



Road space re-allocation

Organizational, institutional and political dimensions

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Summary

This report constitutes the first WP2 deliverable. It examines how road space allocation is addressed across different urban contexts an urban governance and a public policy perspective. It contributes to the understanding of transition management in the transport policy domain, from a car-oriented transport policy perspective towards the development of new policy approaches, such as one favouring sustainable mobility and over the recent period, place-making.

The report includes an up-to-date analysis of major institutional, organizational and political factors shaping the design and implementation of urban road space allocation strategies across the five cities: London, Constanta, Malmö, Lisbon and Budapest. Drawing on an original qualitative dataset, it examines which of the above-mentioned factors are likely to shape – accelerate, restrain – the development, at city-level, of new, comprehensive and systematic approaches to the management of road space on major urban TEN feed routes as a way to achieve multimodal optimization. It complements the work done by other partners at project level and contributes to the conceptualization, at project level, of urban roads as an ecosystem. The detailed, supporting analysis for each of the five cases is made available through “city portraits” in this report’s appendices.

Cross-city findings show that cities experience a range of challenges that puts considerable pressure on the existing road network. Changes in demographics and labour market, as well as the development of 24-hour activities account for rapidly evolving travel patterns to, from and within metropolitan areas across the world. The growth of tourism, the introduction of shared mobility services and e-commerce deliveries also put new pressures on road space to accommodate diverse modes and activities. In this context, growing cities face a challenge to retrofit road spaces to accommodate greater travel volumes, while improving the quality, and amenity of public spaces, achieving climate change goals, and ensuring an acceptable socio-spatial distribution of benefits and impacts.

The focus on institutional, organizational and political factors helps identify various coordination barriers to meet these challenges:

- The fragmentation of institutions responsible for road space across levels of government and within city administrations. As a result, they can have conflicting ideological and professional perspectives on the priority given to vehicles, pedestrians and other activities.
- Insufficient authority within municipalities or transport agencies to regulate road space, as well as weak metropolitan governance to resolve transport problems beyond the local or municipal scale.

- The disconnect between transport policy goals, as defined during strategic planning stages, and the organisational arrangements for implementation on the ground, due to the lack of follow-through capacities.
- Together, these multiple coordination issues account for the discrepancy between highly fragmented interests and the absence of a legitimate space, within existing forms of urban governance, to collectively define goals for road space allocation.

Yet the report also identifies the various ways through which cities try to overcome such barriers by experimenting with city-wide or micro-level governance and policy innovations. This confirms the critical role of cities as a relevant governance scale for achieving the shift from movement to place-making in transport by drawing on road space re-allocation strategies.



Road space re-allocation

Organizational, institutional and political dimensions

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1 Introduction

The development of new, alternative, diverse road uses challenges existing forms of allocating space on urban road networks¹. The focus on single transport modes or user groups when designing and managing road space neglects the critical role of the road network in urban life. A wide variety of interactions take place in urban roads and enabling traffic is not their sole purpose. A wider range of users such as motorists, pedestrians, cyclists, public transport, delivery operators, etc. increasingly challenge this one-dimensional approach to designing and managing the urban road network. They actively support the development of alternative road uses, such as recreational activities, as well as a multidimensional approach that considers health, climate change, urban planning or economic development issues. Together, these claims contribute to transforming the role and status of urban roads from a traffic-enabling infrastructure to a multifunctional urban asset, which in turn raises issues of regulation, coordination and governance, especially in those cities where space is particularly constrained.

Far from being limited to inner-city areas, these demands expand beyond cities' boundaries towards their metropolitan hinterland, including strategic road axes that are vital to the local, national and European economy. This in turn raises specific issues of coordination, regulation and, ultimately, of governance.

This report provides an overview of existing institutional, organizational and political responsibilities in allocating road space across five cities in Europe. It accounts for the main barriers and opportunities faced by local authorities in addressing new demands. It lays the groundwork for a more systematic analysis of the politics of road space allocation. A brief description of the MORE project is introduced in the following paragraphs, followed by a presentation of this report's main objectives.

1.1 Brief presentation of the MORE project

Cities are changing in many ways. Changes in demographics, labour markets and lifestyles account for rapidly evolving travel patterns to, from and within cities. Urbanization dynamics also contribute to increasing densities in core urban centres and to the development of 24-hour activities. A wider range of stakeholders introduce new technologies and mobility-related services. Together, these developments challenge the way through which urban governments plan, design and operate their road networks. They offer enhanced opportunities for dynamic space management of the urban road network.

The MORE project², “Multi-modal Optimisation for Road-space in Europe”, sets out to:

¹ Throughout this report, road space refers to all transport thoroughfares, from local streets to major highways. See below for a clarification on terms used.

² Multimodal Optimisation of Road space in Europe (MORE), funded under the European Union's Horizon 2020 Research and Innovation programme (2018-2021), grant agreement n°769276. See the European Commission's TRIMIS website: <https://trimis.ec.europa.eu/project/multi-modal-optimisation-road-space-europe> (last consulted 15/06/2019)

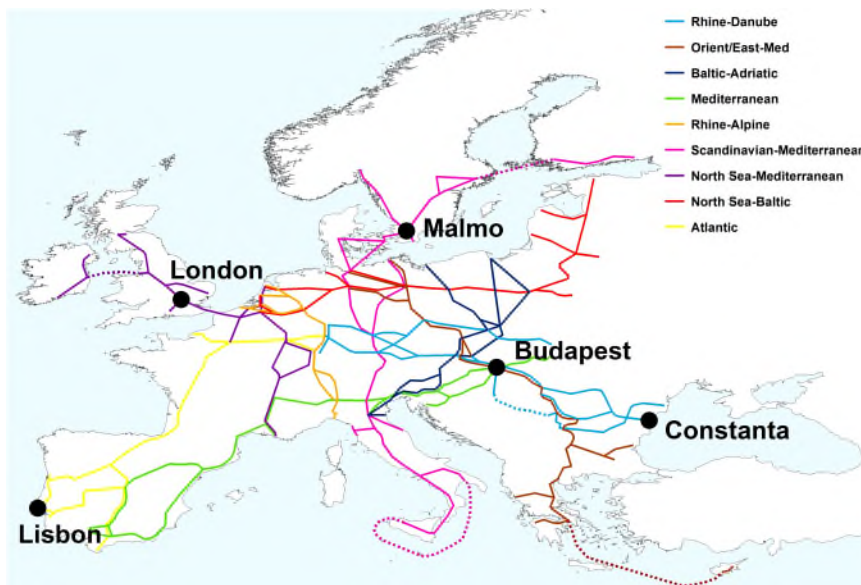
- Identify existing and future pressures (demographic change, technological advances) on the main roads in cities that connect the Urban Nodes – and their major attractors (City centre, port, etc.) – with the TEN-T (Transport European Road Network).
- Develop design tools and processes that will enable these key routes to be designed and planned in a way that make them responsive to future pressures, in a flexible manner, by exploiting possibilities for dynamic space management and operation.

This 18-partners’ consortium is led by Pr. Peter Jones, University College London and draws on a wide range of expertise.

1.1.1 The five MORE cities

Such developments are examined in the context of five European cities (see map below).

Map 1: MORE case study cities in the context of the TEN-T network



Source: MORE project, Grant agreement, Part B.

The cities range in size from around 300,000 inhabitants to over 8 million. Together, they interact with six of the nine TEN-T European road corridors³ and are strategically linked to key international rail, port and air hubs. They handle a complex mix of commuters, transit, freight, passengers, residential, business and tourist traffic. They share similar challenges of multi-sector stakeholder and governance structures, congestion challenges and limited road space to accommodate contesting uses and users. This is particularly exacerbated in TEN urban feeder routes, where the largest share of the technical work will be achieved as part of the MORE project.

