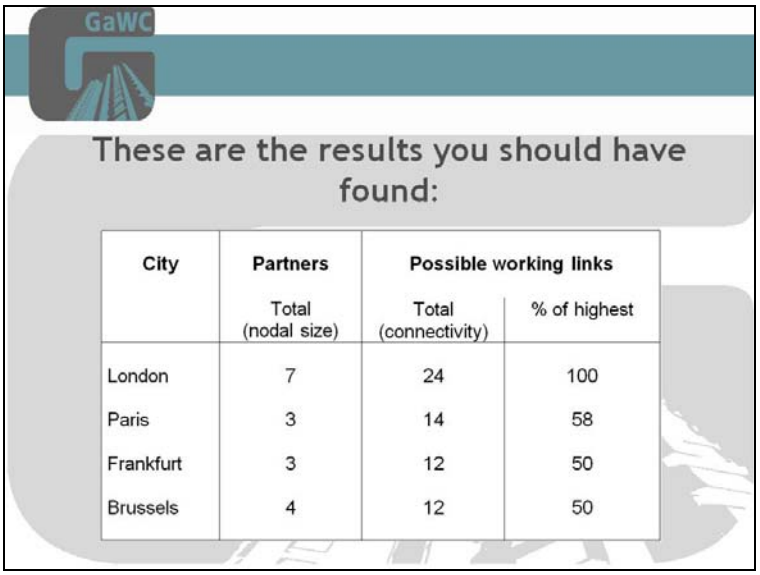
(ii) Table work on basic example

Participants were asked to count up links and thereby find the connectivity of each of the four cities.

These measures of connectivity were compared with nodal size (the number of partners in each city) and subtle differences were discerned. Although London ranks first in each case, the other cities vary in their rankings: for nodal size Brussels is 2nd with Frankfurt and Paris equal 3rd; for connectivity Paris is 2nd and Brussels and Frankfurt are equal 3rd. This is because connectivity is not just about work in the city but also incorporates work linking cities.

Finally the connectivity results were presented as proportions or percentages of the first ranked city's connectivity. This is the way we always present the results so that comparisons can be easily made across different networks of different sizes.





City	Partners	Possible working links	
	Total (nodal size)	Total (connectivity)	% of highest
London	7	24	100
Paris	3	14	58
Frankfurt	3	12	50
Brussels	4	12	50

WORLD CITY NETWORK RESULTS FOR 2008

In order to reinforce understanding of the connectivity we use for the final benchmarking, the basic results from the latest world city network analysis are presented. This is based upon data on the office networks of 175 service firms across 526 cities. The firms were selected from 5 key sectors: financial services, accountancy, advertising, law and management consultancy. For each sector we used rankings from relevant trade sources to find the top 75 financial services firms, and the top 25 firms in the other four services. For each of the 175 firms we investigated their use of 526 cities selected on the basis of our previous studies. Estimates of the work done in each city are coded from 0 (for cities where there is no office) to 5 (indicating the city housing a firm's headquarters). Rules were used to allocate other scores; basically 2 represents a typical office of a firm, 1 is given for a small office with limited services, 3 is for a particularly large office, and a score of 4 indicates an office with responsibilities beyond the city (e.g. housing a regional headquarters). These scores are used in the same way as law partners in the simple case study to derive potential working flows. The result is a huge 175 x 526 matrix of 0s, 1s, 2s, 3s, 4s, and 5s. A slide is provided showing a small portion of this matrix for 2008.

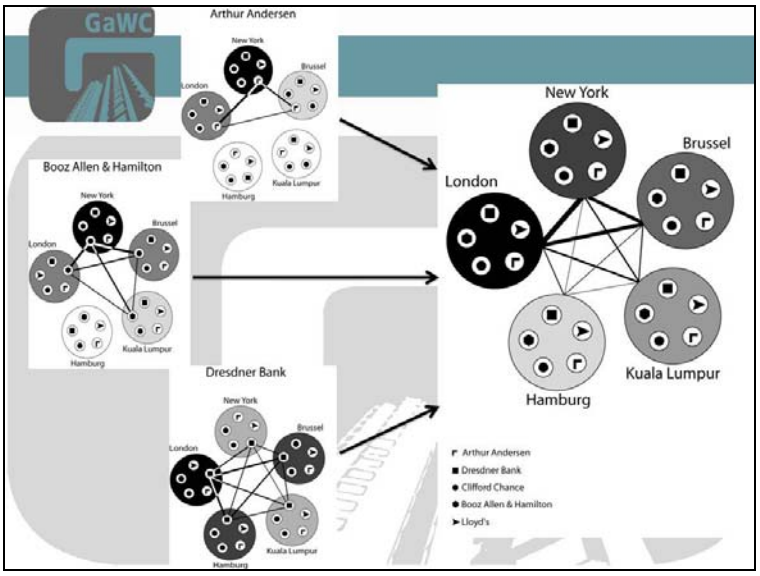
The best way of interpreting this data is as follows:

1. Each column of the matrix represents a firm's locational strategy – the collection of cities where it has offices (non-zeroes) and the variations of work carried out in those offices (1s, 2s, 3s, 4s, and 5s)
2. Each row of the matrix represents the advanced producer services mix available to firms doing business in that city – obviously London will have a richer mix of more important offices than, say, Manchester.

Note that the 2008 matrix is identical in structure to the simple made up law example, but is much larger in size. The law matrix contained 12 pieces of information (3 x 4) whereas the 2008 data matrix consists of 92,050 pieces of information (175 x 526).

Introduction to GaWC results

- We focus on **network connectivity** as a measure of the integration of a city into the world city network
- The difference from the worked example is, of course, **quantity of data:** we investigate the office networks of large numbers of advance producer firms (in financial services, accountancy, advertizing, law, and management consultancy) across many cities worldwide.
- Our results derive from **aggregating many office networks to create a world city network**. We have carried out such aggregation on three occasions although we will concentrate on the latest results



Data: size of matrix

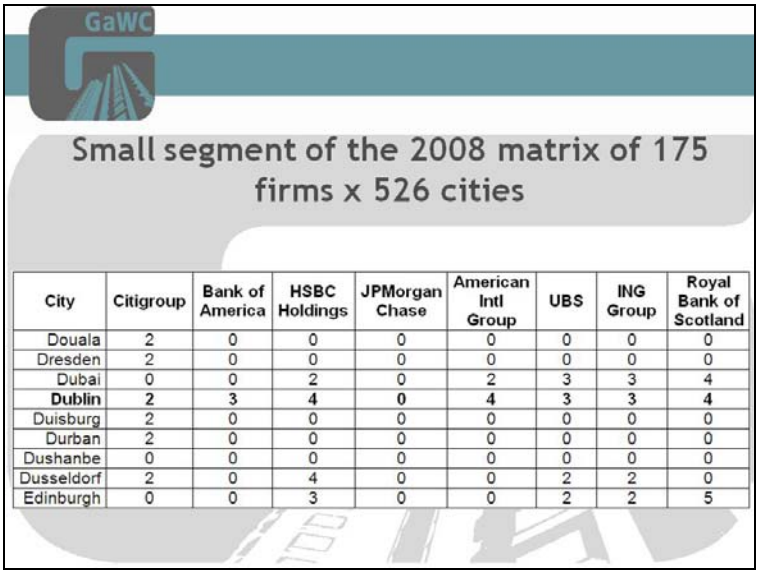
2000:
100 firms in 315 cities
(31,500 pieces of information)

