



Growing the
European Urban
System

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GROWING THE EUROPEAN URBAN SYSTEM

In this paper I first want to suggest that there are two alternative ways of looking at cities and city systems, both valid, which need to be combined. Then I look at the performance of the European urban system in the last quarter century. From this, starting from the European Spatial Development Perspective, I want to suggest some lines of policy, with particular reference to the impending enlargement of the Union.

Alternative Views of City Systems

There are two alternative ways of looking at cities.

The Urban Hierarchy

The first is in terms of a hierarchy of cities – a tradition that goes all the way back to Christaller's classic work of 70 years ago (Christaller 1966 (1933)). But it was developed for a very different age, and it is no longer an adequate description of the European hierarchy: it is dominated by small towns, some of which have ceased to operate as service centres at all, and it totally omits higher-level centres. We therefore need a substitute.

The urban system has been profoundly affected by the changes about which all geographers write: the increasing *globalization* of the world; and the *informationalization* of the economy, the progressive shift of advanced economies from goods production to information handling, whereby the great majority of the workforce no longer deal with material outputs. Manuel Castells has described this as the transition to the informational mode of production: a shift as momentous, in his view, as the shift from an agrarian to an industrial economy in the eighteenth and nineteenth centuries. In typical advanced countries, already by 1991 between three-fifths and three-quarters of all employment was in services, while between one-third and one-half was in information handling; typically these proportions have doubled since the 1920s (Castells 2000, 304-324).

These processes have increased the importance of cities at the very top of the hierarchy, the so-called world cities or global cities. These are not a new phenomenon. Patrick Geddes already recognized World Cities and defined them, as long ago as 1915, in *Cities in Evolution* (Geddes 1915); in 1966 I published a book entitled *The World Cities* (Hall 1966), defining them as cities that performed multiple roles: as centres of political power, both national and international, and of the organizations related to government; centres of national and international trade, acting as entrepôts for their countries and sometimes for neighbouring countries also; hence, centres of banking, insurance and related financial services; centres of advanced professional activity of all kind, in medicine, in law, in the higher learning, and the application of scientific knowledge to technology; centres of information gathering and diffusion, through publishing and the mass media; centres of conspicuous consumption, both of luxury goods for the minority and mass-produced goods for the multitude; centres of arts, culture and entertainment, and of the ancillary activities that catered for them (Hall 1966, 1984).

In the 1980s John Friedmann was the first to deepen this analysis, by suggesting that processes of globalization were resulting in a global hierarchy, in which London, New York and Tokyo were "global financial articulations", while Miami, Los Angeles, Frankfurt, Amsterdam and Singapore were "multinational articulations", and Paris, Zurich, Madrid, Mexico City, São Paulo, Seoul and Sydney were "important national articulations", all forming a "network" (Friedmann 1986; Friedmann and Wolff 1982; q. Smith and Timberlake 1995, 294). And Saskia Sassen has developed the point that the locus of production of advanced business or producer services becomes increasingly disarticulated from that of production:

The spatial dispersion of production, including its Internationalization, has contributed to the growth of centralized service nodes for the management and regulation of the new space economy ... To a considerable extent, the weight of economic activity over the last fifteen years has shifted from production places such as Detroit and Manchester, to centers of finance and highly specialized services (Sassen 1991).

Thus there are contradictory trends: as production disperses worldwide, services increasingly concentrate into a relatively few trading cities, both the well-known "global cities" and a second rung of about twenty cities immediately below these, which we can distinguish as "sub-global". These cities are centres for financial services (banking, insurance) and headquarters of major production companies; most are also seats of the major world-power governments (King 1990, Sassen 1991). A recent study of four world cities (G.B. Government Office for London, 1996) distinguished four key groups of advanced service activity:

Finance and Business Services: including banking and insurance, commercial business services such as law, accountancy, advertising and public relations, and design services including architecture, civil engineering, industrial design and fashion;

"Power and Influence" (or "Command and Control"): national government, supra-national organisations like UNESCO or OECD, and headquarters of major organisations including transnational corporations;

Creative and Cultural Industries: including live performing arts (theatre, opera, ballet, concerts), museums and galleries and exhibitions, print and electronic media;

Tourism: including both business and leisure tourism, and embracing hotels, restaurants, bars, entertainment, and transportation services.

All these are service industries of the process differs somewhat from sector to sector, but often it involves centrally involving the generation, transmission and consumption of information. The nature a very high degree of immediacy. Whether one considers the investment analyst trading shares, or the lawyer offering advice, or the board of a major corporation in a meeting, or the television producer at work on a show, or the tour guide taking a group sightseeing, specialised information is being processed and transmitted by highly-qualified people in real time. Further, much though not all of this activity involves face-to-face exchange of information, either as a central feature or as an essential ancillary (as when the stock analyst has lunch and picks up important market information). Therefore, an extremely strong force of agglomeration operates throughout these sectors.

