

To cite this article: Geissler, J-B., Tricarico, L & Vecchio, G. (2017) The Construction of a trading zone as a political strategy: a review of the London Infrastructure Plan 2050, *European Journal of Spatial Development*, 64. Available from: [http://nordregio.se/Global/EJSD/Refereed articles/Refereed\\_64\\_Geissler\(2017\).pdf](http://nordregio.se/Global/EJSD/Refereed%20articles/Refereed_64_Geissler(2017).pdf)  
Online publication date: July 2017

Publication details, including  
instructions for authors:  
[www.nordregio.se/EJSD](http://www.nordregio.se/EJSD)  
Indexed in Scopus and DOAJ

# The construction of a trading zone as political strategy: a review of London Infrastructure Plan 2050

*Jean-Baptiste Geissler, Luca Tricarico and Giovanni Vecchio*

## Abstract

The recent London Infrastructure Plan 2050 appears as an attempt for coming up with innovative answers to infrastructure issues, aiming at providing new spaces where different actors can collaborate, defining adequate visions and governance bodies. Our hypothesis is that the plan can be interpreted through the relevant and yet ambiguous concept of 'trading zone', which highlights the setting up of new spaces for confrontation but also shows their use as political vehicles to advocate for increased powers and resources. To investigate the issue, the paper reviews the literature on the concept of trading zone in order to discuss in this perspective the London Infrastructure Plan planning process. The analysis is developed as follows: after a theoretical discussion of trading zones and their relationship with infrastructure planning processes, two significant aspects of the London Infrastructure Plan are examined: the stakeholders' engagement required by strategic planning processes, and the ongoing planning processes of London, influenced by the Localism agenda. Consequently, the London Infrastructure Plan 2050 is described and reviewed in the light of its political strategic meaning, providing a discussion of its vision, contents and planning process. The analysis uses and rediscusses the concept of trading zone by observing how local authorities may use planning processes to strategically position themselves and influence the complex governance of infrastructure planning.

**Keywords:** *infrastructures; trading zone; strategic planning; infrastructure planning; urban politics*

## AUTHOR INFORMATION

**Jean-Baptiste Geissler**  
PhD Candidate in Urban  
Planning, Design and Policy,  
DASTU, Politecnico di Milano,  
Italy.  
E-mail: [geissler.jb@gmail.com](mailto:geissler.jb@gmail.com)

**Luca Tricarico**  
PhD Candidate in Urban  
Planning, Design and Policy,  
DASTU, Politecnico di Milano,  
Italy.  
E-mail: [luca.tricarico@polimi.it](mailto:luca.tricarico@polimi.it)

**Giovanni Vecchio**  
PhD Candidate in Urban  
Planning, Design and Policy,  
DASTU, Politecnico di Milano,  
Italy.  
E-mail: [giovanni.vecchio@polimi.it](mailto:giovanni.vecchio@polimi.it)

# 1. Introduction

In an increasingly connected economy, the networks and infrastructures' contribution to local economic development can be considered a mantra in regional and urban strategic policy-making (Flyvbjerg, 2005). Networks and infrastructures influence resilience of urban systems (Wilkinson, 2012; Crawford & Davoudi, 2009) and they have strong implications on governance schemes and institutional arrangements (Castells, 1996). In this paper we discuss an arguable infrastructure strategic planning practice, showing the possible contradictions emerging from the decision making and stakeholders' engagement processes and technical, political and organizational outcomes. In our view this is a direct effect of infrastructures' strategic power in connecting material and immaterial urban elements - from people to objects and information (Hannam et al, 2006), being crucial drivers of urban growth and determiners on future trajectories of city developments.

Infrastructures bring together multiple subjects and territorial levels: they cross multiple scales, from the local to the supranational (Jensen & Richardson, 2004); they affect differently diverse settings and groups (Graham & Marvin, 2001); they also involve a number of actors representing different interests in various arenas (Bobbio & Dansero, 2008). For instance, infrastructures such as those for electricity or water provision often remain largely outside the control of metropolitan authorities, under the supervision of national regulators and large private companies (service providers, producers, network developers) who in return are paying little attention to local urban development strategies and initiatives. In this way, global connections often determine local (dis)connections (Graham & Marvin, 2001). It is therefore crucial for cities to develop long-term visions and adequate governance bodies that would enable them to define and implement coherent strategies on infrastructures, promoting both growth and resilience.

The recent London Infrastructure Plan 2050 (LIP 2050) provides a significant example of such an effort, at least in its rhetoric. London's decision-makers focus on infrastructures as key elements to foster development, arguing that global cities require a peculiar, tailor-made form of governance that would give them the flexibility and authority required to answer the specific challenges they are confronted with. Through the analysis of the 2050 London Infrastructures Plan's we discuss whether this particular piece of urban infrastructure planning is framed in terms of coping with these emerging issues or as a political strategy. From our perspective, this planning effort seems to be taking place mostly outside the statutory planning scheme, coupled with an effort of out-of-the-box stakeholders' inclusiveness in order to establish opportunities of confrontation with the institutions currently in charge of infrastructures planning. This process is gathered in the LIP 2050 report and materialised by the creation of a new body, the London Infrastructure Delivery Board (LIDB). In the paper we thus discuss the strategic nature of the LIP 2050 interpreting it as the occasion to create a 'trading zone' (Galison, 1999), that is to say a space of confrontation where to gather the many stakeholders active in the field of infrastructures.

Our hypothesis is that the former Mayor of London Boris Johnson, who promoted the LIP 2050, has been using this cross-sectorial strategic project not only for creating a trading zone between actors and unlocking actions, but rather to position his administration at the stakeholders' table and lobby for increased powers and resources. This process would ultimately allow the Mayor of London to gather under his supervision scattered competencies and gain control over his own development, an interpretation based on the ongoing development of London and on the specific local inflections of the British planning system. To explore this hypothesis, the paper discusses the background of LIP 2050 from two theoretical perspectives. The first section provides an interpretation that relates infrastructure planning to the construction of trading zones (section 2). The second one describes the London playground, considering the peculiarities of the UK planning system and the possible meanings assumed by London strategic vision of infrastructure development (section 3). Then, the LIP 2050 is discussed in the light of its strategic meaning in both analytical and policy perspective, focusing on its vision on the interactions between stakeholders and on the planning results (section 4). It focuses on energy and water supply, new fields of action for the Greater London Authority (GLA). Finally, conclusive remarks provide a discussion of the LIP 2050 as a strategic move (section 5) as well as of the trading zone concept that frames its interpretation (section 6).

In order to understand the different political implications and positions this paper has been developed mainly through the literature review on the strategic planning field and of different policy documents related to the LIP planning process, including several newspapers' articles. In particular, an overview of the London Infrastructure Plan 2050 is provided by summarising its features and interpreting them in the light of the trading zone concept; taking into account three main elements: the vision put forward, the planning process that led its establishment, and the contents of the plan.

