9. Strategic Planning for London: Integrating City Design and Urban Transportation

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9.1 Introduction

Over the last decade, London has reformed strategic planning more than any other mature western city of similar size. In 2000, the U.K. government created the Greater London Authority (GLA), including a directly elected mayor, ending a 15-year period without any citywide government. As a consequence, urban planning and transport have been upgraded by a strategic citywide plan, the London Plan, and a multi-modal transport agency, Transport for London. Both offer an interesting example of how a city that had abandoned citywide planning is rediscovering strategic planning as an important tool for sustainable urban development. The city's congestion charge is as much part of this strategy as are more progressive approaches to implement higher residential density levels. This essay examines London's current urban development strategies, which aim to achieve greater integration of urban planning, design, and transportation and offers reflections on the successes and problems that have emerged since implementing this important reform.

The quest for greater integration is neither new nor particularly groundbreaking and tends to be an updated version of the well-established agenda of coordinating policymaking and synchronizing public administration (Pollitt 2003). More recently, however, the rhetoric of "holistic," "joined-up," or "integrated" policymaking has not only increasingly dominated political debates, but has left recognizable marks within government structures, decision-making, and planning processes. And indeed, the global environmental challenge, coupled with increasing difficulties for governments at all levels to respond to new sets of interdependencies, has elevated the universal need for simple coordination to a far more ambitious strategy for integrated governance (Brundtland 1987; UN 1992; Lafferty and Hovden 2003).

A. Sorensen and J. Okata (eds.), *Megacities: Urban Form, Governance, and Sustainability*,

These new forms of interconnected governance are of particular relevance to megacities with their rapidly increasing complexities and entwined dependencies. Aggravated by the negative social consequences of modernist city visions and the dramatic anti-urban results of decisions taken in sectoral silos, many cities had already adopted integrated approaches prior to the introduction of the sustainability agenda (Gehl 1987; Kelbaugh 1989). Early on, increasing urban sprawl, fragmentation, and social exclusion demanded a more balanced cross-sectoral recognition of the environmental, social, and economic components of growth. In fact, urban development is often featured as the ultimate testing ground for greater policy integration and has already produced many of the most innovative practices. In recent years, well-documented integrated policy has emerged from cities as diverse such as Barcelona, Johannesburg, Bogotá, Kolkata (Calcutta), London, and Berlin. Furthermore, it is the exceptional interdependence of spatial development and transport that for long has pushed the pair to the forefront of an agenda for greater integration (Jenks et al. 1996; DETR 1999; Rogers and Power 2000; Burdett et al. 2005; Busquets 2004). Again, it is in cities that this relationship is most pronounced and in dire need of consistent policy integration.

Despite these pressures, decision makers and practitioners still find it difficult to give the agreed-upon goal of greater integration more meaning by finding robust strategies that allow for the desired level of policy integration (Cowell and Martin 2003; Meijers and Stead 2004). In particular, as pointed out by Cowell and Martin, there is a sustained naivety about the "tough political decisions about control, resources, organizational design, and (potentially conflicting) policy objectives" that result from shifting towards more joined-up practice. Looking at spatial development, Kidd comes to similar conclusions: "While there is general recognition that integration is an essential feature of spatial planning, understanding of its complexity in terms of spatial planning theory and practice is still emerging" (Kidd 2007).

Clearly, London's latest governance reform and planning policy innovation offer valuable insights to this discourse.

9.2 Greater London

Greater London covers approximately 1,600 km^2 at a gross residential density of about 4,800 people per km^2. However, almost half of this surface consists of open and recreational space. In recent times London, a service-led urban economy with a global orientation, has experienced significant economic

growth. Currently its Gross City Product is estimated at US$49,000 per capita, accounting for almost 20% of the UK's national economy with just 12% of the population. The city's booming urban economy has reinforced its status amongst the top three global cities as a financial powerhouse as well as a creative hub. Yet a core of poverty prevails in inner London, particularly in its eastern and southern areas.

Following a long period of population decline between 1940 and 1980, Greater London's population has been growing by an average of 45,000 persons per year over the past two decades and reached about 7.5 million in 2007 (Fig. 9-1). The population increase has accelerated in recent years and in 2005 reached almost 90,000 persons per year (GLA 2006). Projections indicate that the total will reach eight million within the next 10–15 years, and that over the period between 2003 and 2026, an additional 800,000 households will be added to the city (DCLG 2007). London plays a particular role within its national context and is characterized for example by a significantly higher GDP per capita, as well as lower home and car ownership levels.

Amongst cities of similar size and status, London is built at relatively low density levels. More than 50% of its dwelling units are terraced, semi-detached, or detached houses. Typical density levels within residential neighborhoods vary between 40 persons per hectare in Outer London and up to 150 persons per hectare in Inner London. London features one of the

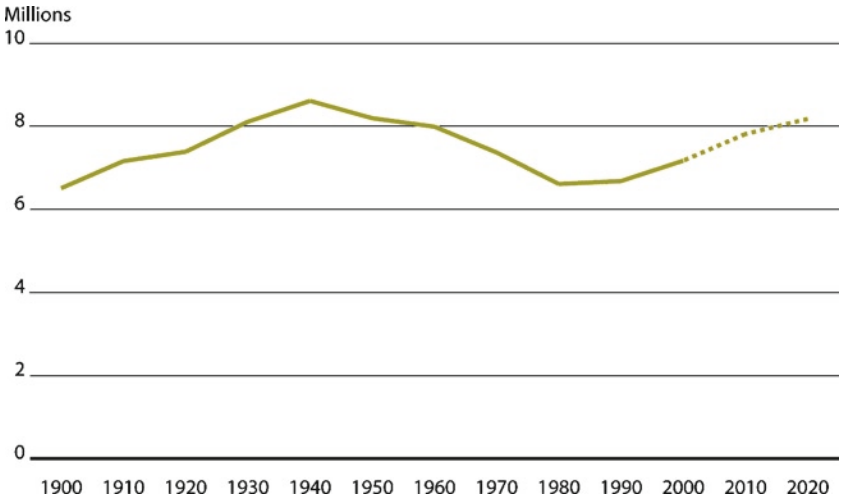

Fig. 9-1. Population growth London (administrative city). Source: Urban Age Programme, based on UN 2005, Greater London Authority (2006)

world's most extensive rail systems. Its Underground lines total 408 km and regional rail within the larger metro region (70 by 70 km) extends a further 1,400 km (Fig. 9-2). Travel patterns are a direct consequence of the city's form and transport system. While relatively high levels of public transport use are guaranteed by the extensive system, low density levels make car use the most dominant means of travel and offer little incentive for walking and cycling (Fig. 9-3).