It goes almost without saying that these categories tend to be highly synergistic with each other, and that many activities fit effectively into the interstices between them: thus hotels and conference centres and exhibition centres are simultaneously business services and part of tourism; museums and galleries are creative/cultural but also parts of tourism; advertising is both creative and a business service; and so on. For this reason, not only does each of the sectors have strong agglomerative trends set by the need to process and exchange information, but there are also strong agglomerative forces as between the four main sectors.

Work by the GaWC (Global Analysis of World Cities) group at the University of Loughborough (Beaverstock, Taylor and Smith 1999) goes a long way to recognising these trends and developing a new urban hierarchy: it identifies a "global hierarchy" of cities, based essentially on the relationships between different units engaged in delivering advanced services like law and accountancy. In it, European cities are prominently represented and, of the top six cities, four are in the so-called North West Metropolitan Area of Europe, with London at the top. This is further supported by recent work on the global urban hierarchy based on airport connectivity (Smith and Timberlake 2000). *Fig. 1* shows how strongly the global pattern of air travel concentrates on just a few of these cities, highly concentrated in Western Europe, North America and Eastern Asia.

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Table 1

THE CHRISTALLER CENTRAL PLACE SYSTEM (1933)

Type	Market area Radius, km	Population of town	Population of market area
M (Markort)	4.0	1,000	3,500
A (Amtsort)	6.9	2,000	11,000
K (Kreisstadt)	12.0	4,000	35,000
B (Bezirkstadt)	20.7	10,000	100,000
G (Gaustadt)	36.0	30,000	350,000
P (Provinzstadt)	62.1	100,000	1,000,000
L (Landstadt)	108.0	500,000	3,500,000

Source: Christaller (1966), 67; Dickinson (1967), 51.

Table 2

THE LOUGHBOROUGH GROUP "GdWC" INVENTORY OF WORLD CITIES

Cities are ordered in terms of world city-ness values ranging from 1- 12.
European cities are highlighted

A. ALPHA WORLD CITIES

12: London, Paris, New York, Tokyo

10: Chicago, Frankfurt, Hong Kong, Los Angeles, Milan, Singapore

B. BETA WORLD CITIES

9: San Francisco, Sydney, Toronto, Zürich

8: Brussels, Madrid, Mexico City, São Paulo

7: Moscow, Seoul

C. GAMMA WORLD CITIES

6: Amsterdam, Boston, Caracas, Dallas, Düsseldorf, Geneva, Houston, Jakarta, Johannesburg, Melbourne, Osaka, Prague, Santiago, Taipei, Washington

5: Bangkok, Beijing, Rome, Stockholm, Warsaw

4: Atlanta, Barcelona, Berlin, Buenos Aires, Budapest, Copenhagen, Hamburg, Istanbul, Kuala Lumpur, Manila, Miami, Minneapolis, Montreal, München, Shanghai

D. EVIDENCE OF WORLD CITY FORMATION

Di Relatively strong evidence

3: Auckland, Dublin, Helsinki, Luxembourg, Lyon, Mumbai, New Delhi, Philadelphia, Rio de Janeiro, Tel Aviv, Wien

Dii Some evidence

2: Abu Dhabi, Almaty, Athens, Birmingham, Bogota, Bratislava, Brisbane, Bucharest, Cairo, Cleveland, Köln, Detroit, Dubai, Ho Chi Minh City, Kiev, Lima, Lisbon, Manchester, Montevideo, Oslo, Rotterdam, Riyadh, Seattle, Stuttgart, Den Haag, Vancouver

Diii Minimal evidence

, Bangalore, Bologna, Brasilia, Calgary, Cape Town, Colombo, Columbus, Dresden, Edinburgh, Genoa, Glasgow, Göteborg, Guangzhou, Hanoi, Kansas City, Leeds, Lille, Marseille, Richmond, St Petersburg, Tashkent, Tehran, Tijuana, Torino, Utrecht, Wellington

Source: Beaverstock, Taylor and Smith 1999.