## **2. Spaces of engagement and trading zones in infrastructure planning processes**

From a governance perspective, infrastructures are relevant, and even major, items, characterised by a strategic nature (Offner, 2000). They provide the necessary support for manifold urban practices and may also act as tools for strategies, referred to specific stakeholders and a larger spectrum of players. Observing the LIP case, the infrastructure planning process seem to follow a pattern similar to many large scale projects (Pinson, 2009). Therefore, this large infrastructure plan seems to represent a tool for their initiators to recompose local governance and reshuffle the cards of the different players, sometimes even leading to a significant redistribution of powers and competences. These mechanisms can work at different levels, since networked spaces across all infrastructural sectors are being constructed, legitimised and maintained – politically, socio-technically, legally and geographically – in different ways (Graham, 2000). But the greater challenge perhaps is to under-

stand how intertwined networked spaces fit more broadly into what Harvey (1996, p. 260-261) called the ‘co-gredience’ of contemporary metropolitan life – “the way in which multiple processes flow together to construct a single consistent, coherent, though multi-faceted time-space system”. By nature transversal, infrastructures challenge institutions and boundaries already questioned by globalization forces and pressures as identified by Sassen (2006): these are particularly sensible in a ‘global city’ such as London, where they seem to originate a peculiar path, different from other European experiences.

In terms of strategic choices, the current European frameworks for transport and energy issues (EU Commission, 2011; EU Commission, 2014) see these as interrelated fields where to intervene in order to guarantee a sustainable future, focusing on the environmental externalities produced by the mobility and energy industries. A predominant environmental concern influences the inspiring principles of these documents, as well as their planning reflections (as demonstrated for example by the European-driven Sustainable Urban Mobility Plans; see Wefering et al, 2014): in particular, actions in the domains of technology, economy and finance, and regulation and planning are favoured (Banister, 2010). While this articulation of actions is somehow part of a mainstream approach to the issues of sustainable development (Arsenio et al, 2016) and can be found also in London, different is the underlying rationale that inspires them.

Even when facing infrastructural issues, the UK and London<sup>1</sup> seem to overlook the European focus on sustainable development (with its environmental emphasis) and to privilege the promotion of economic growth. At the national level, the prevailing planning attitude “continues to avoid any spatialized approach to the infrastructure field, except that which continues to go on within the relevant companies and bodies which plan for their own particular fields” (Marshall, 2014, p. 24). London instead focuses on its own development and already shows the highest concentration of business activities in England (21%): their volume and density are far greater than anywhere else, with a disproportionate development in comparison to other English regions (Berry et al, 2015). Similarly, London receives the highest amount of planned public investments for infrastructure, as the National Infrastructure Pipeline shows (Infrastructure UK & HM Treasury, 2015). The 22% of national investment on infrastructures is directly attributable to London, without considering projects like the proposed Crossrail 2 rail line and the expansion of Heathrow Airport. These figures show a potential conflict between London and the National Government. While infrastructures are crucial for the further development of a global city, the government has already claimed the need to reduce (public) investments in London in order to increase investment in other British regions, especially in the North: “the powerhouse of London dominates more and more”, as the former Chancellor of the Exchequer stated (Osborne, 2014).

This conflictual dimension of infrastructure planning processes has much in common with similar European dynamics, where the confrontation of subjects and interests active around infrastructures encom-

passes different dimensions: policy and its fragmentation, competition between different objectives, uneven distribution of resources and benefits. Different are instead the government tiers involved in the confrontation. For example, the protests around a planned high-speed railway line in the Italian Val di Susa – part of the Ten-T Mediterranean corridor – directly challenged community infrastructure strategies and the national governments in charge of their implementation. Instead, the British case seems to convey more a national dimension of conflicts, also due to its relatively marginal position within European infrastructural strategies: Great Britain is crossed by the Ten-T North Sea-Mediterranean corridor, but its main component affecting England – the Channel Tunnel – is already existing and actually is presented as a success story to justify the implementation of the whole corridor (EU Commission, 2016).

The mainly national dimension of British infrastructure-related conflicts between local and national governments seem well conveyed by the tormented history of London Heathrow airport, an emblematic example of how conflicts strongly influence the development of infrastructures and to some extent even question the possible effectiveness and neutrality of infrastructure planning. Heathrow's replacement (discussed since the 1970s) and its expansion with a third runway (currently debated) have activated multiple confrontations between government, local authorities (including London, due to its particular interest in the matter), thematic committees and technical authorities. But the political interest has been captured mainly by the local community of the Richmond area, strongly exposed to the externalities of the airport and its expansion project.<sup>2</sup> Recently, the endurance of the new cabinet led by Theresa May has been questioned due to the contradictory opinions on the very matter expressed by some of its most prominent members. Conflictual dynamics thus can effectively affect infrastructure proposals and hinder their implementation; it is for these reasons that, already in the 1980s, Hall (1982) included the Heathrow case in his collection of 'great planning disasters'.

The concept of trading zone seems to capture well the strategic nature of infrastructures governance and their planning processes. In this contribution we want to show that the concept can be used both as an analytical and normative approach in urban planning practices, when applied with due attention to different aspects of complexity. Here we will focus on the former, since an increasing number of policies and planning processes seems to follow its footsteps. From a normative standpoint, we consider that the overlapping of numerous fields, stakeholders and territorial scales, obvious in the very case of London, suggests that the development of a dedicated plan – such as the LIP 2050 – becomes a privileged occasion to confront different visions on the same issues. We propose thus to analyse the LIP 2050 as an attempt to create a space of engagement, definable as 'trading zone': it represents a context in which, "despite the differences in classification, significance, and standards of demonstration, two groups can collaborate" (Galison, 1999, p. 146). From a planning perspective, the relevance of the concept

roots back to the works of Lindblom (1959) and Simon (1955). Both exposed the insufficiencies of the rational approach to planning, because of the fragmentation of stakeholders (Lindblom, 1959) and imperfect information leading to limited rationality (Simon, 1955). Lindblom (1959) therefore coined planning as primarily a process of ‘muddling through’ difficulties, leading to partisan mutual adjustment between actors. This process, based on bargaining and compromise-seeking, could be re-interpreted as the creation of a local trading zone (Mäntysalo et al., 2011).

The literature on trading zones has usually framed the concept as a tool for communication and coordination, contributing to the constitution of public arenas around public problems (Fedeli, 2013), offering the possibility to actors with conflicting views to go beyond their issues and avoid the trap of inaction. This seems to be the case for planning processes devoted to infrastructures, defining strategies for “the creation of partial agreements even among actors with different objectives and values” (Balducci, 2011, p. 536). In this way, it may be possible to address the current deficit of democracy in planning processes, allowing actors to coproduce and reframe the State–citizen relationship and the equal partnership between actors involved in the strategic planning process (Albrechts, 2013).

The trading zone concept may be a fruitful analytical approach when applied to infrastructure related issues. This has been noticed for infrastructures-related conflicts (Pucci, 2015), where it is easy to identify the stakeholders “to be mediated with and to engage in the generation of a shared trading zone” (Mäntysalo & Balducci, 2013, p. 190). In this sense, infrastructure plans and their development processes appear as potential trading zones.

Construction and management of infrastructures involve subjects who pursue different aims at different territorial levels: plans, intervening in given settings, may define the local as a space of engagement for actors, allowing even agonistic forms of trading (Mäntysalo et al., 2011). Through trading zones, planning becomes the intentional attempt to obtain “not the progressive persuasion of the actors about common goals to produce the right choices, but the creation of an area of understanding, exchange and translation between actors to produce partial agreements and innovations” (Balducci, 2015, p. 6). In this respect, in strategic planning practices of multi-actor collaboration it is also relevant to verify “the critical step related to the opening up of consensus-based governance networks more widely, to cover diverse interests not only related to economic but also social and environmental issues” (Kalliomäki, 2015, p. 114).