1.1.2 Streets as ecosystems

The MORE project proposes conceptualizing urban roads as an ecosystem that is, as multi-functional, multi-users and multi-level spaces (Jones & al., 2019). This is done by shifting the

³ i.e. Atlantic, North Sea-Mediterranean, Scandinavian-Mediterranean, Mediterranean, Orient East-Med, & Rhine-Danube

attention from core network corridors to streets, from enabling traffic flows to accommodating multiple, diverse, inter-related flows and activities. It is grounded into a changed perspective of the road network, which challenges existing functions associated with the road network – traffic movement or place-making – as well as road classifications by distinguishing between roads and streets⁴.

This report contributes to the conceptualization of urban roads as an ecosystem by combining three different perspectives:

- Users, interests, claims - the different elements of the street, and the mobile (or immobile) people or vehicles that move through or occupy road space;
- Modes of regulation - the relations between the political, economic, environmental and social systems in which these people or vehicles are operating within;
- Forms of urban governance - the ability of urban governments to steer processes of road space re-allocation by reshuffling priorities and shaping their effective integration into policy processes and practices.

Clarification on terminologies, road versus street (adapted from Curtis and Jones, 2019)

- Road: generally used to describe the outer section of the road network (closer to TEN-T interface) which is higher speed, wider, less built-up, usually limited to motorized vehicle movement and with no direct frontage access.

- Street: generally used to describe the inner section of the road network (further away from TEN-T interface) with lower speed limits, which passes through residential or commercial areas, is narrower, more built-up, with non-motorised modes, street activities, parking/loading, multiple crossings and has many functions and hence different users.

While these developments are likely to affect the planning, design, operation and management of urban roads across cities, they also raise specific institutional, organizational and political issues and more specifically, issues of governance and contestation.

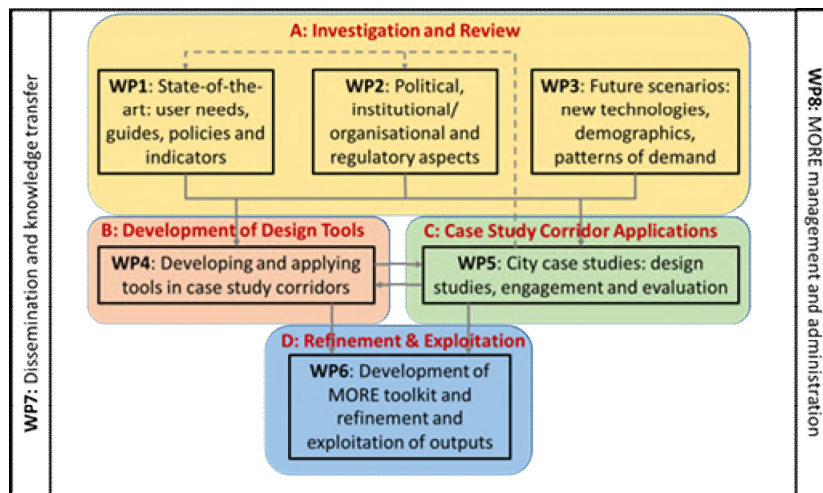
1.2 Organizational, institutional, regulatory and political factors: WP2 objectives

Work Package 2 focuses on the governance and contestation of road space. As long as cities have had road networks, streets and public spaces, their governance and use has been subject to contestation and politicisation. Making use of limited space and capacity often implies changes in road space allocation as well as prioritising between different uses, modes and activities. What are the main triggers? Which actors initiate and shape debates about road space allocation? How and by whom is it translated into policies, regulations, planning practices, etc. and implemented? Lastly, to what extent are such changes city-led, as opposed to wider technologically-, economically- or socially-led processes of change? How are difficult trade-offs and compromises resolved across different contexts?

⁴ This is further developed as part of the work done in WP5.

In complement to the work done in other work packages in the MORE project (see Figure 1 below)⁵, Work package 2 contributes to the MORE project by exploring the institutional, organizational and political issues raised by such claims. More precisely, WP2 seeks to understand how TEN feed urban routes “land” in cities and an urban environment, and the challenges this raises from a governance and a public policy perspective. By contrast to other WPs in the MORE project that focus on specific corridors in cities – TEN urban feeder routes segments – this study examines city-wide strategies about road space allocation.

Figure 1: MORE project’s work-package structure



© MORE project, 2018.

This work is achieved in three steps:

- Understand institutional, organizational and political responsibilities (T2.1);
- Explore existing types of traffic regulation (T2.2);
- Identify (new) demands for and challenges with alternative, more diverse street uses (T2.3)

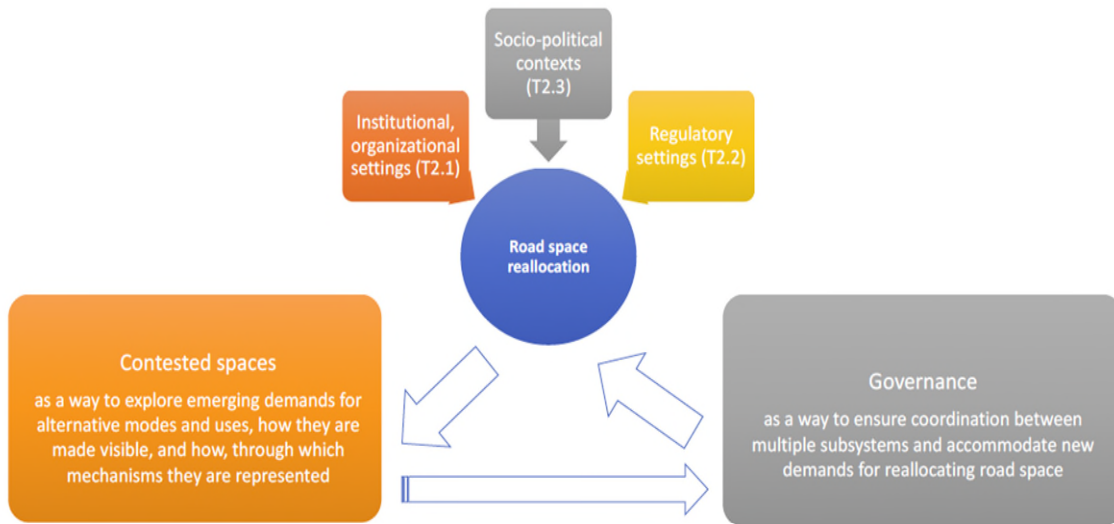
A summary is provided in the figure below.

While actions 2.1 and 2.3 are led by C. Halpern (Sciences Po, CEE) and J. McArthur (UCL) with contributions from all city partners and the support from TUD, UCL, EIP and Vectos, action 2.2 is led by Buchanan Computing⁶.

⁵ This work is complementary to the understanding of user needs, policies and guides (WP1) and the analysis of future scenarios on evolving patterns of demand (WP3).

⁶ Findings for both tasks will be introduced as part of D2.2 and D2.3, forthcoming (2020).

Figure 2: Overview of WP2



Source: C. Halpern, MORE project kick-off meeting, Brussels, 2018.

This report constitutes the first WP2 deliverable. It draws from the work undertaken as part of Task 2.1. Issues related to the regulation and the contestation of road space will be addressed, respectively, in D2.2 and D2.3.

Task 2.1: Mapping institutional, organizational and political responsibilities, interests and objectives; Identifying interfaces and barriers to improved design and operation.