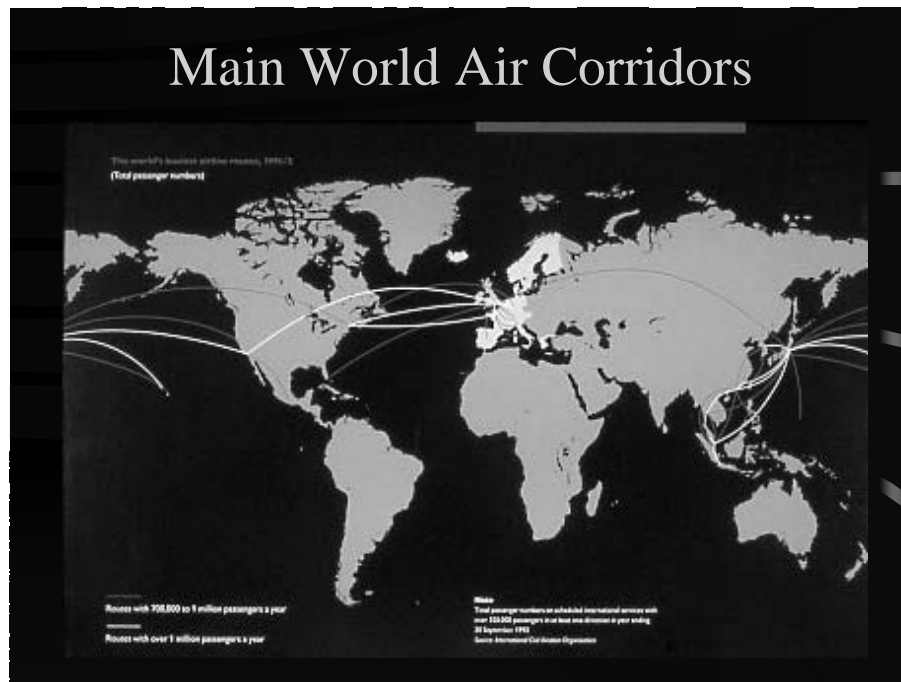


Fig. 1 Major World Air Corridors, mid-1990s
Source: London First Centre

Table 3

WORLD CITY HIERARCHY BASED ON AIR CONNECTIONS, 1997

European cities are highlighted

London
Frankfurt
Paris
New York
Amsterdam
Zürich
Miami
Los Angeles
Hong Kong
Singapore
Tokyo
Seoul
Bangkok
Madrid
Wien
San Francisco
Chicago
Dubai
Osaka
Brussels

Source: Smith and Timberlake 2000.

We can conclude that the Christaller hierarchy now needs to be supplemented by at least two and perhaps three additional levels, producing a hierarchy of perhaps six or seven levels (Fig. 2):

(1) *Global cities* (in the Loughborough terminology, "Alpha" Global Cities) typically with 5 million and more people within their administrative boundaries and up to 20 million within their hinterlands, but effectively serving very large global territories: London, Paris, New York, Tokyo;

Sub-global cities (in the Loughborough terminology, "Beta" or "Gamma" Global Cities), typically with 1-5 million people and up to perhaps 10 million in their hinterlands, performing global service functions for certain specialised services (banking, fashion, culture, media) and an almost complete range of similar functions for more restricted national or regional territories: all European capitals apart from the global cities, together with "commercial capitals" (Milan, Barcelona) and major provincial cities in large nation states (Glasgow, Manchester, Lyon, Marseille, Hamburg, etc.) (Hall, 1995). This last category may overlap with Christaller's L-centres and may possibly be equivalent to it; but a special category must exist for the national capitals, which do not exist in his scheme.

Regional (Christaller's *Landstadt*) (population 250,000-1 million); some of these have characteristics which cause the Loughborough group to describe them as "Showing Evidence of World City Formation".

Provincial (Christaller's *Provinzstadt*) (population 100,000-250,000).

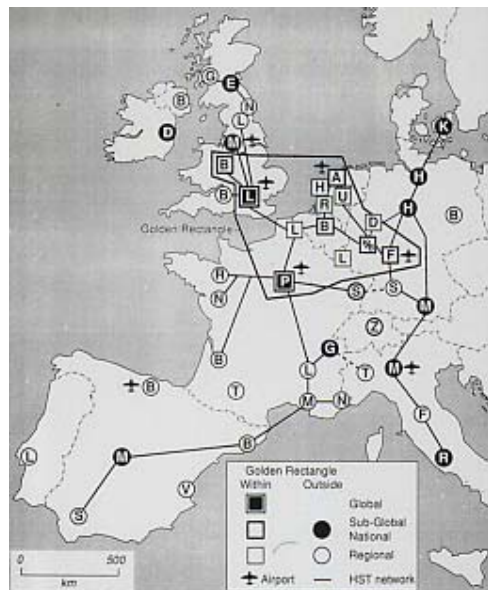


Fig. 2 The European Urban Hierarchy

Below the provincial level, the five levels which Christaller distinguished have not physically disappeared. But the two lowest levels, his *Marktort* and *Amtsort*, have ceased to perform any significant role as central places; they have lost any service functions they may have had, such as a village store or post office, and have become purely residential villages. The next level up, the *Kreisstadt*, may have very limited village-store type services. The lowest significant level in contemporary Europe is probably his fourth level or *Bezirkstadt*, with a population of 10,000 and a service population of 100,000. It is at about this level, for instance, that one typically finds the establishment of a superstore and of a limited range of national chain stores. All this demonstrates the dramatic increase in mobility and thus in what he termed "the range of a good" in the sixty-six years since he wrote, which has effectively replaced the small village store by the superstore as the basic unit of convenience shopping for the average member of the population.