2004:
80 firms in 315 cities
(25,200 pieces of information)

2008:
175 firms in 526 cities
(92,050 pieces of information)

Coding of city offices

5 - headquarter location
4 - important office with extra-city functions
3 - an exceptionally large office
2 - a typical office of the firm
1 - a particularly small office
0 - no office (i.e. no presence in the city)



Small segment of the 2008 matrix of 175 firms x 526 cities

City	Citigroup	Bank of America	HSBC Holdings	JPMorgan Chase	American Intl Group	UBS	ING Group	Royal Bank of Scotland
Douala	2	0	0	0	0	0	0	0
Dresden	2	0	0	0	0	0	0	0
Dubai	0	0	2	0	2	3	3	4
Dublin	**2**	**3**	**4**	**0**	**4**	**3**	**3**	**4**
Duisburg	2	0	0	0	0	0	0	0
Durban	2	0	0	0	0	0	0	0
Dushanbe	0	0	0	0	0	0	0	0
Dusseldorf	2	0	4	0	0	2	2	0
Edinburgh	0	0	3	0	0	2	2	5

(i) Presentation of results: overall and by sectors

Specimen results were displayed for discussion at each table. These consisted of the top 20 cities for overall connectivity (175 firms) and for each sector – financial services (75 firms) and accountancy, advertising, law and management consultancy (25 firms each).

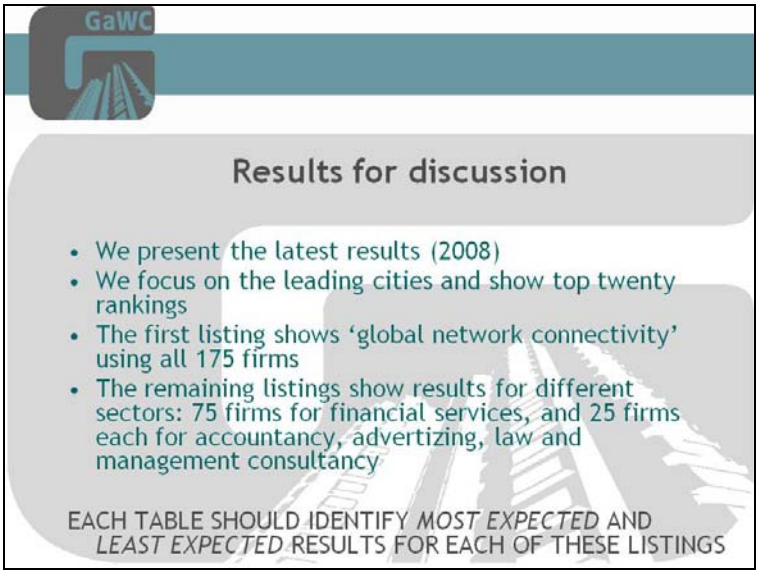
(ii) Table work: discussion of connectivities

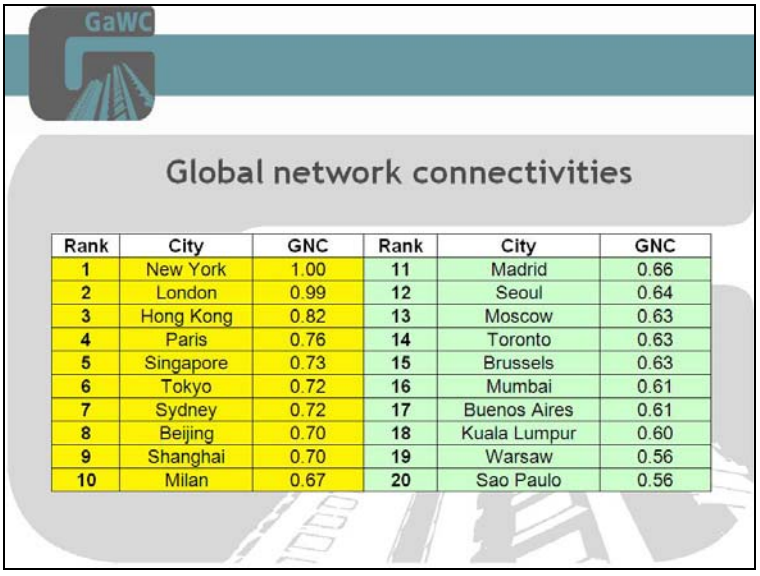
Table work consisted of identifying results that seemed to be obvious and results that were somewhat surprising. The upper echelons of all the rankings seemed to be the least surprising, most notably the dominance of New York and London.

Surprising results tended to focus on European cities and 'third world' cities. Here are the cities that had more than one mention for being a 'surprise'.

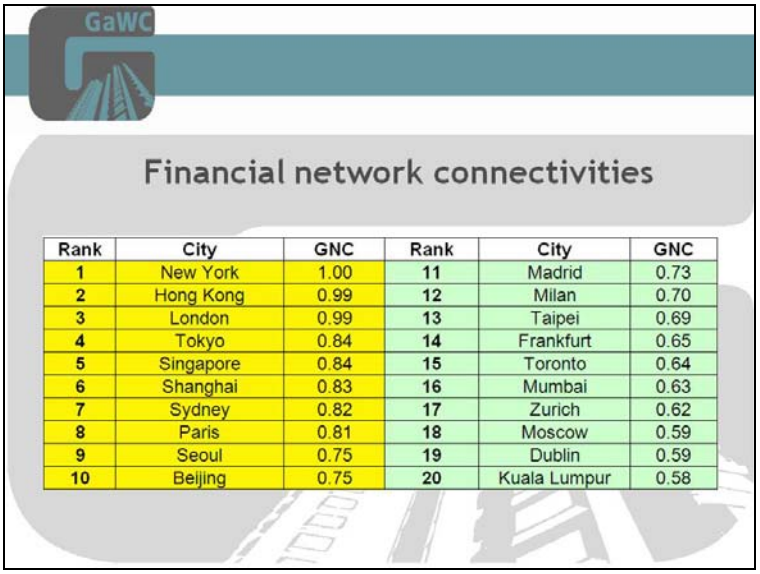
- For the **overall results** the most surprising inclusion was deemed to be Warsaw in 19th place plus Milan in 10th place
- For **financial services** Milan is again seen to be surprisingly high at 12th, Frankfurt surprises at 14th and Sydney surprises at 7th
- For **accountancy** the most surprising results were for Buenos Aires ranked 8th, plus Milan ranked 5th, Tel Aviv ranked 12th and Jakarta ranked 14th
- For **advertising** the surprises were Warsaw ranked 9th, Athens ranked 15th and Madrid ranked 20th
- For **law** the surprises were for Budapest in 20th place, Dusseldorf in 19th place and Singapore in 17th place
- For **management consultancy** the surprises were for Mexico City in 15th place, Milan in 20th place and Rome in 14th place