However, the nature of trading zones is not necessarily neutral. The establishment of an infrastructure planning process that gathers different actors around transversal planning issues, with high technical constraints and implying long-term visions, could be part of an actor’s wider strategy to establish its own position within a specific planning field. This ambiguous nature of trading zones, which may contribute to specific strategies rather than simply setting spaces for confrontation and agreement, frames our interpretation of the LIP 2050. The plan ap-

pears in fact as an occasion created by the Mayor of London to initiate a planning process and guarantee himself a dominant position by structuring a space of engagement for the different actors involved in London infrastructural developments.

### **3. Localism agenda and strategic planning in London**

In analysing the United Kingdom context, it is necessary to consider the process of network infrastructures privatisation from the early 1980s (involving for example mobility, telecommunications, water and energy supply; see Pollit, 2002). Following a neoliberal public management strategy, the role of the State virtually ceased in infrastructure provision. According to the concept that Nozick (1974) defined as ‘minimum State’, public provision is maintained only for the essential services such as health, education, and the services of administration of taxation and social security. While the State maintains a direct presence in road maintenance, its current role is mainly to mediate contracts with the privatized infrastructure companies (Helm, 2009). The State defines the roles of the parties, and it sets the powers and duties of regulators, bestowing much of the planning function to the local authorities. As it is often the case for infrastructures, physical networks, operators and regulators are intertwined in non-matching scales, creating a complex and uneven environment.<sup>3</sup> Regulation is dealt with at the national level, with autonomous bodies such as the Office of Gas and Electricity Markets (OFGEM) and the Water Services Regulation Authority (OFWAT), and the corresponding governmental departments (energy, environment). At the local level, boroughs and GLA share planning competencies, which have largely been redefined by the 2011 Localism Act (see below) and interact with infrastructure development plans although they do not have hierarchical relationships.

#### **The Localism Act and its consequences on London planning**

The first two years after the Coalition Government had taken office have been a period of rapid change in the framework for territorial planning and policies in England. The Localism Act became law in November 2011. In March 2012, the Government published the final version of the National Planning Policy Framework, which replaced all previous Government planning policy guidance. In July 2011, the then Mayor of London, Boris Johnson, published the London Plan, revising the spatial development strategy for London originally published by the former Mayor Livingstone in February 2004. The Mayor has consequently initiated a consultation on further changes to the London Plan, while Ministers have launched a further round of planning ‘deregulation’. The Localism Act enacted the abolition of Regional Spatial Strategies for English regions outside London. Regional Assemblies, the bodies responsible for drafting Regional Spatial Strategies under the 2004 Planning and Compulsory Purchase Act, were abolished together with the Regional Development Agencies and other structures of regional government such as the Regional Leadership Boards.

The impact of the Localism Act and this political shift is still being highly debated also in academia. A recent contribution, edited by Madanipour and Davoudi (2015), offers a collection of reflections and insights on the matter, gathered around the quite explicit title 'Reconsidering Localism'. Contributing to this collective book, Cowell (2015) reckoned that the localist agenda, as implemented by the UK government in the last few years, primarily resulted into a restriction of local public action rather than a multiplication of projects and initiatives. Actually, even if it improved the 'negative freedom' of local strategic planning actions, the national context of budget cuts led government to use it to reduce their perimeter rather than expanding it. In this context, London was however an exception.

The Mayor of London's strategic planning powers derived from the Greater London Authority Act (1999), with the powers extended in the Greater London Authority Act (2007). The Mayor of London became responsible for a Spatial Development Strategy for London (commonly known as the London Plan) and received powers to direct local planning authorities (LPAs) to refuse applications for strategic schemes that did not comply with the Spatial Development Strategy. The 2008 Act extended the Mayor's competencies to include the responsibility for the London Housing Strategy, which had previously been the responsibility of central government and strategic development applications from the LPA. In April 2012, the Mayor took over the responsibility of the London region from the Homes and Communities Agency (HCA), which was the main central government agency for funding new affordable housing, with the London HCA budget being transferred to the Mayor's control. The Localism Act abolished the London Development Agency, with its functions incorporated into the Greater London Authority structure. The Localism Act also gave the Mayor the power to set up Mayoral Development Corporations (MDC) in areas requiring regeneration, with the first MDC now established as the Olympic Legacy Development Corporation. The Localism Act established Neighbourhood Forums as well, related to a new tier of legally binding planning.

In summary London's regional government appears to having been strengthened in contrast with the rest of England. The Coalition Government's argument for this apparent anomaly is that the Mayor of London, unlike regional assemblies outside London, is directly elected. London remains the only locality to have a regional plan (the London Plan), but the effectiveness of its presence is questioned by issues of complexity and inadequacy. As for the first issue, the legislation does not simplify the planning process, since an additional tier has been added. In this way, "in London, for example, there could be (...): the London Plan, the Borough Local Plan and the Neighborhood Plan. Since all are required to be in general conformity with the higher tier, there are many opportunities for inconsistencies and questions of priority to creep in" (Bailey, 2014, p. 13). As for inadequacy, the issue is highlighted from an almost opposite point of view. The ongoing growth of London, characterised by the internationalisation of its job market, the increased housing demand and the consequent price inflation, cannot be accomplished within the



sole Greater London Authority and may require a wider perspective to be strategically tackled (Bowie, 2014).

Moreover, the process of approval of these plans has been modified, leaving GLA with little power over infrastructure development orientations. Actually, the public inquiry must now make sure that the plan is in accordance with the capacity and strategy of infrastructure and utility providers before adopting it. This new inclusion in the definition of the plan soundness, while augmenting its feasibility, automatically reduced the lobbying power of local authorities over utility companies.

In a sense, this process seems to have underestimate the objective of establishing a potential trading zone as a new space of confrontation between actors. In fact, the reduced space for interaction have diminished the opportunities of confrontation – even conflictual – between the involved subjects. In fact, actors appear to rather be moving towards different directions, as the next section discusses.

## **4. London Infrastructure Plan 2050: an overview**

### **Setting up the vision**

A progress report of the infrastructure plan team, released in March 2014, was the first document that appeared in public. In the introduction of that document, Boris Johnson intends to demonstrate the large support already present around his vision for the development of London: to do so, he explicitly connects the previous work of a committee formed by London Councils, the Boroughs and the London Enterprise Panel to his 2020 vision, set out in June 2013 in the aftermath of the 2012 Olympics (MoL, 2014a). The Mayor's 2020 Vision sets out the critical infrastructure required on the road to 2020 and beyond. The London Plan sets out London's needs to 2036, but it is currently undergoing further alterations due to a full statutory review, taking into account scenarios and suggestions developed in the LIP 2050.

The vision of LIP 2050 is summarised in the idea that “with the right infrastructure in place we can create a city where everyone's quality of life improves” (MoL, 2015a, p. 7). The vision is quite generic and bases this improvement on the exploitation of different infrastructures and technologies, as a tool towards environmental, social and economic sustainability. Each of these features is briefly explained, defining for every field (transport, energy, water, communication...) generic targets that only in a following section of the document have quantitative and temporal specifications. The overall idea of the plan is summarised in a sentence originally referred to the transport sector, stating the relevance of “ensuring the foundations for London's continued global success” (MoL, 2015b, p. 19): the LIP 2050 aims at sustaining the ongoing development process of the city, improving the equipment that reinforce the attractiveness of London. The plan is thus part of a strategy intended to maintain the global position of London.