Fig. 9-2. Rail infrastructure in London. Source: Urban Age Programme, based on UK Census 2001; Transport for London (2004)

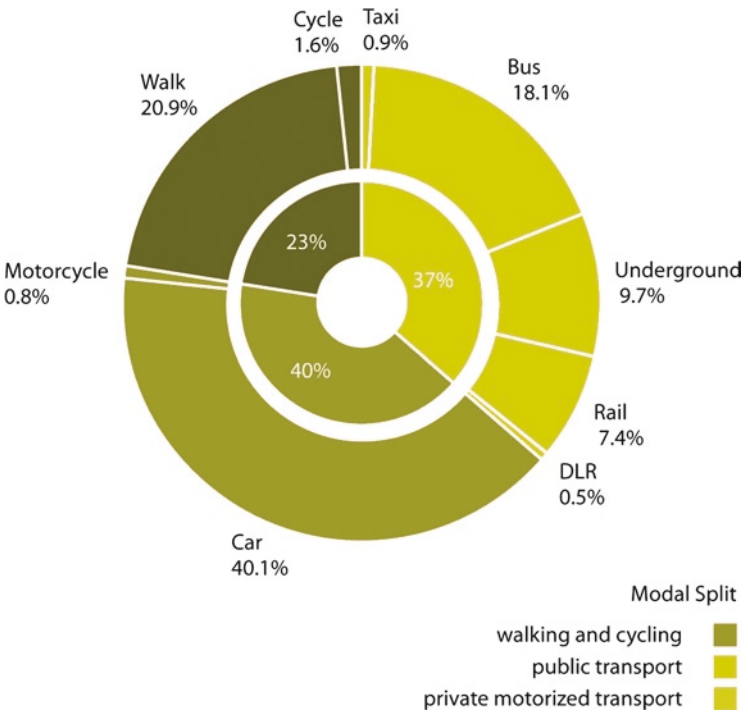

Fig. 9-3. Modal split London. Source: Urban Age Programme, based on Transport for London (2006)

Partly as a result of its success and partly because of structural deficiencies, London continues to suffer from problems. A high cost of living, traffic congestion, a shortage of affordable housing, crime, and problems with transportation are typically referred to most frequently and were confirmed by the public response to the latest London survey (Ipsos MORI 2007). At least three of the five top challenges are directly related to spatial development patterns of the city and highlight the important interface of transportation and city design. So far, policy makers have had little success in tackling the housing crisis. The overall shortage and high cost for housing has not eased and strategies for affordable housing have had only limited success.[1] Experts in London confirm in particular the potential risk of imbalances within the housing market and its regional consequences.[2]

[1]Stakeholder Interview, Senior Officer, London First, 2007.
[2]Expert Interview, Urban Planner, Bartlett School, London, 2007.

Developments in the transportation sector are more positive. Since the Greater London Authority and the Mayor of London were inaugurated in 2000, transportation has emerged as one of the most innovative policy fields through which London has received significant international attention. It could easily be argued that the recognition of urban transportation as one of the most pressing challenges paved the way for progressive demand management strategies such as London's Congestion Charge or new forms of multimodal transport planning facilitated by Transport for London. More specifically, the problems that have led to these responses include the lack of maintenance of large parts of transportation infrastructure,[3] congestion, and severe overcrowding on trains, underground lines, and buses, coupled with poor service quality. The overall transportation system further struggles to cope with a growing metropolitan region[4]; a problem exacerbated by a failure to integrate urban activity patterns and land use.

9.3 Governing Greater London

In 2000, urban governance in London was significantly altered with the introduction of the Greater London Authority (GLA), including a directly elected mayor. Greater London includes all 33 London boroughs and is one of three regions covering 13 counties that form the London metropolitan region, with about 19 million people. Still, the new London government operates within a relatively centralized country. With a contribution of almost a fifth to the UK's GDP, London's economy is essential to the entire country and central government is carefully devolving further power to the city level (Fig. 9-4).

A number of central government departments have responsibilities within Greater London, including the provision of health services, the oversight of commuter railways, and a decisive voice in major planning decisions. Central government also has a degree of control over the GLA and the city's boroughs through regulatory powers.

The creation of the Greater London Authority (GLA) brought with it the integration of formerly fragmented agencies responsible for urban development and transport to a significant degree (Fig. 9-5). The Mayor of London is the elected executive for many citywide services, notably public transport

[3]Stakeholder Interview, Senior Officer, City of London, 2007.
[4]Stakeholder Interview, Senior Officer, Design for London, 2007.

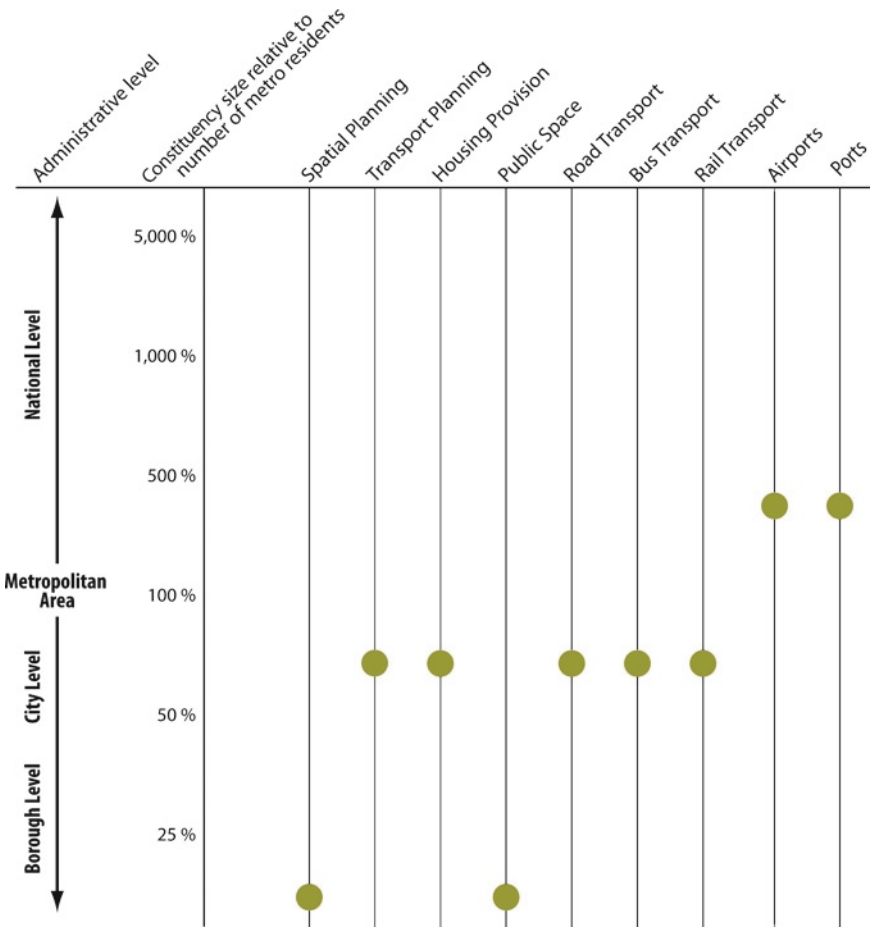

Fig. 9-4. Governance hierarchy: where are the key decisions taken? Source: Urban Age Programme