The general pattern of these results is quite straightforward: positions of US and Pacific Asian cities are accepted but doubt is expressed for the significance of European (eastern and southern only) and Latin American cities. What this exercise suggests is that participants have a distinctive geographical bias for estimating the importance of cities as service centres in the world city network.

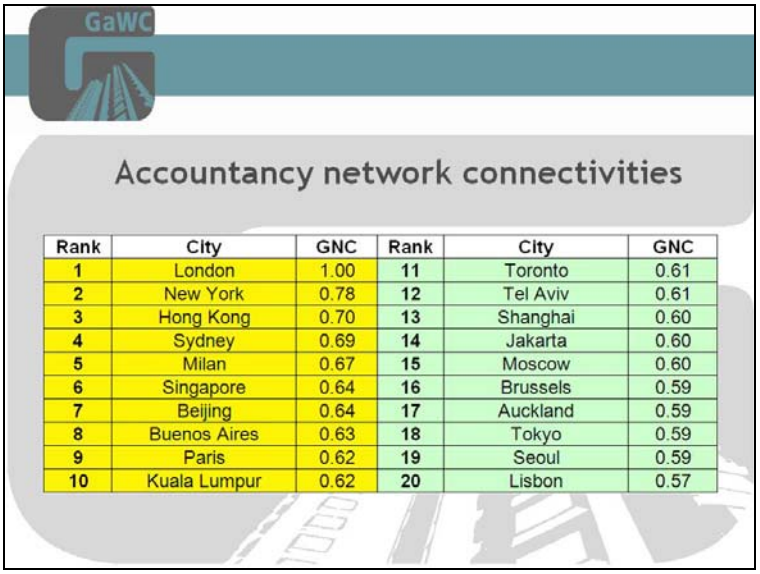




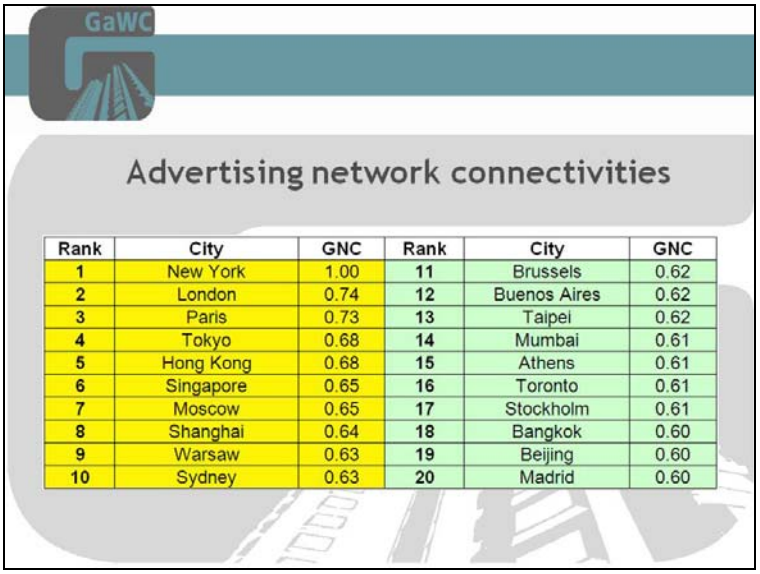
Rank	City	GNC	Rank	City	GNC
1	New York	1.00	11	Madrid	0.66
2	London	0.99	12	Seoul	0.64
3	Hong Kong	0.82	13	Moscow	0.63
4	Paris	0.76	14	Toronto	0.63
5	Singapore	0.73	15	Brussels	0.63
6	Tokyo	0.72	16	Mumbai	0.61
7	Sydney	0.72	17	Buenos Aires	0.61
8	Beijing	0.70	18	Kuala Lumpur	0.60
9	Shanghai	0.70	19	Warsaw	0.56
10	Milan	0.67	20	Sao Paulo	0.56



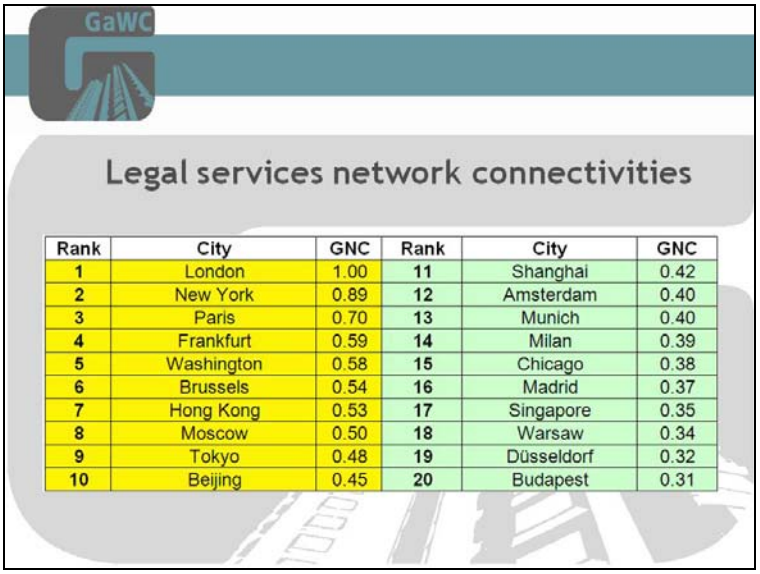
Rank	City	GNC	Rank	City	GNC
1	New York	1.00	11	Madrid	0.73
2	Hong Kong	0.99	12	Milan	0.70
3	London	0.99	13	Taipei	0.69
4	Tokyo	0.84	14	Frankfurt	0.65
5	Singapore	0.84	15	Toronto	0.64
6	Shanghai	0.83	16	Mumbai	0.63
7	Sydney	0.82	17	Zurich	0.62
8	Paris	0.81	18	Moscow	0.59
9	Seoul	0.75	19	Dublin	0.59
10	Beijing	0.75	20	Kuala Lumpur	0.58