The simplicity of LIP 2050's vision seems to be in line with the idea that the positive image of the city is based on those infrastructures and services attracting investors and visitors (Castells & Borja, 1996), as well

as it reflects the fact that “if a strategy has enduring power, it cannot avoid ‘reductive effects’ on future ways of understanding and acting. Spatial strategy making involves exercising the power to select and simplify” (Healey, 2009, p. 445). The simple vision of LIP 2050 fits into the idea that “visions and images for the future help in finding a way but at the same time produce new frameworks for action and redefine social and economic limits and political and administrative boundaries. The visionary and story-telling dimensions of planning are in this respect central” (Sartorio, 2005, p. 13), even if in this case the story told is simply an ongoing one. At least, differently from other cases, the simple vision is deeply rooted in the setting and the story of London, instead of being carried by the ‘transnational flow of planning ideas and practices’ (Healey, 2013).

In putting forward its vision for London, the LIP 2050 relies more on textual descriptions rather than on visual imageries. Cartographic representations of the strategies proposed in the plan are absent from the key documents, being available only in public presentations and supporting papers. As already done by the 2011 London Plan<sup>4</sup> the LIP 2050 provides a few schematic diagrams, intended to represent loose spatial strategies around which the consensus of manifold actors may be aroused more easily. Contrary to the London Plan, the LIP 2050 does not provide precise locations for interventions, but rather suggests the wider strategical schemes that may host such interventions. Moreover, the LIP 2050 only provides suggestive schemes, which appear as the complement of a strategy expressed with words rather than as a central element of the vision for London and its infrastructure. The plan reaffirms the idea of enablement and offers what could be defined as ‘cartography of opportunity’, in which schemes contribute to the creation of a trading zone by showing those elements that may originate manifold new initiatives (be them referred to coping with urgent issues, such as energy production, or to the creation of new relationships and connections at the national and the international scale) but without associating them too strictly to any specific location.

As for the choice of the 2050 temporal horizon, it derived from the literature review conducted from other cities that are undertaking long term infrastructure planning, considering that New York and Tokyo are planning to 2050, with New York going further and starting to look at 2100 (MoL, 2015b). In many cases, the plans are focused on addressing a particular issue: for example, Auckland’s 30-year infrastructure plan concentrates on the infrastructure required to reduce congestion. It appears that London is somewhat unique in looking across infrastructure types, assessing costs and including plans for funding and financing. This transversal attitude may call for inedited, devoted spaces of confrontation such as those provided by trading zones, even if this considerably widens the range of relevant actors and consequently the complexity of decisional arenas, potentially reducing their effectiveness. The LIP 2050 aims to keep London developing, improving the infrastructures that can contribute to this purpose. With this first document, the Mayor thus illustrated the long-term nature of infrastructure planning, the

next set of investments needed to be drawn up if London is to sustain and accommodate its growth for the rest of the first half of this century.

The focus on infrastructure and their long-term development stems from London Finance Commission (LFC, 2013), which made a number of recommendations to improve funding arrangements for London's government, primarily in order to meet the city's growing infrastructure needs. It argued that as data on the investment needs for the city are contained separately in many documents and that costs are often not properly understood, a more comprehensive assessment is required for London. Specifically, it recommended that the Mayor, working with London Councils, the boroughs and the London Enterprise Panel (LEP), should develop and maintain a long-term, high-level capital investment plan for the city. This should set out the costs of strategic investment options and match them to the resources available both now and in a future (maybe more decentralised) situation. The Mayor endorsed all the recommendations of the London Finance Commission and recognized the value in London's metropolitan government playing a more central role in planning for its infrastructure provision. The infrastructure planning process was commissioned in summer 2013. The LEP and its infrastructure subgroup, the London Infrastructure Group (LIG), provided strategic oversight for the program. They have been instrumental in setting the scope and approach; and providing guidance on emerging findings. An External Advisory Group was set up in September 2013 to provide further guidance and expertise.

The vision of LIP 2050 already seems to contribute to the establishment of a trading zone, where different actors may gather and confront their interests. The plan in fact puts forward a vision that is quite generic, whose few established features define an attractive scenario – “London's continued global success” (MoL, 2015b, p. 19) – that is already known and to which any subject potentially may want to take part. Instrumental in this sense is the adoption of a long-term perspective and the refusal of any strict spatial inflection of the LIP 2050's vision, in order to keep options open and expand the space of confrontation available to the many infrastructure-related actors.

### **Consultations, actors and interactions**

In October 2013, a debate on infrastructures was held at City Hall. Experts on the panel discussed their own views on infrastructure challenges, including how forward planning could be improved and considering funding and financing issues. The audience, who came from business, government and academia, was invited to contribute to the discussion. This event helped guide the internal deliberations at a relatively early stage. In late November 2013, the London Assembly Planning Committee held a session on the Long Term Infrastructure Investment Plan. In July 2014, the Mayor launched the infrastructure plan consultation as a subsequence of the vision document (MoL, 2014b).

The consultation lasted three months and in total 272 people responded to the LIP 2050 consultation (Steer Davies Gleave, 2015). This included 114 responses from individuals (41%), 30 responses from

London boroughs (11%), 28 responses from local authorities outside London (10%), 31 responses from businesses (11%) and 72 other organisations (27 %). Their responses focused on improving existing infrastructures (especially implementing technological innovations), using varied forms of funding (attracting private investments and investing locally a higher share of local taxes) and reducing the imbalances between different areas of the city as well as with the settlements bordering London. In particular, final key recommendations focused on three measures: prioritisation of south London infrastructure, coordination with local authorities outside London, and Thames Estuary airport. After the consultation, the Mayor established the London Infrastructure Delivery Board to collectively take the lead in improving delivery of London's infrastructure. London Mayor Cabinet involved in the strategy design process those actors they considered as crucial in order to allow sufficient investments in infrastructure. They are: subjects responsible for delivery and provision of infrastructures and services; local policy makers; national policy makers, entrepreneurs and professionals' coalitions; private corporations involved in infrastructures management and investments; regulators.

Noticeably, GLA's Planning team appears to be quite absent from the different steps of the process, contrary to consultancies, such as the one listed under the role 'advisor consultancies'. These advisors are the UK major consultancy companies involved in different advisory activities, concerning general public sector, constructions and infrastructure development, asset and facility management. These companies are already involved in several developments on London urban areas. The role of these actors is considered essentially strategic in order to gather the key private investments that have allowed the major transformations occurred in London in the last few years. While the vision (2020) shaped the global understanding of the city's development, it seems that the London Finance Commission (LFC, 2014, p. 5) has actually shaped the reflection. A large space was open to private actors of the domain, being they utilities or developers. Consultancy firms were also present at each step and represented in every decision or consultation body. The planning process appears thus to have a trading zone. However, this confrontational space is one characterised by an exhibited openness, which nonetheless privileges private actors already active in different development projects in London. This aspect may be interpreted as a further expression of the former Mayor's interest in showing his support to the ongoing growth of London, as well as to the actors that are participating in the process.

### **Planning results:**

#### **a framework of London Infrastructure Plan contents**

The process resulted in the adoption of a document, the LIP 2050, and in the creation of the London Infrastructure Delivery Board. The LIP 2050 provides planning guidelines that also orientate a full statutory review of the London Plan started in 2015, according to GLA's perspective and expectation on infrastructure developments. This loosely structured

process is described in the plan as: “The illustrative scenarios we have developed about how London’s growing population could be accommodated in the longer term (within London and beyond its boundaries) will serve as a starting point for the London Plan’s further consideration of growth distribution in and around the city” (MoL, 2015b, p. 45). The LIP 2050 moves from a long-term vision defining London’s infrastructural requirements, outlines sector-specific progresses and needs, and finally discusses priorities and timing for the implementation of the plan. The vision focuses on the support of London’s growth and how to face its most pressing matters, housing and infrastructures. Consequently, the plan estimates a number of cross-cutting and specific infrastructural needs across the city in a 2050 temporal horizon: an additional 1.5 million homes, a 20% increase in energy supply capacity, approximately £1 billion of healthcare investments over the next 5 years, around 50% of increase in public transport capacity, high speed digital connectivity, around 600 more schools and colleges, around 40 new facilities that will be used for recycling, remanufacturing, reusing and waste management, an extra 9000ha of accessible green space including 10% more green cover in central London, the Thames Tideway Tunnel and other water infrastructure.