Leader: Sciences Po; Partners involved: UCL, TUD, EIP, ECF, all city partners.

Duration: 10 months (September 2018-June 2019)

1.3 Report's main objectives

This report draws on the work done throughout WP2 to examine, across the five case studies, how the governance of road space relates to the optimisation of multi-modal corridors. It includes an up-to-date analysis of major institutional, organizational and political factors shaping the design and implementation of urban road space allocation strategies across the five cities. It examines which of these factors are likely to shape – accelerate, restrain – the development, at city-level, of new, comprehensive and systematic approaches to the management of road space on major urban TEN feed routes as a way to achieve multimodal optimization.

Main objective

To examine which institutional, organizational and political factors are likely to shape – accelerate, restrain – the development, at city-level, of new, comprehensive and systematic approaches to the management of road space on major urban TEN feed routes as a way to achieve multimodal optimization.

It seeks to answer the following questions, drawing on the urban and the policy studies literature:

- What - How are issues related to road space allocation framed in different urban contexts? To what extent does it consider this policy issue's multidimensional feature?
- When - Since when did road space allocation become an urban policy issue?
- Why - What were the main triggers, both internal and external?
- Who - Which actors contribute shaping the allocation of road space?
- How - How were these changes made material, both in terms of planning (e.g., policy resources and tools etc.) and implementation (e.g., consultation mechanisms, conflict resolution, organizational changes, etc.)?

In terms of data collection and analysis, the report draws on feedback from each city about why road space allocation has emerged as an urban public policy issue, the state of institutional and organizational factors in their respective context, and examines the various mechanisms introduced so far in order to overcome these barriers. In doing so, it identifies key policy documents, legislations and stakeholders involved in the design, implementation and management of road space allocation strategies in the five cities⁷.

1.4 Outline

The report is organized in four sections. *First* it introduces the analytical framework we used in order to understand the role of institutional, organizational and political factors in shaping the added value of a governance and public policy perspective for understanding ways in which road space allocation is planned and achieved across different contexts. *Second* it develops a common methodology for data collection and analysis across the five MORE cities. *Third*, and for each city, it assesses data availability, establishes a list of key stakeholders and interviewees, and produces a list of key references on road space allocation. *Fourth*, having mapped out institutional, organizational and political responsibilities in each city, it examines the extent to which such factors are likely to shape – accelerate, restrain – the development of new, comprehensive and systematic approaches to the management of road space.

The detailed, supporting analysis for each of the five cases is made available through “city portraits” in this report’s appendices.

⁷ This report is complementary to Deliverable 1.2, led by TUD. This report includes an up-to-date analysis of processes for management, design and construction; as well as processes for developing guides (who initiates, validates, what status that is, more or less binding etc.). It is also complementary to Deliverable 2.2, led by Buchanan computing, which includes all aspects related to regulatory issues, including enforcement.

2 Understanding road space allocation: literature review, main assumptions, analytical framework

2.1 Taking stock: lessons from the CREATE project

This study partly draws from the work done as part of the CREATE project, which accounted for the shift taking place over several decades towards a more comprehensive, place-based perspective and highlighted its main features from several perspectives such as values and behaviours, transport demand and its main determinants, technologies, public policy and governance, etc. (Jones et al., 2018).

Clarification on terminology: the movement and place classification (Jones, 2019).

It gives a simple way of recognising the varying functions and the degree to which urban roads and streets perform them, along their length. In particular, the tensions and conflicts between:

- Movement: facilitating the free movement of vehicles and people along the highway (by all modes of transport and for a variety of purposes) – which is a conduit for transport systems, connecting destinations outside the immediate vicinity of the area; and
- Place: supporting the functioning of the street as a destination in its own right - including the activities in the buildings adjacent to the street, the on-street parking, loading and bus stop provision needed to support them, and activities taking place on the street itself.

In terms of public policy and governance, cross-city findings from the CREATE project highlighted two major findings that are particularly relevant here (Halpern, 2018): first, the shift away from car use was not limited to policy substance – what do cities do and how is it framed – but was also grounded in changed policy procedures – how cities achieve such a shift in terms of administrative arrangements, coordination mechanisms and selecting a wider range of policy tools; second, and in addition to within-policy changes, it also accounted for rapidly evolving forms of urban governance by highlighting the ability of urban governments to shape transport priorities and policy processes.

In its conclusion, the CREATE project argued that if cities in Europe were to go beyond sustainable mobility and significantly reduce car use and traffic in support of their low-carbon emission strategies while at the same time coping with increased mobility demands, an ambitious place-based policy perspective would be required. This included developing sustainable modes of transport, promoting alternative land-use patterns, encouraging the development of new road space functions and going beyond transport objectives in order to integrate a wider range of urban policy objectives.

Among other success factors contributing to less car-dependent cities, road space re-allocation is singled-out as a far-reaching measure.

Table 1: A changed perspective on transport in cities

Policy perspective	Car-oriented city	Triggers	Sustainable mobility city	Triggers	City of places
Transport policy measures	Road building, car parking	Congestion, safety →	Public transport, cycle networks	Pollution, CO2 emissions, public health →	Public realm, street activities, traffic restraint
Land use / urban planning	Lower density, decentralization	Accessibility →	Polycentrism, densification strategies	Demographics, high quality city places, amenities →	ToD / mixed use developments
Road space function	Traffic movement	Connectivity, interoperability, competitiveness →	Mixed traffic movements	New technologies, mobility services and users →	Traffic movements and place
Urban governance	Weak - Technical / Transport	Social mobilizations, oil crisis, public service reforms →	(Sustainable) mobility, increased interdependency	Experimentations, incremental modernization →	Stronger – Multi-level, -actors, -dimensional

Source: adapted by C. Halpern from the CREATE project's summary, Jones et al., 2018, p.8-19.

Building on these findings, the MORE project examines how road space re-allocation might indeed contribute to such a shift towards a comprehensive, placed-based perspective on urban transport. In complement to the work done at project level on urban design guidelines, technologies, and users' demands, this report focuses on the role of institutional, organizational and political factors in shaping this process that is, the role of urban governance and policies.

Considering a large diversity of pressures and challenges, this report examines how urban governments design and implement alternative approaches to the management of their road networks.

In the next paragraphs, we begin with a literature review by drawing successively on transport, policy and urban governance studies. We then introduce our main argument, hypothesis and analytical framework.

2.2 Insights from the transport studies literature

The MORE project assumes that the dynamic allocation of space offers new opportunities for public authorities to face increasing pressure on urban road networks across Europe, especially on TEN urban feeder routes. The politics of allocating space for multiple uses on urban road networks, and the challenges it raises from a public policy and a governance perspective, have not often been studied in a comprehensive way in the social sciences literature.

Several insights can be gained from the transport studies literature on the technical and dimensions of road space allocation, as well as the role of regulation in achieving road space.

A large share of the transport studies literature focuses on technical dimensions, such as prioritizing specific modes, such as bus transport (Black et al., 1991), the added value of different modelling systems for optimal road space allocation (Gonzales et al., 2013) or for different users such as pedestrians or cyclists (Currie et al., 2006). Urban geography and sociology have focused on the socio-political dimensions of road space allocation, examining the challenges raised by the development of sustainable modes, in particular cycling, and over the recent period, of private shared micro mobility. In this perspective focusing on behaviours and sociospatial justice, road space allocation as an opportunity to explore issues of equity in transport (Di Ciommo, Shiftan 2016), and focused on accessibility as a human capability (Pereira et al., 2015; see also Kaufman et al., 2002).