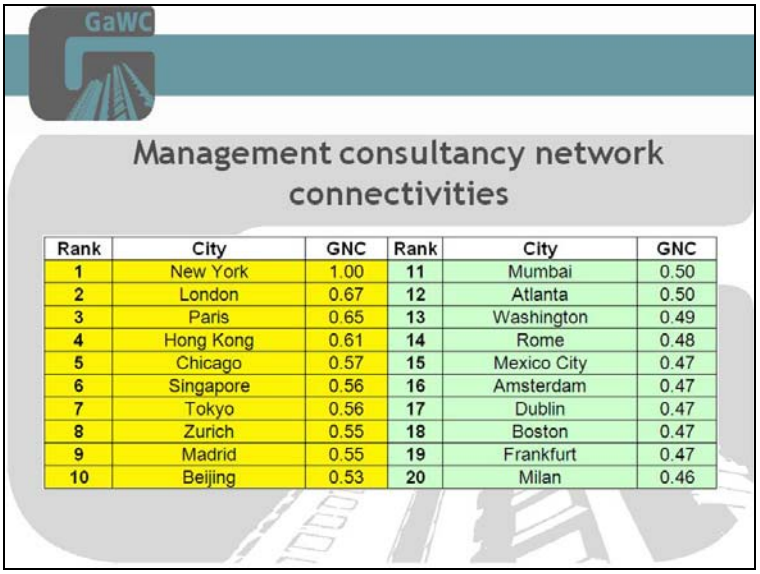
Rank	City	GNC	Rank	City	GNC
1	London	1.00	11	Toronto	0.61
2	New York	0.78	12	Tel Aviv	0.61
3	Hong Kong	0.70	13	Shanghai	0.60
4	Sydney	0.69	14	Jakarta	0.60
5	Milan	0.67	15	Moscow	0.60
6	Singapore	0.64	16	Brussels	0.59
7	Beijing	0.64	17	Auckland	0.59
8	Buenos Aires	0.63	18	Tokyo	0.59
9	Paris	0.62	19	Seoul	0.59
10	Kuala Lumpur	0.62	20	Lisbon	0.57



Rank	City	GNC	Rank	City	GNC
1	New York	1.00	11	Brussels	0.62
2	London	0.74	12	Buenos Aires	0.62
3	Paris	0.73	13	Taipei	0.62
4	Tokyo	0.68	14	Mumbai	0.61
5	Hong Kong	0.68	15	Athens	0.61
6	Singapore	0.65	16	Toronto	0.61
7	Moscow	0.65	17	Stockholm	0.61
8	Shanghai	0.64	18	Bangkok	0.60
9	Warsaw	0.63	19	Beijing	0.60
10	Sydney	0.63	20	Madrid	0.60



Rank	City	GNC	Rank	City	GNC
1	London	1.00	11	Shanghai	0.42
2	New York	0.89	12	Amsterdam	0.40
3	Paris	0.70	13	Munich	0.40
4	Frankfurt	0.59	14	Milan	0.39
5	Washington	0.58	15	Chicago	0.38
6	Brussels	0.54	16	Madrid	0.37
7	Hong Kong	0.53	17	Singapore	0.35
8	Moscow	0.50	18	Warsaw	0.34
9	Tokyo	0.48	19	Düsseldorf	0.32
10	Beijing	0.45	20	Budapest	0.31



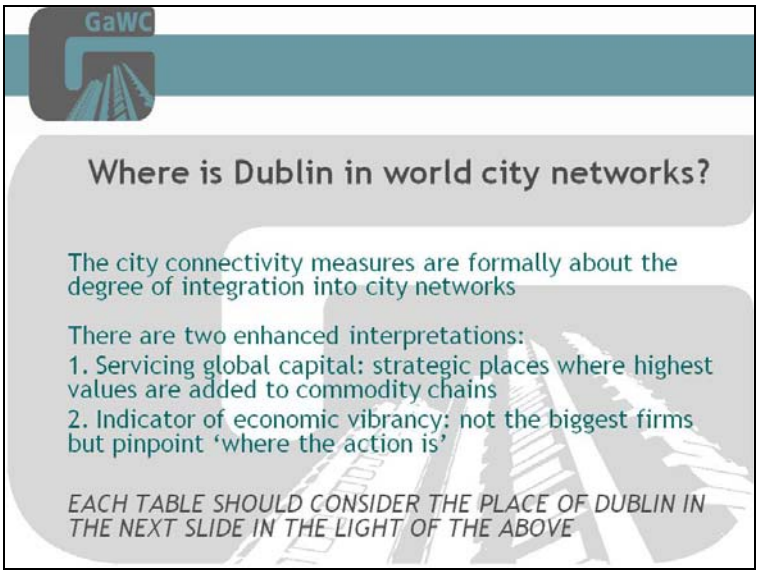
Rank	City	GNC	Rank	City	GNC
1	New York	1.00	11	Mumbai	0.50
2	London	0.67	12	Atlanta	0.50
3	Paris	0.65	13	Washington	0.49
4	Hong Kong	0.61	14	Rome	0.48
5	Chicago	0.57	15	Mexico City	0.47
6	Singapore	0.56	16	Amsterdam	0.47
7	Tokyo	0.56	17	Dublin	0.47
8	Zurich	0.55	18	Boston	0.47
9	Madrid	0.55	19	Frankfurt	0.47
10	Beijing	0.53	20	Milan	0.46

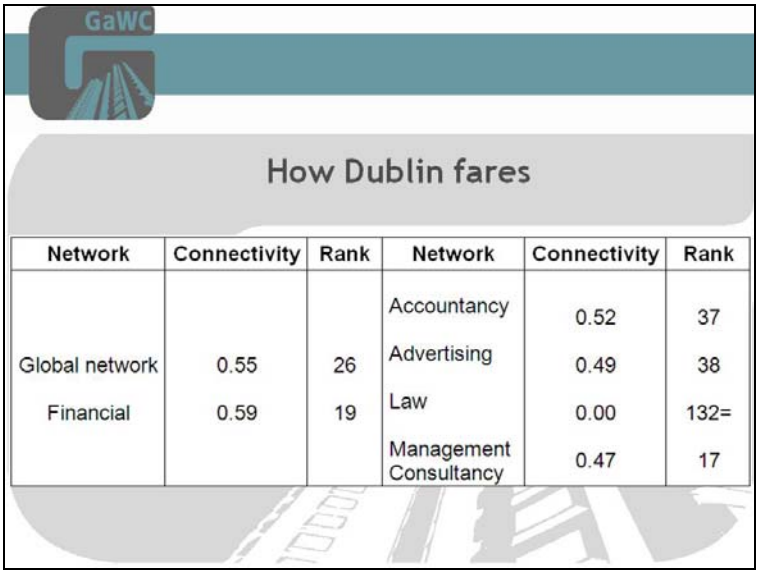
(iii) Table work: where is Dublin in world city networks?