It is however at the next two levels upwards that some of the most significant changes have occurred, since over wide rural areas, depending on population density, one or other of these usually represents the largest available central place. They are the typical county market towns of rural Europe, found across much of southern England, southern

Germany, and most of France. They have grown because they provide the local services for their populations, and sometimes national services (such as universities) also. In the less-developed, depopulating regions of Europe they have acted as magnets, attracting population outflow from the surrounding rural areas; in the more prosperous regions, likewise, they have attracted much of the out-migration of people and the growth of businesses from the major cities at the higher levels of the hierarchy, especially within the transport-rich sectors, as well illustrated by the case of London's western sector. Since 1990 this has been countered by a reurbanisation trend, fuelled in the case of London by migration from abroad and a high rate of natural increase due to a young population. But the net migration trend continues strongly outward.

2. A Geographical-Functional Categorisation: The ESDP

However, the precise form and degree of this development varies significantly from one part of Europe to another. First, it is most marked around the global and sub-global cities, and then predominantly in a few key sectors, representing the most important inter-regional (and sometimes international) transport corridors: around London, for instance, towards the north, west and east.

Secondly, in a few cases this may result in discontinuous corridors or axes of urbanisation, most notably in the so-called "Blue Banana" connecting Birmingham, London, Brussels, Amsterdam, Cologne, Frankfurt, Basel, Zürich and Milan (Brunet 1989).

Third, it is not universal around every major metropolis: Paris, for instance, has disproportionately concentrated its own dispersal into the five giant *cités nouvelles* proposed in the 1965 *Schéma Directeur*, so that – in sharp contrast to London – there has been only minimal dispersal beyond their limits.

Fourth, the precise urban form that results is influenced strongly by the strength of planning powers: there is a sharp contrast between the highly constrained urban growth typical of the United Kingdom and the Netherlands, and the much freer pattern of suburbanisation found in northern Italy. However, in general, because of differential patterns of accessibility set by motorway interchanges and inter-city train stations, market forces by themselves tend to generate a quite discontinuous or punctiform pattern of development around existing central places which remain surrounded by wide green hinterlands. And local resistance, in the form of NIMBY (Not in My Back Yard) movements, tends to limit the growth of many villages and smaller urban places.

Whereas the traditional Christaller central places were linked by radial public transport systems (trains, buses) connecting the towns with lower levels in the system and with villages, the higher levels are directly connected with each other by systems for business travel and information exchange (air corridors, inter-city and high-speed train routes, motorways, telecommunications links for voice and data) and by travel infrastructure in the form of hotels, restaurants and entertainment. This suggests that a new central place system needs to be defined, based on indices of business concentration (international bank transactions, stock exchange transactions, hotels) and flows of people and information. The logic here is that information is exchanged in two ways – by telecommunications and by personal travel – and that the IT revolution almost certainly will *not* mean that the need and desire for face-to-face contact will diminish. On the contrary: the historical record shows very clearly that the growth of telecommunications traffic is paralleled by the growth of personal travel; and this will surely continue to be true in the future. Far from telecommunications reducing the need and desire to travel, it is likely to multiply it: the growth in information exchange will bring with it a necessity for more and more face-to-face. Therefore a key question is where this activity will happen.

All the evidence, even from high priests of cyberspace like Bill Gates or Bill Mitchell of MIT (Gates 1995; Mitchell 1995), suggests that city centres will retain their unique role in providing the most efficient locations for much of this activity, simply because of the accumulated weight of interrelated functions that have historically accrued there, and because radially-oriented transport systems focus on them. Again, the empirical evidence suggests that the hierarchy of cities here in Europe has not changed very much in the last forty years and will not change very much in the future.

The main new influence is likely to be the development of the high-speed train system in Europe, on present plans largely in place shortly before 2010 (Hall 1995a). We know from experience these trains will take about 80-90 per cent of traffic up to about 500 kilometres and about 50 per cent up to about 800 kilometres. This means that by 2010,



Fig. 3 The European High-Speed Train System, ca 2010

when the system will connect all the principal cities of Europe from Bari right up to Glasgow and Umeå, virtually all traffic between key city pairs - Naples and Rome and Milan, Milan and Paris, Munich and Cologne, Cologne and Brussels, Brussels and London, Brussels and Paris, Copenhagen and Stockholm - will go by rail. The longer-distance traffic, even within Europe, will largely remain with air. Within the NVVMA and specifically what used to be called the Central Capitals Region, business traffic will transfer overwhelmingly from air to rail within the next five years, and a critical planning question will be the linkages at the airports between the two systems. We can already see these at Paris-Charles de Gaulle, and soon at Amsterdam and Frankfurt. The likelihood is that these places will become effectively new urban centres, as Dejan Sudjic suggested a few years ago. They will not only attract a vast amount of business in the form of conference centres, exhibition centres and hotels; they are likely to become shopping centres in their own right, as you can see from the plans for Heathrow Terminal Five. So they will compete with traditional downtown areas as business hubs.