Existing literature on regulation and transport policy change shows that it is challenging to effectively shape changes in travel behavior, the use of road space, and transition to new transport technologies. Transport policy typically relies on ‘predict and provide’ (Goulden et al., 2014) approaches that reinforces existing travel behaviors and mode shares, with limited possibilities to conceive of, or pro-actively shape, a transition in the way that streets are used (Marsden & Docherty, 2013). Given this tendency, achieving change in the allocation of urban road space requires a combination of factors: changes in technical knowledge, design approaches and policy objectives, appropriate institutional structures that have authority over the use and management of road space, and financial resources for investment into physical infrastructures. Dudley (2013) emphasizes the importance of ‘policy windows’ as opportunities to introduce new transport policies, bounded by political cycles and public acceptance of the proposed policy changes.

Changes in the use of road space are also profoundly influenced by the introduction of new transport technologies, and currently, many cities are adopting smart mobility strategies that foresee a role for emerging technologies in private transport, rapid transit and freight. While much of this policy is not yet implemented, preliminary studies emphasize that the successful introduction of new technologies requires complementary institutional arrangements and governance networks, alongside legislative, pricing and taxation measures to regulate their use (Docherty et al., 2018). Supranational organizations, such as the European Union (EU) or World Bank, can influence urban transport investments through the provision of expertise in design and planning, or alternatively, conditionality on financing provided for new projects. A review of the EU’s influence on urban transport across member states show that they

successfully shifted urban mobility onto political agendas, facilitating knowledge transfers and policy research, however across the long term the policies lacked dedicated funding sources and institutional resources (Halpern, 2014).

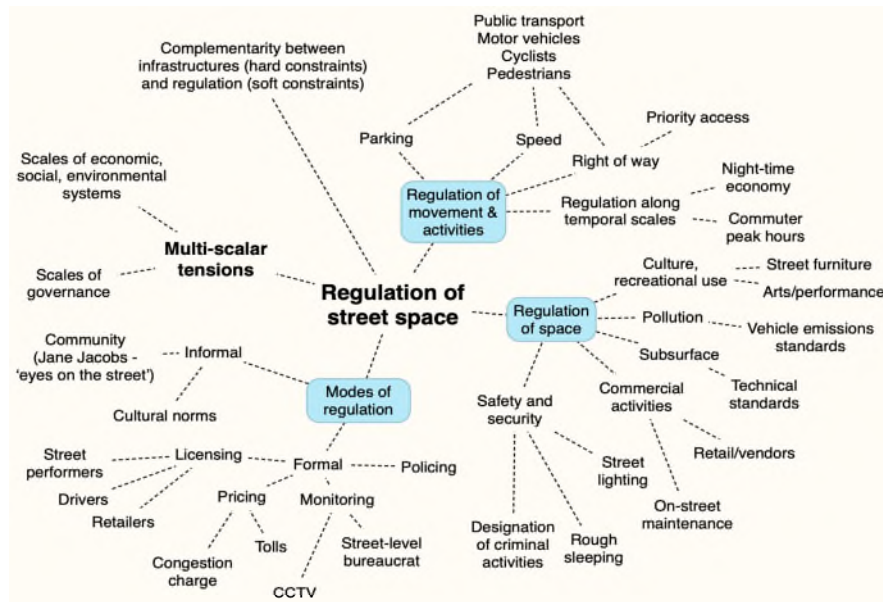
Studies of public space emerging from socio-legal studies and geography elaborate on the ways that the legal status of public and private property, and their owners, are particularly relevant to understand the extent to which road space can be regulated. Publicly-owned spaces are regulated to meet the perceived ‘public good’. In different contexts, this objective is used to evaluate the necessity and acceptability of motor vehicle parking, street trees, food vendors, buskers and rough sleepers (Blomley, 2011, 2014). Private property affords local resident populations the right to oppose street activities that create unacceptable disruption from noise, obstruction of the street as a public right-of-way, or environmental pollution (Valverde, 2012). Reconfiguration of local governance can also influence the regulation of road space, such as the designation of Business Improvement Districts that create hybrid public-private governance arrangements for certain spaces. The subsurface of city streets are not usually governed and enforced by legal instruments, but rather, technical standards that determine what can be built and the required physical properties of subsurface infrastructures.

Additional insights are to be gained from the work done on transport policy change and the various factors shaping that process. This multidisciplinary research has mainly used the notion of regulation. More precisely, it examines the form its takes (formal or informal), its status (public, market or community-based), as well as the everyday practices of enforcing regulation, within which individual actors have discretion, and may improvise in their enforcement. Such a focus on regulation helps mapping out the wide range of objectives of regulation, relating to road space itself, or specific movements or activities, as illustrated in Figure 3 below. It also differentiates between modes of regulation, which range from formalized licensing, policing and monitoring, to informal (but equally powerful) regulation of activities through cultural norms and community actors (Jacobs, 1961). Multi-scalar tensions between the different jurisdictions of governing authorities, and the different scales of economic, social and environmental systems are typical. There are also important complementarities between infrastructures (‘hard constraints’) and regulation (‘soft constraints’), as they shape behavior and travel patterns.

This literature is, however, of little help when it comes to examining the specific role of institutional, organizational and political factors in shaping the re-allocating space within a given urban road network. Public policy is mainly conceived as an external variable that shapes – enables, constraints – behaviors and optimization strategies. While acknowledging the insights to be learnt from this multidisciplinary literature, it fails to provide some understanding for two issues or political legitimacy that are critical to the MORE project: first the extent to which urban authorities have emerged as a legitimate authority for governing road space allocation, and second, whether or not they have sufficient policy capacities to effectively shape such processes vis-à-vis other levels of government as well as other forms of governance (market- or community-led).

In other words, the institutional, organizational and political road space allocation raises specific issues for urban policy-making and governance.

Figure 3: Regulation of road space as mapped through the transport literature



Source: elaborated by J. McArthur

2.3 Analytical framework: the added value of urban governance and policy studies

In order to make sense of these factors and how they might shape road space allocation across the five MORE cities, the report draws on the urban governance and the public policy literature.

Public policy is defined as “an action carried out by a public authority (alone or jointly) with the aim of dealing with a situation that is perceived as problematic”. It is also conceived as “a specific form of collective action that participates to the creation of a social and a political order, the steering of society, the allocation of resources, the integration of social groups and the resolution of conflicts” (Lascoumes and Le Galès, 2011).

2.3.1 The emergence of road space allocation as a multidimensional policy coordination issue

In the context of growing pressure on urban road networks, road space allocation emerges as a multidimensional policy coordination issue, with a wider range of users, interest groups, organizations, authorities having an interest in shaping the design and the implementation of dedicated policies and measures. Interventions to re-allocate road space take a broad variety of forms, ranging from bus priority lanes and separated cycle lanes, to the pedestrianization of streets or regulation through congestion charging or tolls. They span across measures that reconfigure or retrofit physical infrastructures, as well as measures that regulate specific vehicles or activities, sometimes with associated time restrictions.

The public policy literature offers the following insights in order to make sense of ongoing policy developments.

➤ A technical solution in search of a policy problem

Road space allocation appears to be primarily conceived as a technical solution rather than a policy problem (Zittoun, 2014). It is nowhere to be found in any city administration's organigram or political portfolios, as opposed to recent publications in the applied literature, and it is difficult to translate into most languages used in the MORE project. This suggests that public authorities, social groups and economic actors across levels are less likely to prioritize it in their attempts to shape policy processes, as opposed to congestion, air quality or social justice, for example, that are perceived as problematic across EU countries. Moreover, its emergence as a policy issue in its own right might require some joint efforts to reach a common understanding of what road space re-allocation means in terms of ideas, goals and frames of reference in order to avoid conflicts and resistances.