The next exercise was to bring the 2008 results into focus on Dublin.

Dublin's connectivity and world rank were provided for overall connectivity and for the four sectors separately. Participants were invited to discuss what these results indicated for Dublin's position in the world city network.

Discussion focused on the expected high rankings in finance and consultancy but the key anomaly was the result for law firms. Legal services are the most concentrated of the services and they are present in just 131 of the 526 cities in the study. Dublin with no recorded service in this sector (i.e. no offices for any of the top 25 global law firms) is a surprise perhaps reflecting a location in the shadow of London (which dominates this sector).





Network	Connectivity	Rank	Network	Connectivity	Rank
Global network	0.55	26	Accountancy	0.52	37
Financial	0.59	19	Advertising	0.49	38
			Law	0.00	132=
			Management Consultancy	0.47	17

WHO ARE DUBLIN'S PEERS?

We use 2008 results to define Dublin's peers.

We make two suggestions for exclusion: (i) US cities and (ii) 'third world' cities. This is because each category relates to globalization in a manner very different from Dublin. Several studies have shown that US cities are quite distinctive in their globalization: this was the message of the unusual diagram used to begin the workshop. The reason seems to be that the USA has been the prime originator of globalization and these business services are more strongly embedded in this country than elsewhere. Thus non-US service firms find it very difficult to enter and prosper in the US market, many limiting their American presence to a New York office only. 'Third world' cities are different in a very different way. Large-scale rural-urban migration over the last 50 years or so has created very large cities, referred to as mega-cities, with a host of inherent and pressing problems of poverty, health and environment not encountered elsewhere. Thus are US and 'third world' cities unlikely benchmarks for Dublin.

From the initial table work we can expect European capitals plus English-speaking (but not US) cities to be likely candidates.

We define Dublin's peers in three related ways. With respect to Dublin's results theses are (i) cities with similar levels of connectivity, (ii) cities with a similar mix of sector connectivity levels, and (iii) cities with similar pattern of linkages to other cities.

(i) Connectivities

We measure similarity to Dublin in connectivity levels as follows:

1. For overall connectivity we identify three levels of connectivity: those cities within 0.02 of Dublin's connectivity , those between 0.02 and 0.05, and those between 0.05 and 0.1. These are scored 3, 2, and 1 respectively.
2. For connectivities in each sector we identify two levels of connectivity: those cities within 0.02 of Dublin's connectivity, and those cities between 0.02 and 0.05. These are scored 2 and 1 respectively. However we omit law as a special case: there are 394 other cities that share Dublin's zero connectivity!

These results are summed city by city (maximum = 3+2+2+2+2 = 11). 26 cities scoring 3 or above are treated as potential Dublin peers. These are then divided into three groups: (A) cities scoring 7 or 8; (B) cities scoring 4 or 5; and (C) cities scoring 3.

(ii) Sector profiles

We measure similarity to Dublin in the sector mix as follows:

1. For each city we compute for each sector the percentage of connectivity it contributes to the city's overall connectivity.
2. These percentages are compared to Dublin's sector percentages and the differences are summed. Obviously a city with percentages the same as Dublin's will score zero. In practice the smallest sum recorded was 6.

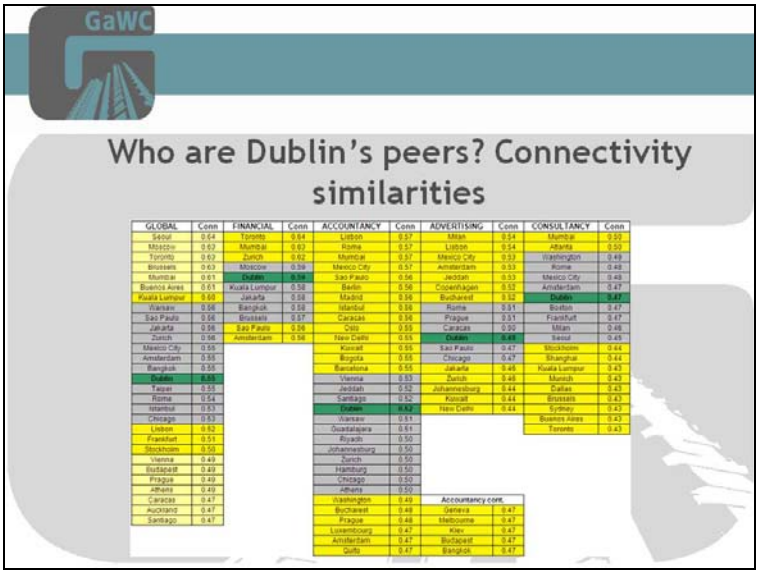
40 cities with differences of 20 or below are treated as potential Dublin peers. These are divided into three groups as follows: (A) differences from Dublin between 6 and 10; (B) differences between 10 and 15; and (C) differences between 16 and 20.