For each sector of intervention, the plan aims to improve service provisions in areas with low levels of coverage. This improvement is required according to the will of pursuing the ambitious target of pro-

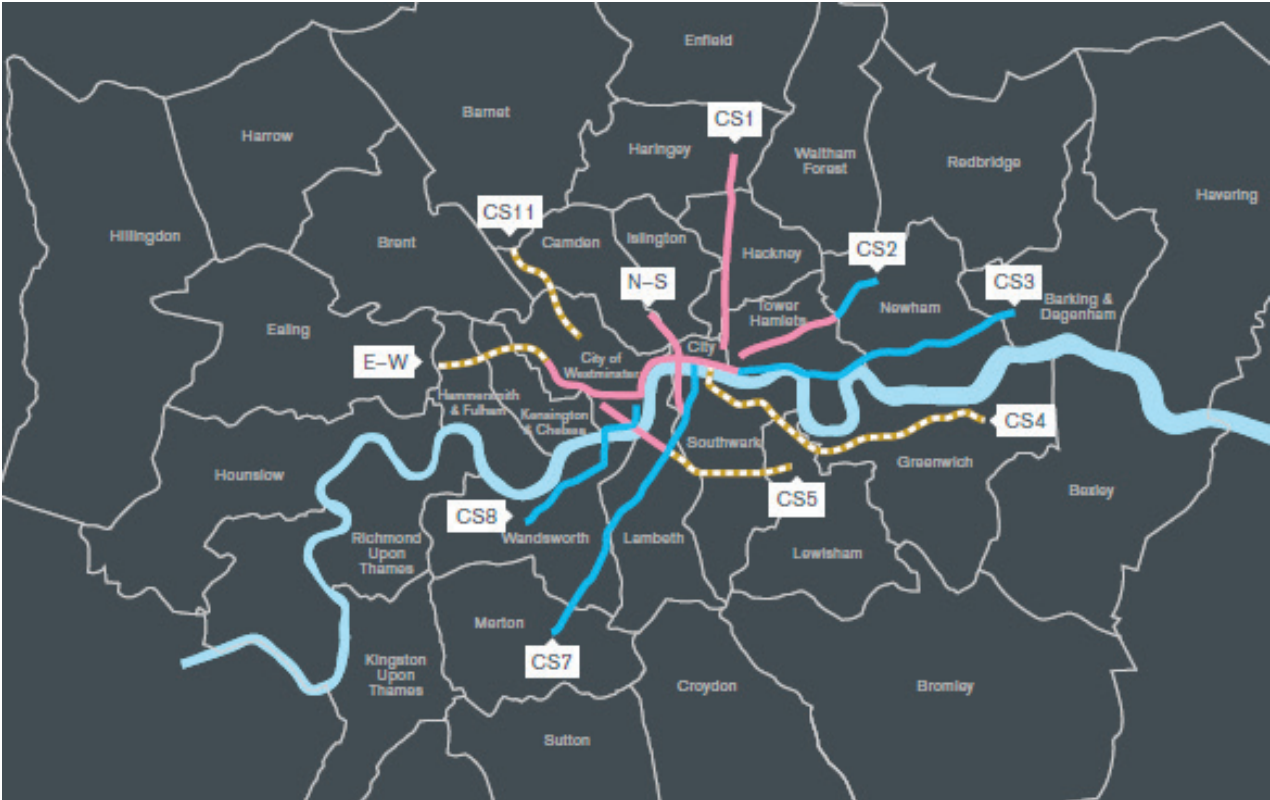


Figure 1: Scheme for Cross-rail2 (source MoL, 2015b).

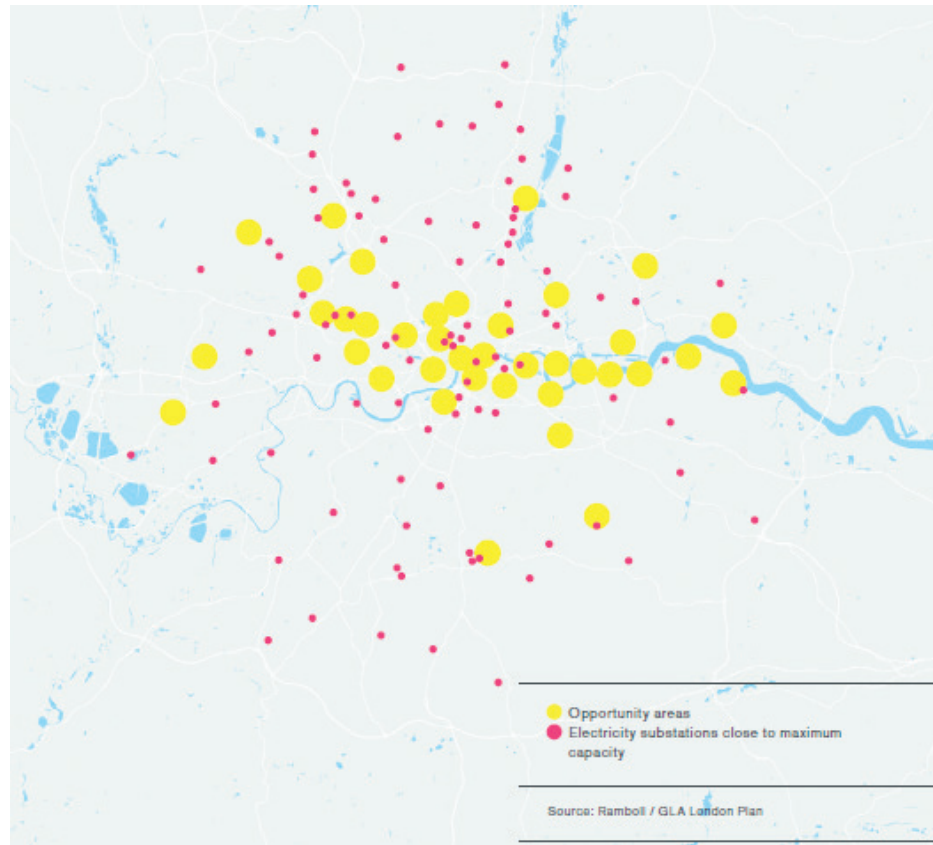
viding businesses and residents the connectivity needed wherever they are located, as soon as they need it, at competitive prices (MoL, 2015b). To do so, the few spatial schemes put forward the sector-specific measures emphasising the suggestive names of the areas where interventions will land (Figure 1), or providing even more vague development lines referred to the directions that will be involved in the interventions (Figure 2). In this perspective, both public transport and digital connectivity are crucial. To intervene on London’s public transports and opening to regeneration opportunities, major infrastructural network enhancements have been programmed as central interventions in LIP 2050 scenario; in particular, these include the delivery of Crossrail 2 (Figure 1), and plans for cycling and walking (Figure 2). For digital connectivity, the Mayor has set up a Connectivity Advisory Group (CAG) and a comprehensive work program to boost the virtual connection of some areas of the city.