There is thus an emerging contrast between the Central Capitals Region, with its dense cluster of cities closely networked through air, high-speed-train and telecommunications links (London, Paris, Frankfurt, Luxembourg, Brussels, Amsterdam), and the "gateway" or "regional capital" cities in the more peripheral European regions, each dominating a large but less-densely-populated territory (Dublin, Edinburgh, Copenhagen, Stockholm, Helsinki, Berlin, Vienna, Rome, Madrid, Lisbon plus the eastern European capitals of Ljubljana, Budapest, Prague, Warsaw and Tallinn). These cities are connected by air into the central region, even though they may be (and increasingly are) the cores of local high-speed-train systems. Here, we find an interesting degree of competition between a higher-order city that appears to control such a wide sector of the European space, and next-order cities controlling parts of that space (as, for instance, Copenhagen versus Stockholm and Helsinki; Berlin versus Vienna; Madrid versus Lisbon). Additionally, in one or two instances, this critical Euro-regional role is divided between a "political" and a "commercial" capital (Rome and Milan; Madrid and Barcelona).

A system, derived in part from the analysis in ESDP but also from work by the present author (Hall 1993), tries to capture these geographical relationships within the European space as well as to hierarchy; it has provisionally been developed as follows:

Central High-Level Service Cities: major cities (national capitals) and major commercial cities in the so-called "Pentagon": London, Paris, Milan, Munich, Frankfurt, Hamburg, Amsterdam, Brussels, Luxembourg. As the ESDP analysis shows, they have the highest multi-modal accessibility within the European Union. They are connected by dense air corridors now being supplemented by (and even partially replaced by) new high-speed train lines.

Gateway Cities (Sub-Continental Capitals): national capitals and major commercial cities outside the "Pentagon", acting as high-level service centres for major parts of the European space: Madrid-Barcelona, Rome, Athens, Vienna, Berlin, Copenhagen (and the Candidate Capitals: Prague, Warsaw, Budapest). They are normally major air hubs for flag carriers and they are increasingly the cores of regional high-speed train systems which are not however not so far connected to the "Pentagon" system, and they may be too distant in some cases for rail to compete effectively. They include some larger commercial cities: Manchester, Lyon, Stuttgart, Leipzig.

Smaller Capitals and Provincial Capitals: these are smaller equivalents of the previous case, commanding less extensive space in terms of population and GDP; in many cases they are at the periphery of the European space: Dublin, Edinburgh, Lisbon, Helsinki, Stockholm (and also smaller, remoter Capitals of the extended EU: Bratislava, Ljubljana, and in the future Sofia). This also includes smaller commercial centres controlling "provincial" territories: Bristol, Bordeaux, Grenoble, Strasbourg, Hannover, Bologna (and, in candidate countries: Poznan, Kraków).

"County towns": this describes the typical rural administrative and service centre for a surrounding area typically 40-60km in radius, of which hundreds exist in the European space. Some, in "accessible rural" areas, are growing very rapidly by dispersal from major cities, thus tending to form highly networked "mega-city regions" as they have come to be known in Eastern Asia (South East England, Delta Metropolis, Lombardy) (Hall 1999). Other, less accessible, examples are experiencing more varied fortunes: some are growing through tourism and migration for retirement, others are stagnant or even (in contracting industrial regions) declining. The last represents a particular

problem highly localised in certain parts of Europe, especially the coalfield belt from northern and midland England through Wallonia, Lorraine, the Ruhrgebiet to Upper Silesia (Cheshire and Hay 1989).

II. Putting the Taxonomies Together: The Recent Record

What happens when we try to put the two different systems of classification together? At the macro-level of analysis, the dominant feature is the contrast between the Central Capital Region, with its dense cluster of high-level cities closely networked through air, high-speed-train and telecommunications links (London, Paris, Frankfurt, Luxembourg, Brussels, Amsterdam), and the "gateway" or "regional capital" cities in the more peripheral European regions, each dominating a large but less-densely-populated territory (Dublin, Edinburgh, Copenhagen, Stockholm, Helsinki, Berlin, Vienna, Rome, Madrid, Lisbon plus the eastern European capitals of Ljubljana, Budapest, Prague, Warsaw and Tallinn). Here, we find an interesting degree of competition between a higher-order city that appears to control such a wide sector of the European space, and next-order cities controlling parts of that space (as, for instance, Copenhagen versus Stockholm and Helsinki; Berlin versus Vienna; Vienna versus Prague and Budapest; Madrid versus Lisbon). Additionally, in one or two instances, this critical Euro-regional role is divided between a "political" and a "commercial" capital (Rome and Milan; Madrid and Barcelona).