and spatial planning − the two most important agencies being the London Development Agency (LDA) and Transport for London (TfL). Two other important agencies are the Spatial Planning Group, which is directly associated with the Mayor's office, and Design for London (DfL), a newly created body focusing on design quality.

The executive power of the Mayor of London, who has direct oversight of all four, allows for coordination and synchronization. However, the fact that these bodies have been set up as relatively independent agencies still tends to compromise integration, particularly between transportation and spatial planning. Still, Burnham notes that although the GLA's policy-making was not as integrated as intended by the legislation that had led

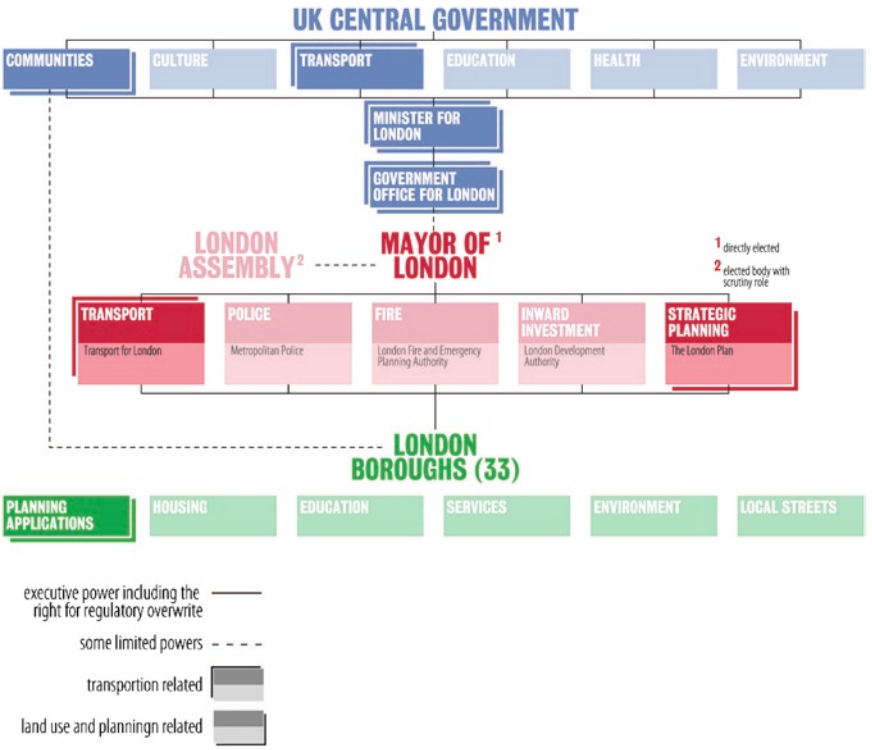

Fig. 9-5. Governance structure. Source: Urban Age Programme

to its creation, "its approach to transport was more integrated than under previous organizational arrangements" (Burnham 2006). In particular, organizational integration in London has been pushed to maximum levels within the area of transport planning and operations through the creation of Transport for London (TfL).

TfL is directed by a management board the members of which are appointed by the Mayor of London, who further acts as the chair of the board. As a unique example of a multimodal transport agency, TfL brings together strategic citywide transportation planning, public transportation operations including rail, bus, and taxi service, traffic management, road maintenance, and efforts to facilitate walking and cycling. As such, TfL combines responsibilities that in most cities are typically dealt with separately by a department of transportation, a department of public works, one or more public transportation agencies, a road traffic management body, and local-level agencies responsible for public space, walking, and cycling. A senior officer of TfL points out that the overriding strength of

this organizational structure is its ability to produce truly comprehensive transportation plans that deal with more than just public transportation and are therefore far better suited for strategic planning in cities and have an influence on urban planning.[5]

TfL's success further relies on its regulatory and budgetary powers. With an annual budget of about £6 billion – by far the largest of any GLA agency – it has sufficient regulatory control not only to determine the nature and volume of public transport services, but also to manage travel demand and mobility patterns (GLA 2006). As a senior officer of TfL points out, this combination of powers allowed the successful implementation of London's most innovative transport policy, the congestion charge scheme. "Commercial operators would never produce sufficient public transport as a part of a large scheme to prevent people from car ownership. We could not have done congestion charging without a control over the bus service, which said that we want more buses to operate."[6] TfL's holistic transport agenda also facilitates a clear commitment to reducing overall travel demand. In other cities with less comprehensive organizational designs for transportation planning, this strategic goal is often neglected − if not contradicted by the interests of individual transportation providers.[7]

Improvements in overall transportation efficiency are further seen as a consequence of the strong political leadership of the Mayor of London (Burnham 2006). Combined with the effectiveness of TfL's role in proactive planning for urban transport in London,[8] this leadership has allowed the city to commit to ambitious targets for tackling climate change. By 2025, the 40% reduction in London's CO_2 emissions will include a significant reduction in the ground-based transportation sector of 4.3 million tonnes, or 22% of all reductions. These reductions will be generated by a combined strategy, including further modal shifts, more efficient operations, and infrastructure improvements that all rely heavily on coordinated strategies across transport modes (GLA 2007).

TfL's achievements have been confirmed by independent reviews. In 2004, the Audit Commission rated the agency's performance as "excellent" (Audit Commission 2004). Burnham emphasizes that in part, TfL's success has also relied on the efficiency of its various organizational bodies prior to being combined: "Good outcomes have been delivered because well-managed

[5]Stakeholder Interview, Senior Officer, Transport for London, 2007.
[6]Stakeholder Interview, Senior Officer, Transport for London, 2007.
[7]Stakeholder Interview, Senior Officer, Transport for London, 2007.
[8]Expert Interview, Urban Planner, Bartlett School, London, 2007.

transport organizations were already in place, and have been led since 2000 by transport professionals who were given the political and financial support they needed" (Burnham 2006).