Energy and water are central as well, given their enabling role for the overall growth of London. The overarching objective is to ensure that London’s energy infrastructure is developed in a way that delivers security and reliability of supply; affordability and cost-competitiveness of energy; and an 80% reduction in carbon dioxide emissions by 2050 in line with Mayoral and national government policy. National policy is leading to electrification of heating and transport, while the promotion of local energy production is intended to reduce energy costs and increase both resilience and efficiency. The plan proposes an energy strategy based on the analysis of energy supply and demand and associated infrastructure needs across the city, encouraging locally produced energy. Its spatial dimension (see Figure 3) suggests the idea of a “generalized” strategy distributed across the city, which makes it potentially attractive for many different actors. In order to set up integrated water

**Figure 2:** Plans for cycling and walking (source MoL, 2015b).



**Figure 3:** Energy supply and associated infrastructure (source MoL, 2015b).



management the plan has brought together the Water Advisory Group to ensure that the London Infrastructure Delivery Board receives the best advice on water-related issues. Despite the generic contents of the plan, the strategy is intended to foster an integrated water management framework across London and specific delivery areas, and to actively seek synergies with other utilities, housing and transport projects.

The overview of the LIP 2050 shows that the plan provides a general framework for London infrastructures in the next decades, drawing on guidelines reflecting the mayoral strategy and trying to gather most actors around a generic and yet desirable vision for the city's development. The unilaterality of the document is however limited by the quite open (although not always successful) consultation realised, as well as the early involvement of the sectors' key players. The Board is for now mainly a discussion and coordination arena, interpretable as an attempt of establishing a trading zone able to speed up the dialogue and enabling fast conflict resolution for more rapid infrastructure delivery. It could gain considerable importance, should the idea of drawing a 'programme plan for infrastructure', including phasing and coordination, come to reality.

## 5. The strategic features of the London Infrastructure Plan

As appears from the description above, the LIP 2050 and its by-products are still being developed. The interpretation of the plan that we propose as an attempt to provide a trading zone, a move characterised by an apparently strategic nature, is then partial and based on an ongoing process.

### **Creating a trading zone on infrastructure developments**

The LIP 2050 has been launched as a plan aimed at sustaining the ongoing development of London. Such an emphasis emerges not only from the contents of the plan, but also from a comparison with the current European frameworks for transport and energy issues. European strategies address these fields with a trans-boundary attitude that is somehow assumed also by London, due to its position and ambitions as a global city. But the European focus on the pursuit of a sustainable future is absent in the case of the LIP 2050. London in fact clearly focuses on fostering its own development. This clear statement defines a space of engagement where different actors can coordinate with each other, moving from the assumption that their different views have a common interest in supporting the current development of the city. In this sense, the process apparently respects the criterion of inclusiveness and participation one could expect from the creation of a trading zone. The prospective work, followed by an apparently open consultation that enriched the plan, is now being translated into the creation of consultation and decision arenas.

Trading zones as planning tools, as discussed in above, emerge as areas providing opportunities for new understandings and exchanges between actors who can eventually reach partial agreements. The trading zone is a new construction, intended to provide a previously missing space for interactions involving different stakeholders and aiming at the construction of consensus, or at least bargaining, amongst them: it thus appears as an opportunity that has not been available in former forms of engagement. Considering the manifold stakeholders involved in the London infrastructures and their relationships, the space of interaction provided by LIP 2050 does not seem to fit in the definition of trading zone, because the actors involved in the process were arguably already interacting before the process.

The novelty brought by the irruption of London's local authority in the sector would be the consultation of citizens, probably one of the strongest arguments for the downscaling of infrastructure planning and speeding up the devolution of power in that sector. Yet, this positive intention did not result into a very meaningful result, as stated by some critics and as emerges from the same planning process documents. On the one hand, "these opportunities have tended to attract a minority of active members of local communities which may have experience of community participation from previous initiatives" (Bailey, 2014, p. 14). On the other hand, limited were both the participation level and the actual impact that the conclusions of this consultation had over the behaviours of the sector's actors, and even over the public binding decisions (such as planning and financing). For example, not only were the emerging remarks quite generic (see Steer Davies & Gleaves, 2015), but they did not influence a planning process that actually did not come to its planned conclusion. In a sense, citizens do not take part in the interactions occurring inside the supposed trading zone of LIP 2050.<sup>5</sup> A similar absence is noticed considering the connections with the London Plan



and GLA's planning department, which appear to be scarce or even non-existent. An illustration of this is the internet page dedicated to the connection between LIP 2050 and planning issues, which remains strongly underdeveloped (see MoL, 2015c).

### **Positioning London and its local government as a player in the infrastructure debate**

By creating space for engagement in the form of a trading zone, GLA is positioning itself for future discussions. It created an arena in which it emerges as a leading actor, first of all vis-à-vis the public bodies in charge (regulators, central state and boroughs), but also vis-à-vis the utilities company. The emergence of new technologies (such as decentralised energy production) and the increased pressure resulting from climate change could very well turn the tables. In that case, the GLA would already be ready to assume leadership. The space for discussion provided by LIP 2050 in fact does not necessarily appear as a pure trading zone. While the trading zone should be a shared creation of different stakeholders (Mäntysalo & Balducci, 2013), it is the GLA that shapes the space of engagement related to the plan and assumes a guiding role. The univocal nature of LIP 2050 tends to suggest that stakeholders are brought in rather than actively participating to its construction. This aspect highlights the non-neutral nature that trading zones may assume, since they contribute to the individual strategies of specific actors: the actor promoting its establishment conditions the space for engagement they may provide. Moreover, its use within a wider strategy may give to a certain actor the role of initiator or director of a given interaction process. This hypothetical strategic use of the trading zone reinstates their agonistic nature, not just for the interactions they may host (Mäntysalo et al., 2011), but also for their very nature as spaces of engagement.

In the case of LIP 2050, the interest in a strategic use of trading zones can be explained considering that GLA still remains a 'small fish' when compared to utility companies such as Thames Water or EDF. Its influence over their business plans (if any) remains marginal and this situation will probably not evolve much in the coming years. To date, the central state is arguably the only public actor to have a say in medium to large-scale infrastructure developments (Marshall, 2014). Much has to be done before managing to effectively levelling the playing field.

### **Advocate/lobby for increased resource devolution**

Mayor Johnson's infrastructure planning effort could finally be interpreted as another move for gaining devolution of powers and resources from central state. In a pattern similar to the one followed by his predecessor Livingstone at the occasion of the Olympics (Newman, 2007), Mayor Johnson has been using long term planning to expand his influence over scattered competencies and claiming additional prerogatives (a process identified in other contexts by Pinson, 2009). This interpretation locates the repositioning of London within a wider national dynamic, characterised by potential conflict between London and the National Government. Again, the creation of an area of engagement on

infrastructures becomes part of a political strategy intended to advocate for expanded local powers by reaffirming the central role of GLA in the development of London, as well as the centrality of the city in the national development. In the present case, it is quite remarkable that the chair of the London Finance Commission, Professor Travers, advocated for “a greater fiscal autonomy” of London both in the foreword of the document that would shape the whole reflection on infrastructure development (London Finance Commission, 2013, p. 4). This autonomy could be more than a simply political target, since London may well use (if granted) this increased autonomy to solve climate-change related infrastructure issues; nonetheless, it does not appear as its primary objective in the process.