These intermediate-size gateway cities have proved relatively dynamic in the 1970s and 1980s. They invariably act as regional airport hubs, with a range of long-distance destinations (Copenhagen, Madrid) and as the hubs of regional high-speed-train systems (Madrid, Rome); they have a wide variety of global service functions, especially where they dominate linguistic regions (as Madrid for Latin America). With expansion of the EU eastwards, the eastern gateway cities (Berlin, Vienna) promise to play new roles in their respective areas, returning to the roles they played before 1914. However, policy does not appear to have played much of a direct role in this development; it is a function of European geography and its relation to the wider global economy. And it must not be forgotten that the political geography is quite different: the old German and Austro-Hungarian empires have been dismembered, and the 1919 Versailles settlement remains, fortified by linguistic and cultural differentiation.

Smaller cities seem to have experienced some advantages when they are clustered so as to constitute a wider economic area sharing labour markets and specialised services. The outstanding examples are the Greater South East region outside London and the fringes of Randstad Holland. But many other parts of Europe have developed corridors of intense urbanisation along major transport spines, as in the Rhine Valley above Frankfurt, the Rhone Valley below Lyon, or the Emilia-Romagna region of Italy. In a few cases (as in South East England) planning policy has played a conscious role in this; elsewhere, again, it seems to have been a spontaneous evolution. But there is now a general agreement that such a form, which can combine small mixed-use urban developments clustered along strong public transport spines, represents perhaps the most sustainable form of urban development; and some national planning strategies are beginning to adopt it, for instance in the UK. In the future they will be joined by similar cities in central Europe, such as Wrocław, Poznań, Plzeň and Szeged.

Many more isolated medium-sized towns, outside these major trans-European corridors but located on national movement corridors connecting larger cities, have shown remarkable dynamism. Examples include Nottingham and Bristol, Hannover and Munich, Grenoble and Toulouse, Naples and Ravenna, Zaragoza and Valencia. The key seems to be first that they are in "Sunbelt" rural regions that are themselves prosperous, either through efficient agricultural production, or (more commonly) because these cities themselves have become the main centres for advanced service employment. Public sector spending policies have played a role here, by concentrating such functions as higher education and hospitals in these places. But the sources of growth are more subtle than this, and such places show remarkable variations in fortune, depending on local socio-cultural factors that may go back for centuries - as, for instance, between northern and southern Italy.

How does one try to summarise this mass of partial and sometimes contradictory data? Some kinds of urban area, it seems, are unambiguously growing through in-migration:

First, the hinterlands of the major cities, mainly in Northern and Central Europe, that are benefiting from the exodus from these cities into wider "mega-city regions" - as around London, Copenhagen and Randstad Holland; possibly this trend has weakened since 1980 with the trend to reurbanisation, though rapid growth has continued in the fringe areas.

Second, medium-sized and smaller metropolitan areas in less-urbanised "sunbelt" zones with medium-sized and smaller cities, particularly in the southern UK, southern France, Portugal and central and northern Italy.

Third, a few selected larger urban centres and their immediate hinterlands in the less-developed, less-densely-populated regions of rural out-migration, particularly Scandinavia, Mediterranean Europe, Ireland and some eastern European countries. This tends to reflect the magnetism of such cities at the stage of development these regions have reached, and also government policies in eastern Europe. It also reflects that there are relatively few such large city regions in these parts of Europe which can act as foci for in-migration.

These trends reflect underlying economic realities. Globalisation and the shift to the informational economy give special value to large cities as centres for efficient face-to-face information exchange. They are the locations of the major hub airports and the high-speed train stations; they also are hubs for commuter traffic. But they also experience some economic disadvantages: high rents, congestion, pollution, the costs of attracting middle- and junior-level staff. So certain activities ("back offices", R & D) tend to migrate outwards: to corridors leading to the airports, to suburban train stations, to country towns in the surrounding ring. Meanwhile, medium-sized cities ("provincial capitals") in "sunbelt" rural regions (Bristol, Hannover, Bordeaux, Oporto, Seville, Bologna) are growing through strong concentrations of public services (higher education, health services), retailing and tourism. Some of these also act as centres of high-technology manufacturing, and/or have attracted longer-distance office decentralisation. Some similar-level cities in older industrial regions (Dortmund, Leeds) have seen a similar growth, though others have been less successful, especially if they are peripheral either nationally or in a European sense. Finally, there are many cases of growth at the next level of the hierarchy: the "county town", or medium-sized administrative-service centre of a rural region, of which hundreds of European examples exist. These centres have grown as local service centres; they often offer a high level of environment (and some, like Freiburg, are outstanding examples); they are attractive both to migration and inward investment.