Despite its success, until recently TfL struggled with two particular issues. The first was the public–private partnership scheme for maintaining and upgrading the London Underground network, a scheme pushed through by central government against the mayor's will, which ultimately led to the bankruptcy of the operating company Metronet in 2007.[9] The second is the oversight of national rail operators, which are hugely important for commuting within the metropolitan region and were not initially within the remit of TfL.[10] Both issues are closely tied with the overarching transportation challenge of reducing overcrowding and improving the service quality of public transport. The influence of the central government beyond TfL's control is also built into Crossrail, the £17-billion rail mega-project offering fast east–west service underneath the city.[11]

At a far lower funding level, another agency of the GLA group facilitates integrated urban development for Greater London. Design for London (DfL) operates as a city design agency with the core mission "to support the delivery of well-designed projects across London, and to make sure that the Mayor's commitment to design excellence is reflected within all projects that the mayoral agencies commission or fund" (DfL 2008). A senior officer of Design for London emphasizes that fulfilling this role requires close coordination with agencies across sectors and disciplines. "We are the only organization that bridges across Transport for London, the London Development Agency, and the Greater London Authority… Everything that involves physical development, we see, we comment on, we agree, and sign off their design. For the first time, we are able to see way deep inside the three big agencies in London government in a way that hasn't otherwise happened."[12]

In this way, DfL – set up in early 2007 – promises to operate as catalyst for the greater integration of physical planning and development strategies. Rather than relying, as was previously the case, on ad hoc steering groups and liaison meetings at various levels, DfL attaches itself to various activities throughout the London government. As part of its work, the agency has developed strategic documents such as design guidelines for developing high-density

[9]Metronet – Lessons from a wreckage. The Guardian: Leader. February 9, 2008. http://www.guardian.co.uk/commentisfree/2008/feb/09/leadersandreply.mainsection.
[10]Expert Interview, Urban Planner, Bartlett School, London, 2007.
[11]Expert Interview, Urban Planner, Bartlett School, London, 2007.
[12]Stakeholder Interview, Senior Officer, Design for London, 2007.

housing; policies and best practices for designing green roofs; and the Green Grid, an effort to "create a network of interlinked, multi-functional and high quality open spaces" that will connect with town centers, employment and residential areas, and public transportation nodes (DfL 2008).

Although the Greater London Authority has been successful in advancing more coordinated urban development, the full integration of its various agencies is not yet concluded and requires further adjustments. However, prevailing organizational fragmentation is primarily seen as a result of the particular circumstances under which the London government was implemented in 2000, after decades of neglecting strategic citywide governance.[13]

9.4 Strategic Planning

While London's new governance structure is an essential prerequisite for more integrated urban development, it requires a consistent system of plan making and implementation that together define more positive outcomes on the ground. What follows is an overview and evaluation of two key regulations that together form the basis of London's strategic planning effort. The first is the national green belt policy, which since its introduction in 1955 has become a defining regulation for urban development in the London metropolitan region. The second is the London Plan, the mayor's spatial planning strategy, which came into force in 2004.

9.5 The Green Belt

The London Green Belt – often referred to as the Metropolitan Green Belt – is one of 14 such areas in Britain surrounding the country's mayor metropolitan centers. Within these areas, land use regulation protects open land from being developed and limits each city's expansion into its rural hinterland. London's green belt covers about 4,860 km^2, making it about three times the size of Greater London (Fig. 9-6).

Green belts belong to the category of urban growth boundaries (UGBs), a principal tool for spatial planning in metropolitan regions. In evaluating their applicability, it is important to differentiate a city's expansion on the

[13]Stakeholder Interview, Senior Officer, Design for London, 2007.

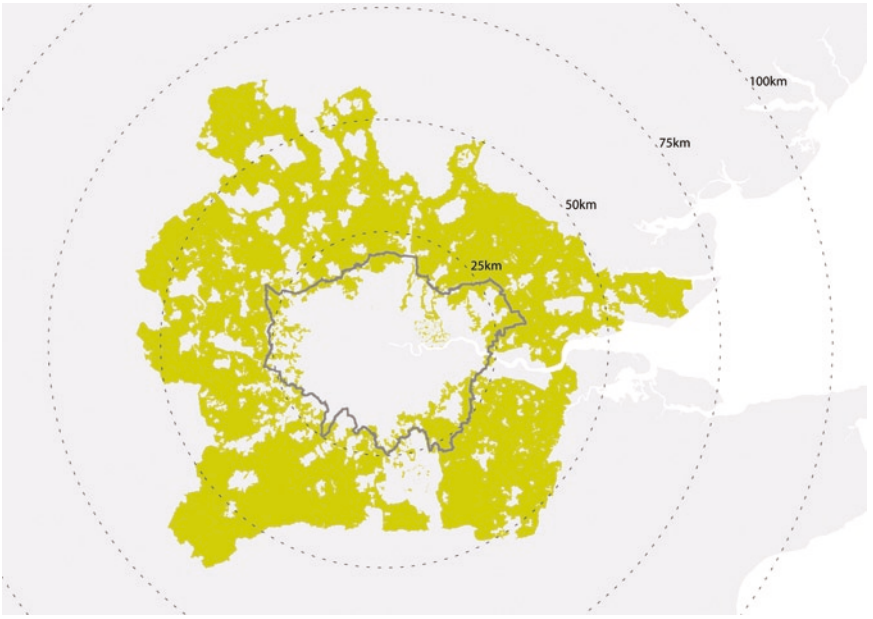

Fig. 9-6. London's green belt. Source: Urban Age Programme, based on Ordnance Survey OS Master Map, Magic

grounds of efficiency gains on the one hand and excessive urban sprawl resulting from market failures on the other (Brueckner 2000, 2001). In the latter case, UGBs are considered a response to negative externalities related to increased travel and commuting times, pollution, congestion, loss of public amenities, and the loss of open space (Cheshire and Sheppard 2002), as well as the opportunity costs of reduced agglomeration effects and urbanity as a consequence of lower densities, the segregation of land uses, and the lost value of public space. In these cases, the benefits of UGBs compared to laissez-faire scenarios of urban growth have been well documented and are widely accepted (Kanemoto 1977; Arnott 1979; Pines and Sadka 1985).

As national policy in the U.K., green belts were first introduced in 1955 following a 20-year-long process of refining the details of London's green belt. The first official proposal referring to a green belt was put forward by the Greater London Regional Planning Committee in 1935 (ODPM 2001). Its proposal to reserve public open space and recreational areas was closely tied to the Garden City Movement, led by Ebenezer Howard. In 1944 the idea first appeared in an advisory Greater London Plan prepared by Patrick Abercrombie, and in the 1947 *Town and Country Planning Act*, the green belt finally gained legal status for London. With minor updates, the overall principle of the green belt policy has been maintained until today.