Indeed, we expect issue framing and ownership within government and beyond to impact the ability to design and implement effective road space re-allocation strategies (Rochefort, Cobb, 1995). The motivations for, and different forms of opposition to planned transport improvements reveal conflicting perceptions of how and to who's benefit urban road space should be re-allocated. In other words, who takes leadership over the framing of road space re-allocation in a given context that is, over information gathering and processing, shaping the distribution of resources (funding, human resources, space, etc.). As a result, the coexistence of multiple interpretations of a given issue is likely to constitute a source for major socio-political conflicts and inter-organizational and -institutional competition.

➤ An archetypical problem of policy coordination

Any attempts to address issues related to road space re-allocation are likely to intervene in an already crowded policy space, thus justifying the choice made in this study to characterize it as an archetypical problem of policy coordination. More specifically, it counts amongst those policy issues that "*helps emphasizing the interconnections existing within the public sector as it acts to make policy*" (Peters, 2018, 32). It involves a large number of actors within governments across levels and in the political system. In other words, space is already allocated through formal and informal rules, and any attempt by urban authorities to challenge these rules is likely to raise contestations and resistances.

Differentiating between different dimensions of policy coordination highlights the fragmentation of policy resources and the distribution of responsibilities within government, across levels of government and between different stages of the policy process (Bouckaerts et al., 2015). Road space re-allocation is also characterized by a high level of political complexity, each of these actors and interests attempting to use (the lack of) coordination as an opportunity to promote its own political agenda or enhance its own success (Ray, 2019). This also links with the work done on barriers to policy coordination within government, either between bureaucracies and agencies, or between politicians, managers and technicians, as highlighted by Peters (2015).

Dimensions of policy coordination (adapted from Bouckaert et al., 2015):

- Positive versus negative policy coordination that is, actively seeking to ensure policy coherence through substantial or procedural changes, as opposed to a “peace treaty” not to harm one another;
- Within policy process and across various policy stages (design, implementation, process management);
- Administrative versus political activities that is, avoid the competition between different sources of legitimacy in order to ensure consistency over time, overcome the tendency to work in silos and transform established work patterns and practices.

➤ Public authorities in interaction with a wider range of actors

Public authorities work in close relationship with the wider society⁸. Their work throughout the policy process constantly interacts with economic actors, civil society organizations, experts, etc. From this perspective, road space re-allocation is expected to challenge existing patterns of relationships within the transport sector by fostering a reshuffling of policy priorities, resources and procedures. This is particularly true in a context in which more or less centralized governments leading most actions within well-defined policy areas are increasingly challenged. Governing resources are less likely to be concentrated at one level of government or within the public sector (see below). In addition, and in a context in which alternative forms of regulation (Kooiman 1993) – market-based through prices, competition and bargain or network-based through trust, voluntary collaborative actions and mutual awareness – increasingly challenge classic forms of political regulation, hierarchy and bureaucratic control are less likely to shape both the design and the outcomes of policy processes. Lastly, the process of re-allocating road space is not solely the domain of public policy, as it also involves technical activities such as planning and engineering design. However, and as a specific type of political regulation (Lowi 1964), policy is expected to have a central role in governing road space re-allocation.

➤ Road space re-allocation as a process rather than an output

From an analytical perspective, public policy suggests focusing on processes, dynamics, as much as on outputs. Road space re-allocation stands at the crossroads between different rationales and is likely to be shaped by standardized techniques and procedures as well as context-dependent variables. In other words, we don't expect to find a uniform understanding of what a road space re-allocation policy ought to be, which would stem from the rational selection of among several well-defined alternatives, but a variety of understandings resulting from a bargain between diverse interests and ideas. In addition, we expect this to occur throughout the policy process, including at the implementation stage. In those contexts where local authorities at the intra-municipal level – boroughs, parishes, arrondissements, etc. – are expected to play a pivotal role at implementation stage, this is likely to foster competing understandings of the issue at stake as well as different ways to cope with diverse and often contradictory policy objectives and social demands. In short, the allocation of space on the urban road network also raises specific issues of leadership over the design and implementation of dedicated strategies.

⁸ This is not a new phenomenon, see the classic work by Hecl and Wildavsky (1974)

Six barriers to coordination (adapted from Peters, 2015):

1. Lack of interest in coordination
2. Information as power, or strong incentives for maintaining secrecy
3. Partisan politics, both within government and beyond
4. Beliefs, ideologies, professional values of what constitutes a “good policy” in one’s own field
5. Time
6. Accountability

2.3.2 Road space re-allocation in the context of urban governance

In addition to assuming that the dynamic allocation of space fosters the emergence of road space allocation as a policy issue in its own right, this study assumes that urban governments are likely to play a growing role in the re-allocation of road space by encouraging and shaping the development of new urban governance arrangements and capabilities. In order to explore this second assumption, we draw on the urban governance literature.

➤ When are cities able to act as a collective political actor ?

European cities have long been playing a critical role in shaping public policies and governance (Le Galès 2003), and over the recent period, this also expanded to policy domains that were primarily organized at the national or the regional levels, such as transport. While some cities have been able to emerge as a collective political actor, others have failed to do so due to both vertical and horizontal fragmentation. Urban policies constitute one of the ways through which such arrangements between public, state and civil society actors are made material. They constitute a solution to emerging issues as well as an opportunity for urban authorities to differentiate themselves from other levels of government by mobilizing resources both internally and externally (Beal, Pinson, 2013).

Urban policies can be defined as “policies that cover a wide range of actors from different sectors of society, with various statutes and acting at multiple levels. They address emerging issues that are transversal to bureaucracies and sectors, as well as to different levels of government..... As it is the case of any other mode of governance in the making, urban policies result from a pragmatic, step-by-step approach that is marked by conflicts and controversies, a constant back and forth between timid experiments, strong interventionism and progressive adaptation” (Le Galès 2011).

Urban policies are part of the world of public policies and can therefore be analysed through the same analytic tools. They differ from local policies, insofar as they are multilevel (Marshall 2005). They cannot be considered as a classic redistribution mechanism that is, a mere transmission belt from the national/European towards the local (Pflieger, 2012). They cover a wide range of actors and are conducive to the reframing of one-dimensional issues into a multidimensional perspective. They imply some form of political regulation, to the extent that urban policies rely upon specific representations of the issue at stake and pursue territorially defined goals (Le Galès, 1998). This also explains why urban policies are

sometimes criticized in view of their strong symbolic dimension and incomplete institutionalization (Cochrane, 2007, 1).

➤ **Assessing urban government's ability to structure policy processes**

Yet not all urban authorities face equal opportunities in this process and not all cities have succeeded in their attempts to effectively structure collective action. We expect to observe similar findings when examining urban road space re-allocation strategies. More precisely, and drawing from previous work on urban transport governance and policies (Halpern 2016; Halpern, Le Galès 2018), the urban governance literature suggests that two different dynamics are taking place simultaneously. On the one hand road space allocation being an emerging policy issue, it offers some opportunities for urban governments to shape its framing and operationalization; but on the other hand, policies aimed at re-allocating road space are likely to intervene in an already crowded policy space, this requires access to strategic governing resources and developing strong political capabilities.