Thus, the overall picture is not easy to summarise. On the one hand, significant concentrations of activity are occurring in the cores of the very largest cities; they generate wealth and, through multiplier effects, jobs, even though some of the process may be "exported" to commuter towns in the surrounding ring. However, such growth does not generate sufficient employment to compensate for the loss of traditional manufacturing and goods-handling activities. The result is a paradox: high levels of income generation are accompanied by localised long-term structural unemployment. In terms of employment and population growth, medium-sized and smaller towns are showing more rapid growth than larger ones; and some are benefiting from spillover effects from larger cities into their commuter rings. However, their performance varies significantly from region to region: it is strongest in the zones of deconcentration around the largest metropolitan areas of the Central Capitals region, strong also in "Sunbelt" regions, variable in the peripheral regions of out-migration where the main beneficiaries are at the next level up the hierarchy. In Eastern Europe, cities at this level of the hierarchy tend to be weakly represented.

Another way of looking at the evidence, therefore, is to return to the macro-level of geographical analysis. The Eurocore or Central Capitals region continues to exhibit strong growth, with a reversal of the counter-urbanisation tendencies of the 1970s in at least some of the cities, but with continuing local out-migration which effectively extends the metropolitan area into a huge and complex polycentric structure. The more peripheral political and commercial capitals also exhibit growth, sometimes accompanied by local decentralisation to smaller cities, but sometimes not; here, the pressures for deconcentration, in the form of congestion and other negative externalities, are fewer. The Euro-periphery exhibits general continued out-migration, but accompanied by local migration patterns which benefit a relatively few local service centres.

III. Towards a Spatially Integrated Approach: The ESDP

This is why the European Spatial Development Perspective is highly relevant. It adopts a central principle of polycentricity, allied to decentralised concentration: a principle long ago adopted in Dutch spatial planning, which aims to disperse economic development from congested urban regions, but to reconcentrate it in urban centres in the less developed regions, thus benefiting both kinds of region.

However, it does so at the largest possible geographical scale. The aim is not so much to redistribute some fixed amount of activity in a kind of zero-sum-game; it is to encourage a significantly higher level of growth in less-developed regions and cities, some of which will be older industrial cities in need of restructuring, but a much larger number of which will be cities in the less densely-populated, less-developed fringe regions of western, southern, northern and eastern Europe.

Here, it is necessary to realise that the central word, *polycentric*, needs to be carefully defined: it has a different significance at different spatial scales and in different geographical contexts. At the global level, *polycentric* refers to the development of alternative global centres of power. Presently, there are a very few cities worldwide that are universally regarded as global control-and-command centres, located in the most advanced economies: London appears in all lists, Paris appears on some. Importantly, however, Europe has a number of "sub-global" cities, performing some global functions in specialised fields: Rome (culture), Milan (fashion), Frankfurt and Zürich (banking), Brussels, Luxembourg, Paris, Rome and Geneva (supernational government agencies) (Hall 1993, Hall 1995b, 1995c, Hall 1996).

Within a specifically European context, therefore, one meaning of a *polycentric* policy is to divert some activities away from "global" cities like London (and perhaps Paris) to "sub-global" centres like Brussels, Frankfurt or Milan. But there is also a very important spatial dimension: while some of these cities are found in the Central Capitals region (Brussels, Amsterdam, Frankfurt, Luxembourg), a much larger number are "gateway" national political or commercial capitals outside the Centre Capitals region: they include Helsinki, Stockholm, Copenhagen, Berlin, Vienna, Rome/Milan, Madrid/Barcelona, Lisbon and Dublin. They serve broad but sometimes thinly-populated territories such as the Iberian peninsula, Scandinavia and east central Europe. Because they are national capitals serving distinct linguistic groups, they invariably have a level of service functions larger than would be expected on grounds of size alone; they tend to be national airport and rail hubs, and the main centres for national cultural institutions and national media.

A major issue here is whether it will be either necessary or desirable to concentrate decentralised activity into a limited number of "regional capitals", each commanding a significant sector of the European territory - Copenhagen, Berlin, Rome, Madrid - or whether it would be preferable to diffuse down to the level of the national capital cities, including the smaller national capitals. Essentially, how far should Madrid be regarded as the dominant gateway for south west Europe, or should it share this role with Lisbon, Bilbao, Barcelona and Seville? And likewise with Copenhagen vis-à-vis Stockholm, Oslo and Helsinki. This could be particularly important in eastern Europe, where Berlin and Vienna may develop important roles for their hinterlands reflecting past geographies, but where also there is a real need to reassert the service roles of the different national capitals and selected provincial capitals (Gdansk, Kraków, Plzeň, Szeged).