Its details are regulated by Public Policy Guidance 2 (PPG2) – Green Belts. The guidance states the following core purposes, reflecting the success and overall acceptance of the green belt:

1. To check the unrestricted sprawl of large built-up areas
2. To prevent neighboring towns from merging into one another
3. To assist in safeguarding the countryside from encroachment
4. To preserve the setting and special character of historic towns
5. To assist in urban regeneration, by encouraging the recycling of derelict and other urban land (ODPM 2001)

The primary functions foreseen for green belt land includes, above all, recreational uses for urban dwellers, agricultural and forestry uses, and conservation.

As a national policy, PPG2 is binding on all regional and local planning authorities responsible for making provisions for green belts. Accordingly, land use regulation is established at the local level by development plans following the strategic targets established by structure plans at the regional level, which themselves are scrutinized by the central government. Regulatory details for green belt areas are also dealt with by national policy, which defines new buildings within the green belt boundary as inappropriate unless they are agricultural, forestry or recreational facilities or they represent alterations or replacements of existing dwellings. Further infilling within existing villages and affordable housing projects for existing communities are also acceptable (ODPM 2001). However, exceptions exist and over the last 20 years, some local and regional plans have adjusted green belt boundaries to accommodate universities, business parks, and housing estates (Nathan 2007).

9.5.1 Positive Effects

The U.K.'s green belt policy is widely celebrated as one of the great success stories of strategic spatial planning in the country. Cities with green belts have been able to maintain a degree of compactness and city center activity while containing urban sprawl. Their developments differ greatly from many North American cities, where uncontrolled growth has led to disastrous anti-urban effects such as the creation of "exurbs." In fact, the more recent adoption of green belt policies in the United States appears as a direct consequence of the latter phenomenon (Nathan 2007). In London, the city's green belt was crucial in maintaining a degree of density that proved essential for its global city status and for countering fierce competition from New York and Paris – both cities that have maintained their urban concentration due to physical factors: Manhattan's particular geography as an island and Paris's concentration inside the Périphérique ring road.

Even today, planning experts in London clearly confirm the value of the city's green belt, not only in the way it gives shape to the metropolitan region and contains sprawl, but more importantly in its contribution to the regeneration of more central areas and to strengthening the urban character of the city.[14] Urban growth boundaries were also endorsed by the Urban Task Force Report in 1999 – a central policy paper that gave direction to the U.K.'s urban agenda (DETR 1999). Finally, green belt policies enjoy unusually high popular support and are probably the best-known planning tools in the country (Nathan 2007). Although they limit the individual freedom to develop privately owned land, they have been welcomed partly as a result of the British public's appreciation for nature, coupled with conservationism.

9.5.2 Negative Effects

Despite the success of the green belt, the last few years have seen an emerging debate about the wisdom of the green belt policy in its current form. Policy makers and planners are locked into discussions created by competing agendas and find it increasingly difficult to maintain full support for the current approach. While the broad political consensus of strengthening city and town centers and promoting brownfield development and urban regeneration continues to generate valuable arguments in favor of the current green belt policy, others argue that sharp increases in population and the U.K.'s housing crisis make the need for amendments urgent. More specifically, the following three arguments for adjustment were recently put forward by the Barker Review on Planning (Barker 2006).

First is the general need to release greenfield land. The housing shortage caused by increases in population and the number of households (TCPA 2002) is said to be unsolvable by brownfield development only. In the South East, nearly 1.5 million people are on waiting lists for housing, and in addition to the government's growth area program, the center-left Institute for Public Policy Research suggests that a further 200,000 homes will be needed by 2016 (Nathan 2007). Surveys also frequently point out that only about 2% of the population has a preference for living in flats, the housing form usually associated with inner-city brownfield development (CABE 2004).[15]

Second is the need to review the location of protected land. Evidence suggests that green belts have led to leap-frogging (Fig. 9-7), whereby new

[14]Stakeholder Interviews, London, 2007.

[15]CABE (November 2004) Public Attitudes to Architecture and Public Space: Transforming Neighbourhoods: Final Report. Research Study Conducted for the Commission for Architecture and the Built Environment, 30.

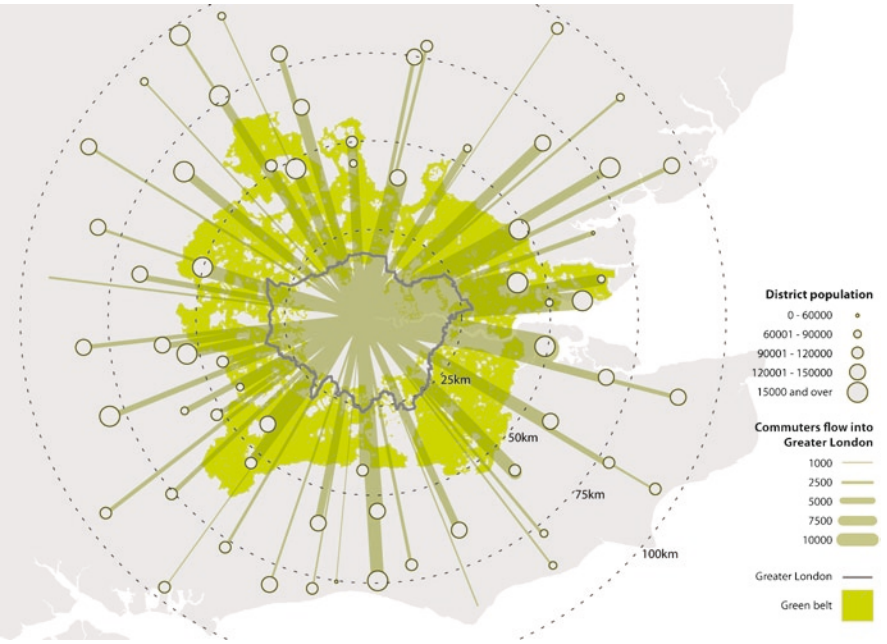

Fig. 9-7. Commuting flows – green belt jumping. Source: Urban Age Programme based on Ordnance Survey OS Master Map, Magic, UK Census 2001

developments occur in the countryside beyond the limits of green belts. This pattern leads to even longer commutes, more congestion, and greater car dependency, and severely compromises the sustainability targets set by governments. The latest U.K. census suggests that green belt jumping includes about 300,000 commuters within the region. The prevailing form of green belts closing in on the city further limits possibilities for the development of mixed-use public transport corridors along major radial rail lines (TCPA 2002). Finally, the vast public support for green belts is said to be based on a misunderstanding, with 60% of the population believing that their purpose is to protect wildlife (MORI 2006).[16] Therefore, it is said to be sensible to review the location of land to be protected.