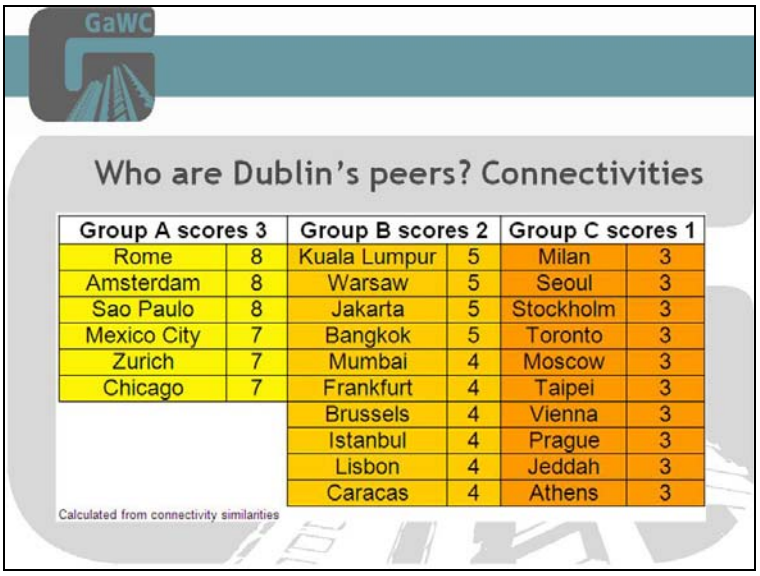
(iii) Hinterworlds

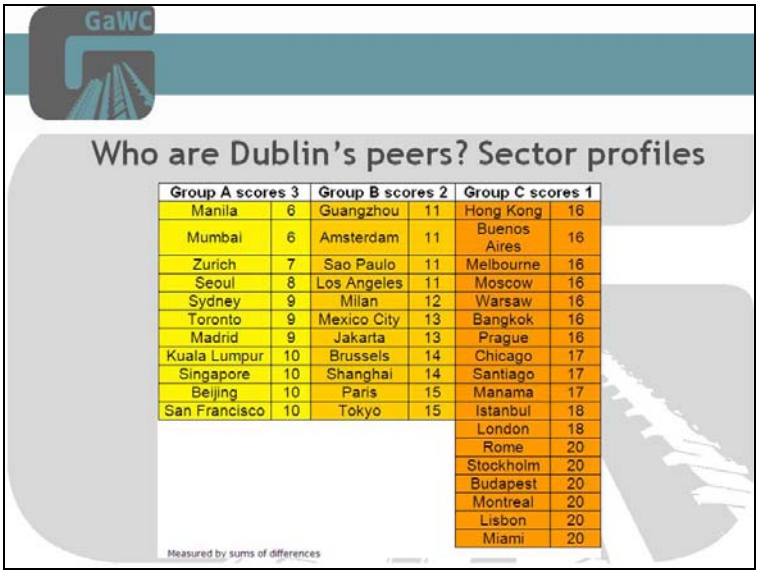
We use the term hinterworld to describe a city's links to other cities in the world city network. In computing network connectivities, links to all other cities in the data are measured. Thus we can define Dublin's hinterworld as its 525 links to other cities in the 2008 data.

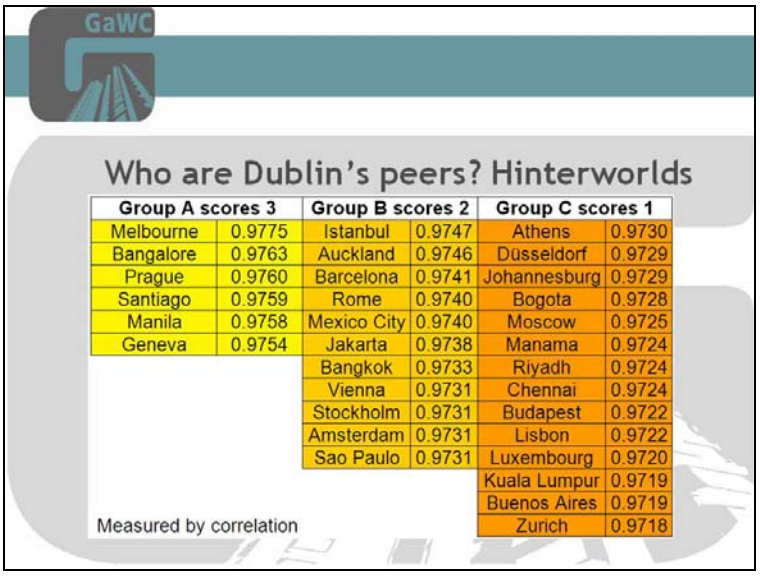
We measure hinterworld similarities to Dublin by a simple correlation of Dublin's against each other city's links. The correlations are very high because the world city network is very strongly structured: every city's two strongest links are with New York and London.

The 31 cities with the highest connections to Dublin's hinterworld are identified as potential Dublin peers. These are divided into A, B and C groups by level of correlation.


GaWC
Who are Dublin's peers? Connectivity similarities
GLOBAL Conn
Seoul 0.64
Moscow 0.62
Toronto 0.62
Brussels 0.62
Mumbai 0.61
Buenos Aires 0.61
Kuala Lumpur 0.60
Warsaw 0.60
Sao Paulo 0.60
Jakarta 0.60
Zurich 0.60
Mexico City 0.60
Amsterdam 0.60
Bangkok 0.60
Dublin 0.59
Taipei 0.58
Roma 0.54
Istanbul 0.53
Chicago 0.53
Lisbon 0.52
Frankfurt 0.51
Stockholm 0.50
Vienna 0.49
Budapest 0.49
Prague 0.49
Athens 0.49
Caracas 0.47
Auckland 0.47
Santiago 0.47
FINANCIAL Conn
Toronto 0.64
Mumbai 0.63
Zurich 0.62
Moscow 0.59
Dublin 0.59
Kuala Lumpur 0.58
Jakarta 0.58
Bangkok 0.58
Brussels 0.57
Sao Paulo 0.56
Amsterdam 0.56
ACCOUNTANCY Conn
Lisbon 0.57
Roma 0.57
Mumbai 0.57
Mexico City 0.57
Sao Paulo 0.56
Berlin 0.56
Madrid 0.56
Istanbul 0.56
Caracas 0.56
Oslo 0.55
New Delhi 0.55
Kuwait 0.55
Bogota 0.55
Barcelona 0.55
Vienna 0.53
Jeddah 0.52
Santiago 0.52
Dublin 0.52
Warsaw 0.51
Guadalajara 0.51
Riyadh 0.50
Johannesburg 0.50
Zurich 0.50
Hamburg 0.50
Chicago 0.50
Athens 0.50
Washington 0.49
Bucharest 0.48
Prague 0.48
Luxembourg 0.47
Amsterdam 0.47
Delhi 0.47
ADVERTISING Conn
Milan 0.54
Lisbon 0.54
Mexico City 0.53
Amsterdam 0.53
Jeddah 0.53
Copenhagen 0.53
Bucharest 0.52
Roma 0.51
Prague 0.51
Caracas 0.50
Dublin 0.49
Sao Paulo 0.47
Chicago 0.47
Zurich 0.46
Johannesburg 0.44
Kuwait 0.44
New Delhi 0.44
Accountancy cont.
Geneva 0.47
Melbourne 0.47
Kiev 0.47
Budapest 0.47
Bangkok 0.47
CONSULTANCY Conn
Mumbai 0.50
Atlanta 0.50
Washington 0.49
Roma 0.48
Mexico City 0.48
Amsterdam 0.47
Dublin 0.47
Boston 0.47
Frankfurt 0.47
Milan 0.46
Seoul 0.45
Stockholm 0.44
Shanghai 0.44
Kuala Lumpur 0.43
Munich 0.43
Dallas 0.43
Brussels 0.43
Sydney 0.43
Buenos Aires 0.43
Toronto 0.43


GaWC
Who are Dublin's peers? Connectivities
Group A scores 3
Rome 8
Amsterdam 8
Sao Paulo 8
Mexico City 7
Zurich 7
Chicago 7
Group B scores 2
Kuala Lumpur 5
Warsaw 5
Jakarta 5
Bangkok 5
Mumbai 4
Frankfurt 4
Brussels 4
Istanbul 4
Lisbon 4
Caracas 4
Group C scores 1
Milan 3
Seoul 3
Stockholm 3
Toronto 3
Moscow 3
Taipei 3
Vienna 3
Prague 3
Jeddah 3
Athens 3
Calculated from connectivity similarities