The role of urban governments relates to the policy resources they may rely upon. Four types of resources are considered critical in order to understand the ability of a given government to shape policy priorities and strengthen its capacity to either effect changes in their environment or detect them (Hood 1986; Howlett 2009). The work done as part of the CREATE project confirmed the relevance of this typology in order to account for the growing role of urban governments in shaping policy processes in the field of transport, even in those countries where most policy resources were concentrated at national level or among a small number of highly specialized actors. It also helped understand the paradox often highlighted in the field of urban transport of multiple initiatives and conflicting political leadership on the one hand, and on the other hand the making of a differentiated mode of governance, with massive and transformative outcomes (Halpern, Le Galès, 2018). We thus propose to draw on it in order to empirically assess the ability of urban governments across the five MORE cities to effectively structure the allocation of road space and the resolution of conflicts it may face.

Four types of policy resources (Hood 1986):

- Nodality or “the property information-interconnectedness, of being at the centre of things - the hub of a wheel or a junction of information channels” (Hood 1986);
- Authority or the possession of formal power to forbid, command, license, certificate, guarantee, sanction etc.;
- Treasury that is the possession of a stock of assets;
- Organization or the direct possession of a stock of manpower, buildings and equipment. This is what gives government the ability to act, subject to a limit of capacity.

Together, resource mobilization and capabilities account for the accumulation of policy resources and political legitimacy which decidedly differentiate European cities from their counterparts worldwide. Nevertheless, we don't expect urban governments of being able to enjoy full control of these four types or resources, nor an ability to mobilize them in support of designing and implementing road space allocation policies.

2.4 Main argument and hypothesis for this report

This study argues that focusing on road space re-allocation, and the ways that it is framed, instrumented and implemented, helps understand how cities across Europe develop strategic, alternative uses of their road network. This can promote a reshuffling of priorities and accommodate new pressures and challenges – changed political outlook, technological advances, financial constraints, conflicting social demands, etc.

Two hypotheses will be examined in this report:

- 1) the dynamic allocation of space fosters the emergence of road space allocation as an urban policy issue in its own right, creating opportunities to challenge existing arrangements;
- 2) urban governments are likely to play a growing role in the re-allocation of road space by encouraging and shaping the development of new urban governance arrangements and capabilities.

More precisely, it seeks to understand why and how local (urban, metropolitan) governments chose to design and implement their own road-space allocation strategies, what are the resources (financial, political, etc.) they mobilise to drive changes in the ways that roads are used. It also examines the concrete mechanisms – whether pre-existing or custom made - they use (e.g., coordination, consultation, public debates, etc.) in order to achieve these stated goals as well as the challenges they face in this process (e.g., institutional competition with other levels of government, mobilization and resistances from residents, road users, infrastructure owners and developers, etc.). Lastly, it seeks to unpack evolving power relations between a growing diversity of actors and their respective capacity to promote or resist changes in the ways that road space is used.

Beyond that, this study contributes to the conceptualization, at project level, of urban roads as an ecosystem (Jones et al., 2019) by combining three different perspectives:

- Who – users, interest groups, organizations, authorities, etc. – has a claim on the allocation of road space across different urban contexts;
- Modes of regulation - evolving relationships between levels of governments, between technical expertise and political priorities, and between public authorities, market actors and civil society demands;
- Forms of urban governance – how these demands are made material through policy objectives, procedures, resources and practices, and the extent to which urban governments are able to steer processes of road space re-allocation by reshuffling priorities attached to urban road networks

As part of this report, we mainly focus on public authorities and the role of institutional and organizational factors, whereas the role of socio-political demands and conflicts will be addressed at a later stage of the research.

2.5 Analytical framework

Considering insights from transport, policy and urban governance studies literatures, the three following issues will be examined in order to make sense of the five MORE cities' ability to shape road-space re-allocation strategies.

2.5.1 Mobilizing resources across levels of government (vertical coordination).

In a context of multilevel governance, a large range of public authorities compete for leadership over the allocation of this strategic resource. Albeit with some differences in rhythm and scope, all European countries have introduced decentralization reforms from the 1970s onwards which have contributed to reorganizing the distribution of responsibilities and resources between different levels of government (Loughlin 2008). Forms of local political leadership have been strengthened, even in the cases where mayors are not elected.

Professional networks of expertise are in parts organized at the urban level, and cities have made significant investments in organizational resources in order to design policies of their own. The development of EU- and worldwide networks of cities and mayors encourages the diffusion and transfer of knowledge and policy solutions (Payre, 2010; Domorenok, 2018). Evolving central-local relations in Europe also explain the strong political dimension of the European cities model, to the extent that the representation of the city and the legitimacy of political elites in sustaining and reinventing forms of political representation and participation is a distinctive feature of European cities (Reynaert et al., 2009; Sellers et al., 2013).

Nevertheless, European cities are structured and organized within European States, which in part protect and support them through the direct injection of resources and investments (Le Galès, Lorrain, 2003). Whether or not the 2008 crisis has contributed to re-nationalizing critical governing resources or further dismantling them is still a hotly debated topic (Pinson, Sala Pala 2017), which requires additional empirical evidence. Moreover, through its regulations, policies and funding mechanisms, the European Union also contributes to shaping developments in transport, thus contributing to both enable and constrain the ability of domestic authorities to introduce road space allocation strategies. This is particularly true of TEN urban feeder routes, which are located at the interface between high-speed European transport networks – and as such often owned and managed by national organizations – and urban networks – which ownership and management structure varies across EU countries. Together, these processes have contributed to the rescaling of political authority, and raise specific issues of vertical coordination from the local level – parishes, boroughs, etc. – up to the European level.

This study examines how urban governments mobilise resources across levels in order to shape road space re-allocation in capital (Budapest, Lisbon, London) and secondary (Constanta, Malmö) cities. These cities are located in five unitary states that have undergone significant decentralization reforms over the past three decades reshaping the distribution of resources across levels of government.

2.5.2 Mobilizing resources citywide (horizontal coordination)

The need for increased coordination also results from the proliferation, at each level of government, of actors with an interest in the future of roads. In the context of major concerns for the negative externalities related to transport and in the hope of securing important shares of a booming market, the transport industry is saturated with new technologies, services, business models and solutions claiming to contribute to a “cleaner, better transport”. Over the past few years, the promises held by the arrival of new, less polluting vehicles in conjunction with the dismantling of exiting fleets have sparked new interest and resistances from a wide range of social and economic interests, and in public opinion more generally. This is particularly the case in large European cities, where such contradictory demands have exacerbated the need for renewing forms of political debate and prioritizing between users’ groups, needs and claims over road space. Together, this raises specific issues of horizontal coordination at each level of government within government and beyond, through mechanisms such as integrated policy-making, the merging of departments and agencies, or reaching out to organizations outside government through strategic planning and stakeholders’ consultation (Cejudo, Michel, 2017). Following several decades of public service reforms that favoured the development of single, highly specialized and self-centred authorities, the ability to frame and operationalize transversal tasks such as road space allocation, which cuts across transport, environment, urban planning and health issues, constitutes a challenge from an organizational point of view.

This study examines how urban governments mobilise resources horizontally and across a large number of organizations in order to shape road space re-allocation beyond the local or the municipal scale.

2.5.3 Assessing urban governments’ capabilities to steer road space re-allocation

In view of the above-mentioned resource dispersion, we don’t anticipate that urban governments can automatically mobilize these four types of resources to design and implement road space allocation policies. Rather, insights from previous work done on urban governance and transport policy developments suggests that such resource mobilization capacity depends on the salience of a given policy issue and its level of politicization within a given urban society. Being able to compete for financial resources at the regional, national or European levels of government or to raise interest from the private sector to explore a new technology or experiment with new solutions constitutes a first major incentive. Social demands – either resisting or promoting a new approach to existing principles of road space allocation – might constitute a second strong incentive, especially when linked together with influence-seeking strategies directly targeting decision-makers or through the local media for example. Contestation often arises over attempts to re-allocate urban road space away from private vehicles to sustainable transport modes or other activities (Kebrowski et al., 2016). Political elites could also draw on such opportunities in order to differentiate themselves on the local political agenda and reach out to additional constituencies by resisting or promoting the re-allocation of space on the urban road network. Across Europe, contestation of schemes to re-allocate space to public transport, and the elevation of transport projects to electoral agendas, can undermine transitions to sustainable mobility.