Third is the need to re-assess regulatory instruments such as urban growth boundaries versus taxation of either transport or land. Economists frequently refer to UGBs as a second-best planning tool, emphasizing their regulatory rather than tax-based character. The primary purpose of any planning policy is to correct markets while increasing overall welfare, in which case instruments based on taxation should be considered first. For

[16]Ipsos MORI poll for the Barker Review of Land Use Planning.

example, it has been argued that UGBs do not generate the same level of densification of central areas as tolls on road transport (Brueckner 2007). However, economists suggest that the level of transport taxation needed to achieve similar goals as urban growth boundaries would actually reduce welfare levels compared to the status quo and that land taxation would be an appropriate alternative to land regulation. Most importantly, "revenues" generated by this policy can be redistributed effectively rather than the increasing property values generated by UGBs, from which only property owners profit (Cheshire and Sheppard 2002; Hepburn 2006).

9.5.3 The Value of the Green Belt

To conclude, while there is little doubt that the ideal form of urban growth boundaries is a system of corridors and spokes penetrating deep into the urban territory while allowing the city to expand into the broader region along established rail corridors with high public transport accessibility, it is both dangerous and naïve to relax established and successful land use protection. Policy experts warn that the implementation of a new green belt policy could prove difficult and would be a risky undertaking (Nathan 2007). Local authorities lack the strategic view to resist private-sector interests and a consistent green belt policy so far has proved effective.

To put it bluntly, it simply should not be a problem to accommodate even another million new residents within the boundaries of Greater London, while still keeping the entire city area at half the population density of New York City. In London alone, more than 450,000 new homes have been set as a development target between 1997 and 2015 (GLA 2005a, b: 6).

Arguably, second-best land use controls are more acceptable than the best tax approaches. They are easy to understand and can be communicated to the public successfully, as their current popular support shows. Finally, strategic land use planning operates with long time horizons and should embrace policies that can sustain themselves over a long period and during different political cycles. Taxation would be far too easy to change for opportunistic reasons in responding to popular demands by the electorate.

9.6 The London Plan

In 2000, the U.K. government's initiative to re-establish a London government paved the way for a citywide strategic planning instrument, the London Plan. The degree to which the London Plan rehabilitated the city's

positive attitude to strategic planning in general and integrated plan-led development more specifically can hardly be overestimated. A planning expert notes, "Undoubtedly, the whole structure of the London Plan, the statutory requirement for the mayor, who has the primary responsibility to create, review, and revise the London Plan with a requirement to integrate these different elements, has been the outstanding development of the past decade."[17] The plan was first published in 2004, putting an end to a period of nearly 20 years during which London did not have any strategic plan.

The London Plan is of particular relevance to international planning discourse, considering the difficult circumstances under which it operates. Urban governance, development and fiscal structures differ greatly between London and many European cities that on the whole have a long tradition of strategic planning. First, London does not have a tax base that allows for much financial freedom and its governmental powers at the citywide level remain limited compared to non-U.K. cities. Second, important implementation agencies largely belong to the private sector. And third, London is regarded as a difficult territory for planning because of a prevailing deep mistrust in government as a whole. Together, these factors tend to challenge any strong political visions coming along with a set of physical interventions.[18]

The London Plan is the mayor's spatial development strategy for Greater London. The plan is a legal requirement of the Greater London Authority Act 1999, and The Town and Country Planning (London Spatial Development Strategy) Regulations 2000. The process for setting up this strategic plan was itself heavily influenced by the European Spatial Development Perspective (ESDP) of 1999 (European Commission 1999). The ESDP is less of a master plan for development in the EU than an agreed commitment of all member states to advance its principles and strategies through adjustments to national planning policies. It refers to a central ambition for greater sectoral integration, including transportation and land use, and endorses policies for "Better co-ordination of spatial development policy and land use planning with transport and telecommunications planning" (European Commission 1999: 30).

The London Plan takes up many of the ESDP's recommendations and, while being a spatial strategy, addresses a cross-section of policy fields. Its provisions include sustainable growth, quality of life, economic growth, social inclusion, accessibility, design quality, and climate change adaptation

[17]Expert Interview, Urban Planner, Bartlett School, London, 2007.
[18]Stakeholder Interview, Senior Officer, Design for London, 2007.

(GLA 2004). However, as experts point out, the London Plan has a particular emphasis on housing and responds to the city's core challenge, which is not covered by any other strategy document of similar stature.[19]

The plan was prepared by the Greater London Authority (GLA) and is binding on the GLA family including Transport for London, Design for London, the Police and Fire Departments, the Olympic Development Agency, and the London Development Agency. All are directly placed under the Mayor of London, who facilities overall integration and publishes the London Plan as a holistic vision for the city's future.[20] The plan directly addresses the key challenges facing the city and has accelerated the implementation of appropriate measures.[21]

For boroughs, however, it largely acts as a guiding document, although the Mayor has the authority to veto planning consent given by boroughs when such consent violates principles defined by the London Plan. The plan's rather open-ended specifications for local-level planning are emphasized by its unique character. Despite its spatial focus, the London Plan is a text-heavy, 400-page document setting a strategic vision rather than a plan specifying territorial features or land uses based on a scaled map. In fact, the only maplike representation within the document is the so-called "key diagram" which has to be kept at a schematic level: "No key diagram or inset diagram contained in the spatial development strategy shall be on a map base" (Town and Country Planning Regulations 2000: Part I, 5 (4)). Instead, the key diagram identifies growth corridors, opportunity areas, and areas for intensification at the strategic citywide level. By doing so, it puts forward the principles of accommodating London's future growth on brownfield sites. The specific strategies for these corridors and areas are dealt with in greater detail by the relevant boroughs.

The key diagram of the London Plan further highlights other structural features, including the central activities zone, metropolitan centers, and major transportation infrastructure, as well as metropolitan open land and the green belt. For each feature, it refers to policies that are discussed below. The plan also sets a number of quantitative targets, such as 50% affordable housing for all new development (GLA 2004: Policy 3A.7: 64). This is, however, an aspirational target, as boroughs are merely asked to take this figure into account.