GaWC
Who are Dublin's peers? Sector profiles
Group A scores 3
Manila 6
Mumbai 6
Zurich 7
Seoul 8
Sydney 9
Toronto 9
Madrid 9
Kuala Lumpur 10
Singapore 10
Beijing 10
San Francisco 10
Group B scores 2
Guangzhou 11
Amsterdam 11
Sao Paulo 11
Los Angeles 11
Milan 12
Mexico City 13
Jakarta 13
Brussels 14
Shanghai 14
Paris 15
Tokyo 15
Group C scores 1
Hong Kong 16
Buenos Aires 16
Melbourne 16
Moscow 16
Warsaw 16
Bangkok 16
Prague 16
Chicago 17
Santiago 17
Manama 17
Istanbul 18
London 18
Rome 20
Stockholm 20
Budapest 20
Montreal 20
Lisbon 20
Miami 20
Measured by sums of differences


GaWC
Who are Dublin's peers? Hinterworlds
Group A scores 3
Melbourne 0.9775
Bangalore 0.9763
Prague 0.9760
Santiago 0.9759
Manila 0.9758
Geneva 0.9754
Group B scores 2
Istanbul 0.9747
Auckland 0.9746
Barcelona 0.9741
Rome 0.9740
Mexico City 0.9740
Jakarta 0.9738
Bangkok 0.9733
Vienna 0.9731
Stockholm 0.9731
Amsterdam 0.9731
Sao Paulo 0.9731
Group C scores 1
Athens 0.9730
Düsseldorf 0.9729
Johannesburg 0.9729
Bogota 0.9728
Moscow 0.9725
Manama 0.9724
Riyadh 0.9724
Chennai 0.9724
Budapest 0.9722
Lisbon 0.9722
Luxembourg 0.9720
Kuala Lumpur 0.9719
Buenos Aires 0.9719
Zurich 0.9718
Measured by correlation

BENCHMARKING RESULTS FOR DUBLIN

We are now in a position to use the identifications of Dublin's peers to suggest a set of benchmarking cities for Dublin. The three sets of Dublin peer results were combined by scoring 3, 2 and 1 for each city in each of the A, B and C groups. Thus the maximum score is 9; in practice the highest score recorded was 7.

(i) 26 qualifying cities, 13 relevant cities

26 cities with scores of 2 or more were identified as possible cities against which Dublin could be benchmarked. Using the prior suggestion for omitting US cities and 'third world' cities provides us with a final set of 13 cities that are eminently suitable for benchmarking Dublin. These are in rank order:

1= Amsterdam, Zurich
3 Rome
4 Prague
5= Brussels, Lisbon, Prague, Toronto
9= Vienna, Warsaw
11= Athens, Budapest, Milan

(ii) Final table work: benchmarking discussion

The final table work considered this result in comparison with the initial table work suggestions. One key difference is that no UK cities appear in the benchmarking list – this reflects Dublin being able to escape from London's powerful influence/shadow in a way that is not possible for UK cities. Notice also that only one English-speaking city is featured (Toronto). Compared to the initial table northern European cities are replaced by eastern European cities – this possibly reflects the particular growth of both Dublin and eastern Europe with the onset of globalization after 1990. The key city missing from the new benchmarking list is Barcelona.

There was also discussion about whether the exclusion of US cities and 'third world' cities was appropriate. For US cities in particular, it was acknowledged that the close relations between Ireland and the USA (traditionally culturally, more recently because of investment) might require some revision of this exclusion. However the point being made by GaWC is that that as economic nodes in the world city network Dublin is much more like, say, Amsterdam or Milan, than any US city. In fact, of the 13 cities qualifying for benchmarking but deemed to be not relevant, only one was from the USA, and 12 were 'third world' cites.

The final discussion merged into the final remarks by the Director of International Relations and Research. The following are the key points:

- the importance of business firms to Dublin's future trajectory
- within the Dublin economy there are both indigenous and foreign firms with a vested interest in Dublin's success
- these firms hold a much relevant knowledge concerning how Dublin relates to the world economy in their respective sectors
- this is important for Dublin in its weaving a path between general diversification and finding niche areas in which to expand
- returning to the complexity of cities, monitoring of economic changes becomes vital for policy makers: knowledge within firms is essential for this
- it makes sense for the City Council to convert its existing links with internationally-linked firms into a more formal structure – a Global Business Council - with a precise remit reflecting the GaWC approach as exemplified in the Workshop.

(iii) GaWC recommendations

These derive from the GaWC position that it is firms that link cities together and in the process generate vibrant successful cities. Such economic links are much more important than inter-governmental links, either local or national. So what is the role of local government – Dublin City Council – in this?

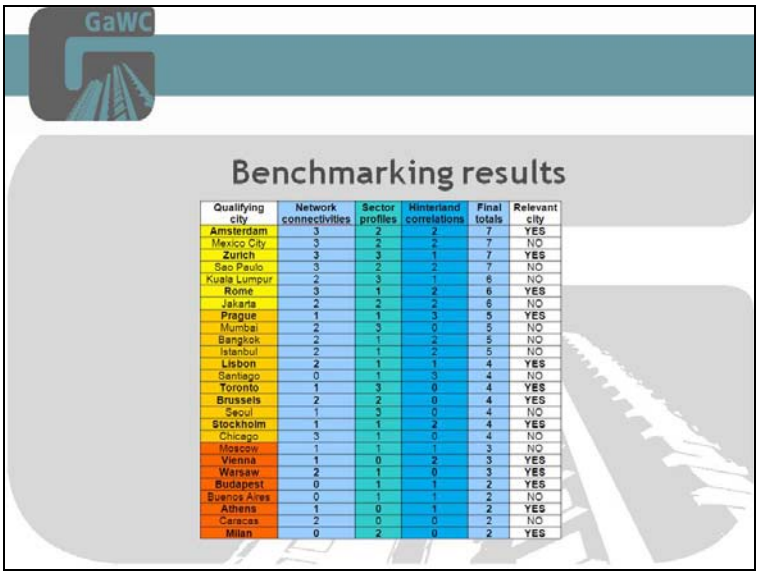
If there were to be a 'Global Business Council' as broached above, it would NOT become a platform for business to lobby to Council for subsidies or obtain privileged access in general to policymaking. Obviously subsidies and other policies can attract new business but in the long run cities cannot simply buy success (cf. Dubai). To be sure the role of the public sector is to facilitate economic success but in a much more subtle way than 'giving business what it wants'. Selectivity is crucial and this requires policies based upon a very rich and current knowledge base. Customized knowledge is the key to successful public sector facilitation of economic success. The purpose a Global Business Council would be to facilitate the City Council in its production of suitable economic data.