In addition to the ability to strategically use road space allocation in order to shape urban policy processes, we also expect urban governments to enjoy differentiated political capacity to implement their decisions. Indeed, authority does not solely rely upon hierarchical authority and power, but also refers to persuasion, bargaining and incentivizing. More precisely, forms of policy instrumentation that is, the choice and selection of policy instruments (Lascoumes, Le Galès, 2007), and the development of alternative forms of policy-making and -implementation constitutes a second source of divide between urban governments in their ability to govern urban issues, in this case, the allocation of space on urban road networks.

This study examines how political choices and decisions about urban road space re-allocation are made and enforced.

2.6 Summary

Drawing upon the literature review and analytical framework for understanding road space allocation across the five MORE cities, this report provides answers to the following questions:

- What does road space allocation mean across different contexts? What specific policy agendas and issues does it refer to and to what extent does this shape issue ownership, policy content and political capabilities?
- Which public authorities contribute to the allocation of road space?
- How are responsibilities distributed among them? Are boundaries and tasks clearly defined, both from a formal and a practical perspective?
- What are the most critical resources needed by urban governments in order to design and implement road space allocation strategies, and where are these resources located?
- What are the main sources of control and power for enforcing these rules, sanctioning deviations?
- How likely is road space allocation to be taken up as an issue for institutional, organizational or political competition?

3 Research design, methodology and data collection

The analysis developed in this report is based upon original research conducted in the five MORE cities. The research design seeks to achieve the three following goals:

- To understand when, why, how road space allocation emerged as an urban public policy issue, as well as to identify the dominant understanding or framing of road space allocation in each specific context
- To map out the current state of institutional and organizational factors in each respective context,
- To examine the various mechanisms, solutions, etc. introduced so far in order to overcome the challenges attached to road space allocation, as well as remaining barriers.

The research design, methodology and data collection strategy for this report seek to identify and account for similarities and major differences between cities in the various ways through which pressures for re-allocating road space are understood, prioritized, addressed and translated into effective policy strategies and planning practices.

The report draws on qualitative methods and data have been gathered across cities according to the principle of triangulation between different types of sources. A first task was to establish a common data collection strategy and check for data availability and accessibility. Second, we developed a common methodology for analyzing it.

In the following paragraphs, we introduce successively the research design and methodology, the data collection strategy, and the methods we used in order to analyze this dataset.

3.1 Considering diverse urban contexts

This study does not develop a comparative analysis of the five MORE cities. While it is assumed that all five cities face similar challenges affecting the planning, design, operation and management of road space allocation, this report argues that their impact on policy design and implementation is mediated by governance arrangements and policy processes.

Yet in its efforts to understand how similar pressures for road space re-allocation are addressed across different urban contexts, this study offers unprecedented opportunity to highlight differences and similarities across cities, and to generate cross-city findings that may be relevant for other cities in Europe. More precisely, we seek to identify those factors that might induce urban governments to develop road space allocation strategies and challenge pre-existing formal and informal arrangements. This will help understand the differentiated role of institutional and organizational factors on the one hand and of political factors policies on the other hand, in shaping political capabilities to act. All five cities are located in European member states⁹. These unitary states have introduced decentralization reforms aimed at transferring some responsibilities and resources to subnational levels of government. When assessing levels of autonomy vis-à-vis central governments, we expect some differences between a group of three capital cities – London, Budapest and Lisbon – as opposed to two secondary cities – Malmö and Constanta. We also expect some differences between the two cities – London and Budapest – in which an integrated transport authority is formally able to coordinate such policy developments as opposed to the three cities – Constanta, Lisbon and Malmö – in which coordination results from other dynamics, including party politics. Lastly, we expect some differences in state-society relationships – how and by which types of organizations social interests are organized and represented – between cities located in longstanding parliamentary democracies (London, Malmö) and those states that joined the EU following the restoration of democracy (Budapest, Constanta, Lisbon).

Drawing on previous work on comparative transport policy processes (Halpern 2018), the research design, methodology and data collection strategy for this report seek to acknowledge

⁹ This research was done before the latest Brexit deadline (October 31, 2019).

both some similarities between cities as well as some major differences in the various ways through which these pressures are understood, prioritized, addressed and translated into effective policy strategies and planning practices. More precisely, the aim was to draw on feedback from cities in order to identify key policy documents, legislations and stakeholders involved in the design, implementation and management of road space allocation strategies¹⁰.

3.2 Research design and methodology

This report used qualitative methods in order to collect and analyze original data from the five MORE cities and analyze it.

In this report, we used qualitative analysis. Data have been gathered according to the principle of triangulation between secondary sources, documentary sources, semi-structured face-to-face/telephone/group interviews and on-site primary source investigation (mapping exercises and observations).

We started by gathering information from city partners through questionnaires and interviews in order to identify relevant policy documents, stakeholders, and issues. Following this exploratory phase, secondary and documentary sources were systematically collected. Interviews (telephone, face-to-face, group) were conducted with a variety of decision- and policy-makers - politicians, policy-makers, experts, technicians - participating in the design, operation and implementation of road space allocation strategies. In this report, as we primarily sought to understand the distribution of responsibilities between institutions and organizations, we mainly focused on vertical coordination issues, between levels of government, as well as horizontal coordination issues between public authorities and agencies. In addition, we did mapping exercises to stimulate discussion and generate data on the barriers to coordination.

Lastly, we held a half-a-day workshop in Paris in May 2019 where we presented some preliminary findings and asked cities to present their own narrative and vision for road space allocation.

Data were primarily collected by the WP2 team at Sciences Po and UCL with the help of partners involved in Task 2.1 (see Table below). This data fed into a series of city portraits (see appendices) that provide the background analysis for the cross-city findings presented in this report.

¹⁰ This report is complementary to Deliverable 1.2, led by TUD. This report includes an up-to-date analysis of processes for management, design and construction; as well as processes for developing guides (who initiates, validates, what status that is, more or less binding etc.). It is also complementary to Deliverable 2.2, led by Buchanan computing, which includes all aspects related to regulatory issues, including enforcement.

Data management and ethics

The data collected as part of this study, including answers to WP2 section in the joint questionnaire with WP1 will remain anonymous. Workshops and interviews were held under the Chatham House rule and participants were promised confidentiality. Discussions were audio-recorded for the purpose of data analysis only and Sciences Po will be the sole guardian of the recording.

This will be kept securely, as will any transcripts taken or any additional material provided by interviewees. In most cases, we used this material as background information and sought to find confirmation elsewhere. These procedures were mentioned to all participants and interviewees when contacting them. They were reminded of them on the day of the workshop / interview. Participants were asked to sign an informed consent form on the day of the workshop / interview ¹¹.