The process leading to the publication of the London Plan includes a statutory 3-month public consultation period. The consultation is based

[19]Expert Interview, Urban Planner, Bartlett School, London, 2007.
[20]Stakeholder Interview, Senior Officer, Transport for London, 2007.
[21]Stakeholder Interview, Senior Officer, Transport for London, 2007.

on a Draft London Plan and is followed by an Examination in Public, a government-appointed panel which tests the strategy for robustness, effectiveness, and consistency with other strategies and government policies. The panel then considers the responses to the consultation and publishes its report to inform the drafting of the Mayor's final London Plan.

9.6.1 Vertical Integration

The English planning system secures for the central government a key role in spatial planning. Its Department for Communities and Local Government establishes guidance for local planning and regional development strategies. There is no spatial plan for all of England. The top hierarchy of spatial plans is assigned to the regional level – the London Plan being one of these. It has a similar status to the Regional Spatial Strategies (RSS) prepared for two adjacent regions, East England and South East England. However, the integration of planning efforts between neighboring regions is limited, because of the general lack of coordination across English regions. The one exception is the London Green Belt, which is fully integrated with the regional strategies of all three regions within the London metropolitan area.

With regards to transportation, crucial powers remain in the hands of central government, given current funding mechanisms and central planning powers: "The system of plan-making (national guidance to the London Plan to Local Development Frameworks) facilitates integration. One difficult anomaly is that although the office of the Mayor has planning powers over major applications, central government reserves the right to 'call in' planning applications and trigger a public inquiry."[22]

Planning permission in London is granted by the city's boroughs, which traditionally have a high degree of control over spatial planning. Besides being the implementation agency for most spatial initiatives, they are responsible for developing so-called Local Development Frameworks (LDFs) that are currently replacing the former Unitary Development Plans. Among other objectives, the reason for introducing LDFs was to improve flexibility, reinforce plan-led development, strengthen community and stakeholder involvement, and ensure that key decisions are taken early in the planning process (ODPM 2004). LDFs have to follow the principles put forward by the London Plan and are tested for conformity before being published (ODPM 2004). Particularly within an international context, it needs to be emphasized that LDFs are by no means binding plans that directly pass on

[22]Stakeholder Interview, Senior Officer, Transport for London, 2007.

rights for development to individuals. For that, the English planning system still requires a planning process in which planning permission is ultimately given on a case-by-case basis.

9.6.2 Horizontal Integration

While the London Plan is the Mayor's central citywide plan, there are seven other statutory mayoral strategies. They include Air Quality, Ambient Noise, Culture, Economic Development (through the London Development Agency), Transport, Biodiversity, and Waste Management. The London Plan is the integrating framework for all the others.

In particular, the plan aims to integrate urban planning, design, and transportation with the main objectives of the Mayor's Transport Strategy, which was published in 2001 – prior to the London Plan. Here, key transportation targets, such as shifts in modal split, are put forward. The Transport Strategy considers the current modal split in central, inner, and outer London, and identifies 20-year targets to improve the balance between private vehicles, pedestrians, cyclists, and public transport. It was this strategy paper that laid the foundation for London's Congestion Charge (GLA 2001).

For the London Plan, this has led to the identification of growth areas based on public transport capacity. In the future, developments with high trip-generation potential must be located at places with high public transport accessibility (GLA 2004: Policy 3C.1: 103–104). The publication of so-called PTAL (Public Transport Accessibility Level) plans, which were prepared alongside the key transport strategy documents, has been highly influential: "Things like PTALs and the ways in which those are being used, scrutinized by the planning system, has meant that there has been a great deal of thought in a scheme-by-scheme basis, which has linked planning, development, land use and transport systems together."[23]

The London Plan's density matrix further sets standards for dwelling densities based on the level of transport accessibility. The better the public transport access, the higher the density level at which the area should be developed. Targets are also set for the reduction of car use in central London and for limiting traffic growth in inner and outer London (GLA 2004: Policy 3C.1: 103–104). The plan suggests that certain forms of developments can lower the need to travel by car and defines standards for the provision of private parking. It also deals with the design of public

[23]Stakeholder Interview, Senior Officer, Design for London, 2007.

space in relation to transportation strategies, and aims to promote walking and cycling.

The overall synchronization of the London Plan with its transport components is facilitated by Transport for London (TfL). "TfL has developed its transport plans in a way which supports the areas where uses are to be intensified. The draft London Plan was tested by TfL to assess whether its proposals could be delivered through the improved transport included in its Investment Plan… So for the plan to be approved, we have to go and say, 'Yes, we can do it.'"[24]

However, proposals put forward in the London Plan remain on a general level. Crucial elements of city design and transport integration, such as a decisive impact on urban form, are still constrained by the U.K.'s planning culture: "In terms of form and design, London is not a city which has traditionally been subject to a rigid set of design guidelines, although conservation is ensured through legislation… Many of the detailed decisions on form and design are taken at a local level by boroughs. Design for London has recently been established by the Mayor to take a strategic view of design."[25]

9.6.3 Success Factors

The London Plan is generally seen as having a positive impact. With its rather loose but inclusive vision, it is welcomed as a new instrument guiding future development in London – a city that has met most planning efforts with great skepticism. "The vision … from the mayor is a very general and a loose vision, although it is a very strategic vision. This is a vision that most Londoners, who are in a position to improve the city would in some way articulate, even if they didn't realize that it was the mayor's vision."[26]

When looking at its most relevant success factors, it is important to emphasize that experience with the plan is rather limited and its outcomes to date are hard to assess. Particularly its ability to integrate the various sectors of planning remains to be seen. However, several points have already emerged as success factors of the plan. They include the commitment to a clear vision, participation, transport agency backing, site-specific endorsements, strategic alliances, and plan updating.

[24]Stakeholder Interview, Senior Officer, Transport for London, 2007.
[25]Stakeholder Interview, Senior Officer, Transport for London, 2007.
[26]Stakeholder Interview, Senior Officer, Design for London, 2007.

The commitment to a clear vision is regarded as having had a particularly positive impact on follow-up decision making. In the context of its overarching objectives, certain aspects of the plan have become more comprehensible and can be translated more easily to sectoral strategies and to the local implementation scale.[27] As a spatial strategy, the London Plan's clear ideas for compact urban form and brownfield site development have triggered a process of rethinking urban development in the city, particularly for Inner London.

Urban transportation, which for decades has been identified as one of the most significant pressure points in London, is centrally acknowledged by the London Plan and its transport-related strategies profit from far-reaching transport agency backing. The plan's strong commitment to increasing residential density levels and adjusting overall development to transportation accessibility is exemplary. The approval of the London Plan by the city's transport agency is particularly effective, considering that Transport for London has been established as an integrated, multi-modal transportation authority.[28]

Without specifying particular land uses, the London Plan includes site-specific endorsements and crucial location-based considerations. The plan's designation of priority areas for redevelopment can be interpreted at a local level by the boroughs. Since 2004, a number of these areas have been the site of new developments, including Stratford, Greenwich, and King's Cross. In this context, the London Plan is able to successfully combine the interests of the private sector and national policy for more sustainable urban development.