## 6. Concluding remarks

As per now, the LIP 2050 appears largely as Mayor Johnson’s tactical move to gain some additional resources and start positioning his administration for the future development in the field of infrastructures. Yet, should the ‘programme plan’ and the connections with the London Plan develop (which does not seem that likely in the near future), the present conclusions would have to be revisited. By interpreting the underlying planning process that led to the LIP 2050, we have been able to discuss the concept of trading zone, which seems to emerge from the approach of the plan. Actually, the enterprise of creating a new dialogue arena would then appear as a quite successful one in relation to the political statements made by the Mayor of London, as exposed in the various reports that accompanied the development of the plan. As previously discussed, the space for engagement appears more as the construction of a single actor rather than as a shared effort of different stakeholders. Moreover, the use of this space of interaction is strategic, aiming to position GLA in a leading position within present and future processes concerning London’s infrastructures and its overall development, also in a nationwide perspective. On the contrary, the vision of the plan (“with the right infrastructure in place we can create a city where everyone’s quality of life improves”) seems to be a general and shared purpose, around which even subjects with different aims can define mutual agreements – one of the conditions required to establish a trading zone.

Actors using the establishment of trading zones as a strategic move to position themselves within planning processes seem to question the original definition of a space intended as “an area of understanding, exchange and translation between actors to produce partial agreements and innovations” (Balducci, 2015, p. 6). In the light of the London experience in the field of infrastructures, the value of trading zones is not questioned, but rather their potential strategic meanings and uses are highlighted. The trading zone does not represent a neutral construction helping interactions, but could also have a strategic use, serving the purposes of specific subjects; for example, in this way the initiator may also acquire a more prominent position within the same space intended for engagement, when defining long-term visions or tackling specific planning issues. In this sense, we should bear in mind Kanninen, Bäck-

lund and Mäntysalo's warning (2013, p. 174): "when the analytical research tool is turned into a normative planning tool, we are tempted to do in normatively orientated planning research, we may lose sight of the deeper political ambiguities involved in planning and, related to this, sensitivity to local circumstances". Successful local case analyses of politically less contested trading zones in planning may be taken as normative and generalised models for future planning processes, thus misusing the concept. Thereby, we could end up offering planning tools and recipes that unwittingly carry characteristics of political domination, 'technicising' some of the political ambiguities and turning certain local peculiarities into default prescriptions for planning platforms.

In studying the LIP 2050, we have precisely tried to avoid this trap and highlight the political and strategical agendas that were operating behind a process that looked like a state-of-the-art trading zone construction. Our initial conclusions could however be re-examined considering the effective outcomes of a given planning process, in order to observe if the attempted strategic use of the trading zone effectively influence also the final results. If the conclusions on the LIP case are not definitive, the use of the trading zone concept may be helpful for analysing other experiences and may provide richer theoretical and operational understandings of trading zones, also contributing to deconstructing their strategic and political hidden contents. This could contribute to help tackling what too often remains a blind spot in the analysis of technical planning tools.

### **Acknowledgements**

This article is the result of a collective research activity undertaken by the three authors. The final written version of the first two sections can be attributed to Giovanni Vecchio, the third and the fourth to Luca Tricarico, the last two to Jean-Baptiste Geissler. We acknowledge the positive and constructive criticisms made by the reviewers and the whole editorial board which has helped making this manuscript much more effective.

### **Endnotes**

<sup>1</sup> London seems to have peculiar approaches to strategic infrastructural issues, which apparently resists the 'homogenisation' of national spatial strategies favoured by communitarian planning frameworks (Jensen & Richardson, 2004).

<sup>2</sup> The campaign against the third runway has been strongly supported by the Borough of Richmond (London Borough of Richmond upon Thames, 2015). The recent decision to expand the airport has caused the resignation of Zach Goldsmith, former Tory mayoral candidate for London and MP for the Richmond constituency (Siddique & Phipps, 2016).

<sup>3</sup> For example, in the field of energy (electricity) UK Power Networks is handling distribution in South East UK, but it stays connected to the national grid, while a variety of market operators are involved in the production and sale of energy; instead, as far as water is concerned, London is covered by four different companies, while the main infrastructures (e.g. the Thames Water Ring Main) are placed under the responsibility of Thames Water, definitely the main player in the sector.

<sup>4</sup> For a deeper analysis and a comparison with other contemporary metropolitan spatial plans in Europe see Elinbaum & Galland (2016).

<sup>5</sup> Recent contributions regarding actual practices and policy on citizens' activation in

local services development are given by Wills (2016), and Tricarico (2015; 2016).

## References

- Albrechts, L. (2013). Reframing strategic spatial planning by using a coproduction perspective, *Planning Theory* 12, 146–163.
- Arsenio, E., Martens, K. & Di Ciommo, F. (2016). Sustainable urban mobility plans: Bridging climate change and equity targets?, *Research in Transport Economics*, 55, 30-39.
- Bailey, N. (2015). Housing at the neighbourhood level: a review of the initial approaches to neighbourhood development plans under the Localism Act 2011 in England. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 1-14.
- Balducci, A. (2011). Strategic planning as exploration, *Town Planning Review*, 82(5), 529-546.
- Balducci, A. (2015). Strategic planning as the intentional production of a “Trading Zone”, *City, Territory and Architecture*, 2(1), 1-7.
- Banister, D. (2010). Sustainable urban development and transport -a Eurovision for 2020, *Transport Reviews*, 20(1), 113-130.
- Berry, C., Hunt, T. & White, L. (2015). Public infrastructure investment and business activity in the English regions, SPERI British Political Economy Brief, 15.
- Bobbio, L. & Dansero, E. (2008). *The TAV and the Valle di Susa: Competing geographies*. Turin: Allemandi.
- Bowie, D. (2014). The challenges of London’s growth: strategic planning and the failures of governance in the Greater South East. Paper presented at the Policy and Politics Conference, Bristol, 16th September.
- Castells, M. (2011). *The rise of the network society: The information age: Economy, society, and culture*. Volume 1. Oxford: Wiley.
- Castells, M. & Borja, J. (1996). As cidades como atores políticos [Cities as political actors], *Novos Estudos*, 45, 152-166.
- Cowell, R. (2015). Localism and the Environment: Effective Re-scaling for Sustainability Transition?. In Davoudi, S. & Madanipour, A (eds.) *Reconsidering Localism*. London: Routledge.
- Crawford, J. & Davoudi, S. (eds.) (2009). *Planning for climate change: strategies for mitigation and adaptation for spatial planners*. London: Routledge.
- Davis, J. & Thornley, A. (2010). Urban regeneration for the London 2012 Olympics: Issues of land acquisition and legacy, *City, Culture and Society*, 1(2), 89-98.
- Davoudi, S. & Madanipour, A. (eds.) (2015). *Reconsidering Localism*. London: Routledge.
- Elinbaum, P. & Galland, D. (2016). Analysing Contemporary Metropolitan Spatial Plans in Europe Through Their Institutional Context, Instrumental Content and Planning Process, *European Planning Studies*, 24(1), 181-206.
- European Commission (2011). White Paper Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system. Retrieved 17 June 2017 from <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52011DC0144>
- European Commission (2014). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions A Policy Framework for Climate and Energy in the Period from 2020 to 2030. Retrieved 17 June 2017, from <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52014DC0015>
- European Commission (2016). North Sea-Mediterranean Core Network Corridor. Retrieved 17 June 2017 from [http://ec.europa.eu/transport/themes/infrastructure/ten-t-guidelines/corridors/northsea-med\\_en](http://ec.europa.eu/transport/themes/infrastructure/ten-t-guidelines/corridors/northsea-med_en)
- Fedeli, V. (2013). Idea Competitions: Contemporary Urban Planning in Urban Regions and the Concept of Trading Zones. In Mäntysalo, R. & Balducci, A. (eds.), *Urban Planning as a Trading Zone* (pp. 37-55). Springer Netherlands.
- Galison, P. (1999). Trading zone: Coordinating action and belief. In Biagioli, M. (eds.) *The science Studies Reader* (pp. 137-160). Routledge: London.
- Galison, P. (2013). Trading plans. In Mäntysalo, R. & Balducci, A. (eds.) *Urban planning as a trading zone* (pp. 195-207). Springer Netherlands.
- Graham, S. (2000). Constructing premium network spaces: reflections on infrastructure networks and contemporary urban development, *International Journal of Urban*