We live in a world that has been characterized as 'global network society' where the key commodity is knowledge in both the private and public spheres. In places as complex as cities within this new volatile world, the tradition in planning to resort to models that simplify what's happening is now entirely inappropriate. Rather the basic approach is quite modest: to monitor economic change in order to inform policymaking. Public policy decisions are then about choosing which economic changes to facilitate and augment and which to allow to proceed undisturbed. In a world that is very hard to predict, the complexity has to be respected but not be allowed to overwhelm our thinking. For city councils this requires detailed and dynamic information on economic changes

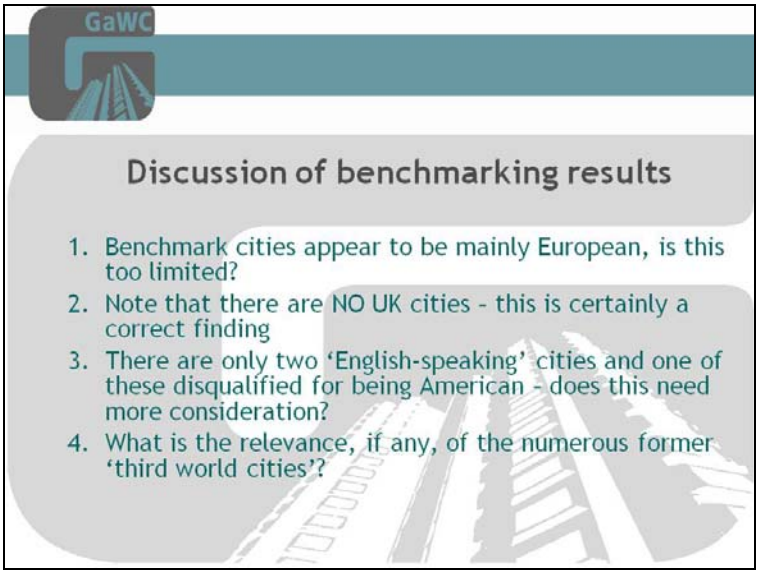
happening in their city. Monitoring requires a continuous policy of purposive data gathering that will, for instance, pick up changes that are usually 'under the radar' of more general and intermittent data collection. This is a twenty first century approach to public sector data collection using the latest electronic means.

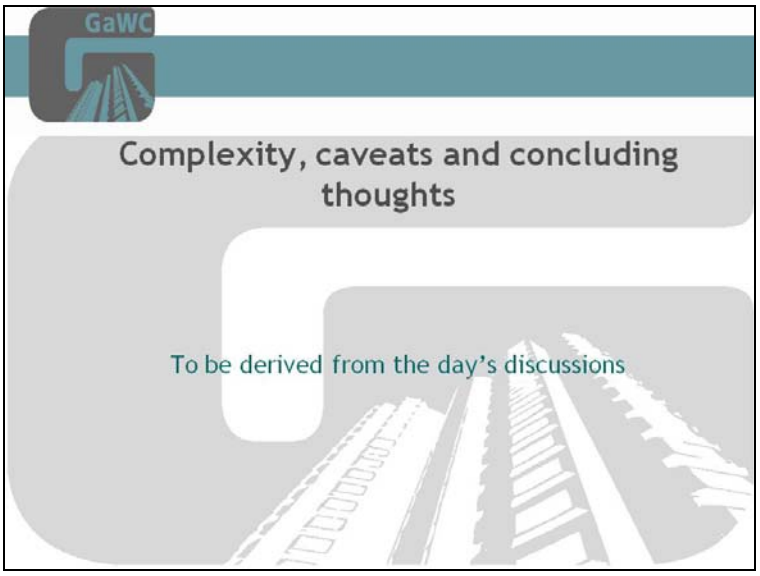
This approach of prioritizing monitoring was first developed for our Abu Dhabi workshop and is still under consideration by Abu Dhabi Council for Economic Development. But we have moved on since then and are negotiating for a Chinese city partner to pioneer this methodology. The current situation is that we expect to begin with Qingdao as our "Global Research City" in early 2011. Still under development, the method will involve a rolling (monthly?) electronic survey of a very large number of firms in the city, immediate electronic analysis interpreted by a city/GaWC analytic team, who respond by immediate revision of the survey content to incorporate any new surprises. A high-level panel will regularly appraise the results (six monthly?). We will be seeking funds for a European city comparison study (possibly Newcastle because of its recent OECD study). We will also be looking to carry out a set of secondary studies that learn from the two primary studies on how to apply this methodology on a much more affordable basis. We would be delighted if Dublin City Council wanted to be part of this research/policy programme.

In the more immediate term, we are currently in a new phase of world city network data collection (again in collaboration with CASS, Beijing). The new data should be available towards the end of 2010 and will complement the 2008 data in a 'before and after' sequence with respect to the global credit crunch and associated economic crisis. When we have 2008-10 change findings (for 526 cities including Dublin and its designated peers) we are willing to again share our results with you.



Qualifying city	Network connectivities	Sector profiles	Hinterland correlations	Final totals	Relevant city
Amsterdam	3	2	2	7	YES
Mexico City	3	2	2	7	NO
Zurich	3	3	1	7	YES
Sao Paulo	3	2	2	7	NO
Kuala Lumpur	2	3	1	6	NO
Rome	3	1	2	6	YES
Jakarta	2	2	2	6	NO
Prague	1	1	3	5	YES
Mumbai	2	3	0	5	NO
Bangkok	2	1	2	5	NO
Istanbul	2	1	2	5	NO
Lisbon	2	1	1	4	YES
Santiago	0	1	3	4	NO
Toronto	1	3	0	4	YES
Brussels	2	2	0	4	YES
Seoul	1	3	0	4	NO
Stockholm	1	1	2	4	YES
Chicago	3	1	0	4	NO
Moscow	1	1	1	3	NO
Vienna	1	0	2	3	YES
Warsaw	2	1	0	3	YES
Budapest	0	1	1	2	YES
Buenos Aires	0	1	1	2	NO
Athens	1	0	1	2	YES
Caracas	2	0	0	2	NO
Milan	0	2	0	2	YES


GaWC
Discussion of benchmarking results
1. Benchmark cities appear to be mainly European, is this too limited?
2. Note that there are NO UK cities - this is certainly a correct finding
3. There are only two 'English-speaking' cities and one of these disqualified for being American - does this need more consideration?
4. What is the relevance, if any, of the numerous former 'third world cities'?


GaWC
Complexity, caveats and concluding thoughts
To be derived from the day's discussions