The strategic alliance with national policy further spurs efforts regarding the key development corridors put forward by the London Plan. At the same time, they are part of the core strategy of national government. A planning expert has remarked that the two growth corridors in the London Plan "are remarkably well integrated with national strategies, because they form the start of the two major development corridors under the national 2003 sustainable communities plan."[29]

The way the London Plan has been set up also allows for a further crucial success factor, and that is frequent updating. Experts repeatedly emphasize the importance of operating with a "living document" – a plan that adjusts to changing circumstances: "What you would expect in fact is happening with the London plan. It is being revised and updated in the light of experience and the change in demands. For example, it is being updated to take into account climate change and so forth."[30]

[27]Stakeholder Interview, Senior Officer, Transport for London, 2007.
[28]Stakeholder Interview, Senior Officer, Transport for London, 2007.
[29]Expert Interview, Urban Planner, Bartlett School, London, 2007.
[30]Stakeholder Interview, Senior Officer, Transport for London, 2007.

9.6.4 Critical Comments

As a new strategic planning instrument, the London Plan is far from perfect. Most noticeably, it has little direct power to steer developments on the ground. Furthermore, any agenda for holistic integration of spatial planning from the national to the local level is often exposed to great skepticism by a political system eager to maintain the status quo of power sharing. This is particularly pronounced for London, since it is the country's economic powerhouse.

First and foremost, vertical integration remains largely unsatisfactory. Serious shortcomings of the London Plan's relationship are identified at the regional and national levels, as well as the local (borough) level. Concerns highlight in particular the absence of coordination within the metropolitan region. A planning expert has stated that "There are very serious issues of how the London plan joins up or does not join up with the plans of the regions immediately outside London's boundaries. This, I would say, is one of London's major issues."[31] Missing vertical integration with the local level is even more severe for its actual impact on the ground. Here, the London Plan's fate is a combined result of its own non-binding character for local planning and the limited powers that were given to the Mayor of London to implement a citywide strategy: "If the mayor has been given the job of strategic planning, he has to be given the capability to deliver that plan, even when the boroughs may not agree with him."[32]

These tensions are even more pronounced in relation to housing, where the mayor would like the power to intervene in details such as specific planning applications. Additional risks for integration stem from a lack of funding that prevent desired projects from being implemented. Here, London-wide strategic planning is fundamentally constrained by its dependence on national financing schemes.[33]

A particular struggle to implement the specifications of the London Plan is ultimately related to refraining from binding land use standards. While development may or may not occur in the identified opportunity areas with corresponding public transport accessibility, there is a great risk that ground realities will not follow the compact city standards that were set for London.[34] Similarly, the Plan's quantitative standards for housing, density,

[31]Expert Interview, Urban Planner, Bartlett School, London, 2007.
[32]Expert Interview, Urban Planner, Bartlett School, London, 2007.
[33]Stakeholder Interview, Senior Officer, Transport for London, 2007.
[34]Stakeholder Interviews, London, 2007.

and parking are often not followed by boroughs and developers when implementing actual projects.

An area where many of the problems of the London Plan become evident is the Thames Gateway, the city's most important development corridor along the former industrial land framing the river Thames east of central London. On the one hand, the city's strategy for compact urban development relies heavily on public transport accessibility that can be delivered only by new rail infrastructure financed by central government.[35] On the other hand, local implementation of the plan's general strategy is compromised by a multiplicity of boroughs and agencies within the area.[36] Begg and Gray confirm these problems: "The proposed 'Thames Gateway' development illustrates how difficult it is to integrate policies under current administrative structures" (Begg and Gray 2004: 161).

An often-criticized lack of integration is also highlighted by the London Plan's weakness in setting a clearer agenda for polycentricity. Here the plan follows a strict logic of promoting short-term economic growth by increasing office concentration in Central London. At the same time, it neglects opportunities for strengthening town centers – a spatial strategy with great opportunities for shifting transport behavior towards walking, cycling, and public transport due to shortened journeys.[37] It is further related to orbital transport strategies that focus on radial railway developments – again something that has not been prioritized by the London Plan.[38]

In that sense, the London Plan encourages a zoned city and continues with London's tradition of having a central business district embedded in inner and outer rings of housing. Traditionally, this pattern has resulted in longer commuting distances and times – a crucial issue left unanswered by the London Plan. On the contrary, London continues to struggle with fully breaking the logic of vertical office growth in the city center, along with the horizontal spread of housing. Although frequently referenced, the related issue of small- and large-scale mixed use is not treated in the London Plan as part of a strategy to reduce the need to travel. As already mentioned, by refraining from taking a clear position on citywide land use patterns, the plan neither clarifies the appropriate scale nor the degree of mixing different types of uses. Closely related is the London Plan's struggle to address development patterns in outer London, where town centers

[35]Expert Interview, Urban Planner, Bartlett School, London, 2007.
[36]Stakeholder Interviews, London, 2007.
[37]Stakeholder Interview, Senior Officer, Transport for London, 2007.
[38]Expert Interview, Urban Planner, Bartlett School, London, 2007.

face stiff competition from new shopping centers. The loss of these centers would mean a setback for sustainable city development.

9.7 Conclusion

The creation of the Greater London Authority has clearly improved London's capacity for strategic citywide planning. In particular, a combination of the legacy of the city's green belt, the introduction of the London Plan, and the creation of a multi-modal transport agency has improved the integration of city design and urban transportation. The synergy of these components have further created a clearer agenda for more compact urban form.

However, the improvements also reflect on the far-reaching fragmentation that dominated planning in London during the 1980s and 1990s. Probably no other large European city was confronted with the same degree of incrementalism, whereby spatial planning and transportation were also entirely separated. The initial failure of the Canary Wharf redevelopment project is only the most symbolic outcome of these severe shortcomings; numerous other examples highlight the past lack of integration.

Following years of efforts to amend a system that was entirely developer-led by introducing critical plan-led components, London is still far from many of its European counterparts. Nevertheless, it has successfully combined dynamic private-sector development with an innovative way of managing growth and shaping the city's urban fabric.

The election of a new Mayor of London in early May 2008 will further prove whether London's new institutional arrangements and strategic planning system operate effectively, based on its structure or whether its success relies on the strong political leadership London has been exposed to over the last 8 years.

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