At a finer geographical scale, however, polycentricity can refer to the outward diffusion from either of these levels of city to smaller cities within their urban fields or spheres of influence. We have already noticed that such a process has occurred on a wide scale around London, which is now the centre of a system of some 30-40 centres within a 150-km. radius, while (for different historical reasons) Paris and Berlin in contrast have much more weakly-developed urban systems. At the next level, cities like Stockholm, Copenhagen and Milan also show widespread outward diffusion while other cities do not. East European cities, in particular, have had relatively little impact through decentralisation on their surrounding regions, though this may change in the future.

In general, at this scale a policy of "deconcentrated concentration" would suggest adopting the principle fairly widely, but adapting it to the specific development stages and problems of each city and region. Specifically, the general principle should be to guide decentralised

growth, wherever possible, on to a few selected development corridors along strong public transport links, including high-speed "regional metros" such as those under construction around Stockholm and Copenhagen, and planned for London, or even along true high-speed lines such as London-Ashford, Amsterdam-Antwerp or Berlin-Magdeburg. These would not of course be corridors of continuous urbanisation, but rather clusters of urban developments, at intervals, around train stations and key motorway interchanges that offer exceptionally good accessibility. Some of these sites could be at considerable distances, up to 150 kilometres, from the central metropolitan city.

In the more remote rural regions, far from the global and sub-global centres, the pursuit of polycentricity must have yet another dimension: to build up the potential of both "regional capitals" in the 200,000-500,000 population range (Bristol, Bordeaux, Hannover, Ravenna, Zaragoza, Gdańsk, Lublin, Brno), including some smaller national capitals (Vilnius, Ljubljana) and smaller "county towns" in the 50,000-200,000 range. The main agents will be enhanced accessibility both by road and (most importantly) high-speed train, coupled with investment in key higher-level service infrastructure (health, education); the systematic enhancement of environmental quality, to make as many as possible of these cities "model sustainable cities"; and finally the competitive marketing of such cities as places for inward investment and relocation. Again, but on a smaller scale, the growth of such centres could be accompanied by a limited degree of deconcentration to even smaller rural towns within easy reach.

So we begin to see a potential contradiction in meeting ESDP objectives: dispersal from large cities into "mega-city-regions", which may be occurring around several different kinds of city – Central Cities (London-South East England, Amsterdam-Delta Metropolis, Rhine-Ruhr, Rhine-Main), Gateway Cities (Copenhagen-Ørestad, Barcelona-Catalonia) and Provincial Capitals (Stockholm-Mälardalen, Seville-Andalucia) may produce a more polycentric system at the local level but a less polycentric system at a higher, European level.

This impinges particularly on the countries that will enter the EU in May 2004, and on their urban systems. Most are small, some very small, and are very strongly monocentric in their urban structures: their capital cities dominate them both demographically and economically. Enlargement is if anything likely to accentuate and exaggerate this quality, as leading economic sectors grow in the "gateway" capital cities and as long-delayed economic adjustments take place, leading to rural-urban migration on the pattern characteristic of western European countries in the years immediately after the Treaty of Rome. Only perhaps in Poland, by far the largest of the accession countries, is this likely to be balanced by growth of larger regional cities such as Gdańsk and Kraków. But in none of these countries, as yet, does there appear to be a phenomenon of local polycentricity (the formation of "mega city regions") which is characteristic of the most densely populated North West European heartland. The nearest candidates for the future may be Central Bohemia, the Katowice-Kraków corridor and the international Vienna-Bratislava-Győr region.

These tendencies are so far latent and incipient. But, given the emerging importance of the mega-city-region in terms of economic clustering and its potential competitive advantage, it will be vitally important throughout Europe that we are able to measure polycentricity, and its accompanying transport systems, at more than one spatial scale. It is a complex strategy, and its further elaboration will be an important central part of the new programme for the European Spatial Programme Observatories Network in which we are now so actively involved, as well as the related Interreg IIIB and IIIC programmes which will play a vital complementary role in analysing the phenomenon in the key regions of the Union. I'm delighted to announce here that last week my Institute in London received conditional approval for a €2.2 million grant to analyse the mega-city-region phenomenon in North West Europe. Hopefully, with your aid, we can begin to extend that study over the coming years to other parts of the Union – including, most importantly, studies of incipient mega-city formation here in East Central Europe. As Vice-Chair of the Prague Centre, I very much hope that from May next year you will be able to play a key role in such studies.

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