- and *Regional Research*, 24(1), 183-200.
- Graham, S., Marvin, S. (2001). *Splintering Urbanism. Networked Infrastructures, Technological Mobilities and the Urban Condition*. London: Routledge.
- Hall, P. (1982). *Great Planning Disasters*. Berkeley: University of California Press.
- Hannam, K., Sheller, M. & Urry, J. (2006). Editorial: Mobilities, Immobilities and Moorings, *Mobilities*, 1(1), 1-22.
- Harvey, D. (1996). *Justice, nature and the geography of difference*. Oxford: Blackwell.
- Healey, P. (2009). In Search of the “Strategic” in Spatial Strategy Making, *Planning Theory and Practice*, 10(4), 439-457.
- Healey, P. (2013). Circuits of Knowledge and Techniques: The Transnational Flow of Planning Ideas and Practices, *International Journal of Urban and Regional Research*, 37(5), 1510-1526.
- Helm, D. (2009). Infrastructure investment, the cost of capital, and regulation: an assessment, *Oxford Review of Economic Policy*, 25(3), 307-326.
- Infrastructure UK, HM Treasury (2015). National Infrastructure Pipeline July 2015. Retrieved 17 June 2017 from <http://www.gov.uk/government/publications/national-infrastructure-pipeline-july-2015>
- Jensen, O.B. & Richardson, T. (2004). *Making European Space. Mobility, power and territorial identity*. London: Routledge.
- Kanninen, V., Bäcklund, P., & Mäntysalo, R. (2013). Trading zone and the complexity of planning. In *Urban planning as a trading zone* (pp. 159-177). Springer Netherlands.
- Lindblom, C.E. (1959). The science of “muddling through”, *Public Administration Review*, 19(2), 79-88.
- London Borough of Richmond Upon Thames (2015), Heathrow expansion - why we are against it. Retrieved 17 June 2017 from [http://www.richmond.gov.uk/why\\_not\\_heathrow](http://www.richmond.gov.uk/why_not_heathrow)
- LFC - London Finance Commission (2013). Raising the capital, The report of the London Finance Commission.
- LSE - London School of Economics (2013), LSE Professor calls for London to have a greater say over its taxes. Retrieved 17 June 2017 from <http://www.lse.ac.uk/news-AndMedia/news/archives/2013/05/LondonFinanceCommission.aspx>
- Mäntysalo, R. & Balducci, A. (eds.) (2013). *Urban Planning as a Trading Zone*. Dordrecht: Springer.
- Mäntysalo, R., Balducci, A & Kangasoja, J. (2011). Planning as agonistic communication in a trading zone: Re-examining Lindblom’s partisan mutual adjustment, *Planning Theory*, 10(3), 257-272.
- Marshall, T. (2014). Infrastructure futures and spatial planning: Lessons from France, the Netherlands, Spain and the UK, *Progress in Planning*, 89, 1-38.
- MoL - Mayor of London (2014a). Long Term Infrastructure Investment Plan for London, March 2014 Version. London: Mayor of London.
- MoL - Mayor of London (2014b). London Infrastructure Plan 2050. A consultation, London: Mayor of London.
- MoL - Mayor of London (2015a). London Infrastructure Plan 2050, improving quality of life as London grows. London: Mayor of London.
- MoL - Mayor of London (2015b). London Infrastructure Plan 2050 Update, March 2015 Version. London: Mayor of London.
- MoL - Mayor of London (2015c). Infrastructure Plan 2050 – Related work. Retrieved 17 June 2017 from <https://www.london.gov.uk/what-we-do/business-and-economy/better-infrastructure/related-work>
- Newman, P. (2007). “Back the Bid”: the 2012 Summer Olympics and the governance of London, *Journal of Urban Affairs*, 29(3), 255-267.
- Nozick, R. (1974). *Anarchy, State, and Utopia*. New York: Basic Books.
- Offner, J.M. (2000). ‘Territorial deregulation’: Local authorities at risk from technical networks, *International Journal of Urban and Regional Research*, 24(1), 165-182.
- Osborne, G. (2014). Chancellor: ‘We need a Northern powerhouse’. Retrieved 17 June 2017 from <https://www.gov.uk/government/speeches/chancellor-we-need-a-northern-powerhouse>
- Pinson, G. (2009). *Gouverner la ville par projet: Urbanisme et gouvernance des villes européennes*. Paris: Presses de Sciences Po.
- Pollitt, M.G. (2002). The declining role of the state in infrastructure investments in the UK. In Tsuji, M., Berg, S.V. & Pollitt, M.G. (eds.), *Private Initiatives in Infrastruc-*

- ture: *Priorities, Incentives and Performance*. Chiba: IDE JETRO.
- Pucci, P. (2015). Large Infrastructures and Conflicts: Searching for 'Boundary Objects' – Reflections from an Italian Experience. In Gualini, E. (ed.), *Planning and Conflict: Critical Perspectives on Contentious Urban Developments*. London: Routledge.
- Sartorio, F.S. (2005). Strategic Spatial Planning. A Historical Review of Approaches, its Recent Revival, and an Overview of the State of the Art in Italy, *disP*, 162(3), 26-41.
- Sassen, S. (2006). *Territory, Authority Rights: From Medieval to Global Assemblages*. Princeton: Princeton University Press.
- Siddique, H., Phipps, C. (2016), Heathrow expansion: Zac Goldsmith to resign over third runway decision. Retrieved 17 June 2017 from <https://www.theguardian.com/politics/live/2016/oct/25/heathrow-gatwick-airport-expansion-decision-day-politics-live>
- Simon, H. (1955). A Behavioral Model of Rational Choice, *Quarterly Journal of Economics*, 69, 99-118.
- Star, S.L. & Griesemer, J.R. (1989). Institutional ecology, translations and boundary objects: Amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, *Social Studies of Sciences*, 19, 387-420.
- Steer Davies & Gleaves. (2015), London Infrastructure Plan 2050 – Summary of consultation responses. London
- Tricarico, L. (2015). Energia come community asset e orizzonte di sviluppo per le imprese di comunità. *Impresa Sociale*, 5, 53-64.
- Tricarico, L. (2016). Imprese di comunità come fattore territoriale: riflessioni a partire dal contesto italiano. *CRIOS*, 11:35-50. DOI: 10.3280/CRIOS2016-011004
- Wefering, F., Rupprecht, S., Bührmann, S. & Böhler-Baedeker, S. (2014). *Guidelines. Developing and Implementing a Sustainable Urban Mobility Plan*. Bruxelles: Eltis.
- Wills, J. (2016). Emerging geographies of English localism: The case of neighborhood planning, *Political Geography*, 53, 43-53.
- Wilkinson, C. (2012). Social-ecological resilience: Insights and issues for planning theory, *Planning Theory*, 11(2), 148-169.