Table 2a: Data collection and analysis: overview of partners' and contributors' role

Partners involved	Data collection: main contact questionnaires / workshops	Data analysis
Sciences Po	Charlotte Halpern, Juliette Thijs, Emma Dierse, Rosalie Ray	Charlotte Halpern, Juliette Thijs
UCL	Jenny McArthur, Peter Jones	Jenny McArthur
Constanta	George Lupascu	
BKK	Tamás Halmos, Andor Háznagy	
TfL	Tom Becker, Roisin Naughton	
CML	Sandra Somsen	
Malmö	Maria Brodde Makri, Andreas Nordin, Christian Resebo	
EIP	Lucia Cristea, Doina Dumitrescu	Doina Dumitrescu
ECF	Aleksander Buczynski	
TUD	Regine Gericke, Caroline Koszowski, Bettina Schroeter	
Vectos	Paul Curtis	

3.3 City questionnaires

To begin with, city partners were asked to provide information about those stakeholders relevant for understanding the current state of road space allocation across cities. This was done through the circulation of joint questionnaires with other WP leaders:

- Stakeholders' mapping, circulated by Vectos (WP5) on behalf of WP1/2/3/4/5 in November and December 2018
- Urban street design, Regulation and Governance, circulated by TUD (WP1) on behalf of WP1/2 in October-November 2018

This helped identify main stakeholders, issues and policy documents across cities.

¹¹ See the requirements specified in Section 5.1 (Ethics) of the MORE project's Consortium agreement and Data Management Plan.

Identifying main stakeholders, issues and policy documents across cities through questionnaires and follow-up interviews with partners.

3.3.1 MORE Stakeholder mapping questionnaire

As several MORE Work Packages required cities to identify different types of stakeholders, a joint questionnaire was developed by Vectos as part of WP5 (Task 5.1.2). It also considered each WP specific needs.

In the case of WP2, this mainly served an exploratory purpose for identifying two different types of stakeholders that are particularly relevant for examining:

- The distribution of institutional, organizational and political responsibilities;
- The contestation of road space allocation.

More precisely, this questionnaire aimed at identifying all relevant stakeholders that is, those with an interest in road space allocation, including both stakeholders with high level leverage - and relevant for the understanding of the formal political and planning processes - as well as drawing out stakeholders of low and medium power – in order to account for the contestation that emerges in everyday use, policing/implementation of regulations for road space.

Moreover, in the case of WP2, this stakeholder mapping questionnaire was done city-wide and not restricted to a specific corridor or project. Lastly, we sought to be as objective as possible, bearing in mind that road space allocation in terms of its design, management, operation and contestation might involve some significant differences across cities. For example, we preferred phrasing this in terms of “new approaches to road/street design” instead of “progress” and “success”. In a similar vein, city partners were also asked, if possible, to qualify how much power or leverage they have - either low/medium/high or on a scale of 1-5. For example, which stakeholders have high level leverage due to their political/regulatory powers that can speed up or limit new approaches to street design, new processes, overall strategy, behavior change etc.?

Drawing on the urban and policy studies literature, a first extensive list was established, distinguishing between the following categories of stakeholders:

- 1) Government/ Authorities/ Public companies
 - o across levels: International, European, national, regional, metropolitan, local, etc.) e.g., policy makers, public authorities, infrastructure owners, transport companies, regulatory agencies, police/traffic enforcement, public consultation bodies etc.
- 2) Private actors and businesses
 - o e.g., transport service providers, utilities with subsurface assets, ICT companies, transport and delivery services providers, chamber of commerce, local businesses, property developers, Business Improvement Districts, major land owners
- 3) Communities/ Local Neighbourhoods / Non Governmental Organizations
 - o e.g., *residents' groups, housing owners, environmental organizations*
- 4) Others
 - o *organizations representing different transport users (e.g., taxis, public transport, cyclists, etc.), lobby groups, professional organizations (incl. architects, planners, engineers), disability groups, homelessness associations, universities and experts*

A detailed list of findings for each city is provided in the appendices. Please note that some differences are to be found between cities, depending on the forms of governance arrangements and transport policy processes.

3.3.2 Joint WP1/2 Questionnaire on Urban street design, Regulation and Governance

In parallel to identifying key stakeholders relevant for understanding the allocation of road space, city partners were asked to fill-in a questionnaire on Urban street design, Regulation and Governance. This questionnaire was prepared jointly with TUD (Urban street design), Buchanan computing (Regulation) and Sciences Po (Governance). Different types of partners – cities, road user groups, technical partners – were asked to provide information, regulation and specific examples if relevant. In the case of city partners, if no information or regulation existed at the local level, material from the regional / national level was required.

This questionnaire included 7 sections: sections 1-5 informed the work done as part of T1.1 (TUD), section 6 informed the work done as part of T2.2 (Buchanan Computing) and section 7 informed the work done as part of T2.1 and T2.3 (Sciences Po).

It provided relevant information and data for the completion of this report in the three following ways:

1. Identifying the most important policy documents, regulations, strategic planning documents, etc. regulating road space allocation across cities. When possible, an e-copy of the original document was provided, together with an executive summary in English.
2. Two questions addressed more specifically those issues relevant for the work led by Sciences Po¹². They were voluntarily formulated in a general way and served an exploratory purpose for Tasks 2.1 and 2.3.
 - Section 7.1: Interfaces and barriers to improve the design and operation of urban roads / streets.
Cities were asked to fill in information about the city's role in the design and operation of urban roads/streets, and the extent to which its action might be hindered by endogenous or exogenous barriers and interfaces. Input about the following was expected:
 - the resources (or lack of resources) in terms of funding, knowledge, authority, etc.
 - the overlap of responsibilities with other levels of government and/or transport companies,
 - the mechanisms through which coordination / cooperation between transport modes is ensured
 - Section 7.2: Conflicts and controversies in road/street design
Cities were asked to provide some city-wide information about typical conflicts/ controversies about urban road/streets and if relevant, about the MORE-corridor in particular. Input about the following was expected:
 - Institutional competition between city vs. regional/national administrations,
 - Opposition from business/home owners, between different road users' groups (bus drivers, cyclists, pedestrians, etc.)

¹² See Deliverable 1.2. Those questions are part of Section 7 in this questionnaire.

3. Follow-up interviews were done – face-to-face or over the phone – with MORE city partners in each city in order to complete and expand this information. This was particularly the case with all issues related to the politics of road space allocation (question 2). There again, we drew on semi-structured interviews, which allows addressing a specific set of questions and themes. It also ensures sufficient flexibility during the interview in order to adapt to the peculiarities of each local context. On a more trivial note, it helps adapting to the constraints of each interviewee (time, knowledge, etc.) and to the amount of background information already gathered by the interviewer. This provided a good opportunity for testing a generic interview guide for later stages of the research. On average, face-to-face interviews lasted for about one and a half hour.

Table 2b: Overview of answers to Section 7 on Governance

MORE city	Questionnaire	Follow-up interview (Questions 1 & 2)	
Budapest	√ 10/01/2019 (both questions)	Phone, 2 persons from BKK, 10/01/2019	C. Halpern, J. McArthur
Constanta	√ 19/12/2018 (none)	Face-to-Face, 1 person from Constanta Municipality, London, 27/11/2018	C. Halpern, J. McArthur (with TUD present)
Greater London	√ 21/12/2018 (question 1 only)	Face-to-Face, 5 persons from TfL, London, 26/11/2018	C. Halpern, J. McArthur (with TUD present)
Lisbon	√ 02/12/2018 (question 1 only)	Phone, 1 person from CML, 25/01/2019	C. Halpern, J. McArthur
Malmö	√ 30/11/2018 (question 2 only)	Phone, 09/01/2019	C. Halpern
MORE city	Questionnaire	Follow-up interview	
ECF	√	Phone, 3 persons from ECF, 22/01/2019	C. Halpern

Despite some differences between cities, we were able to gather considerable and valuable information through both questionnaires and through follow-up interviews. More precisely, these helped in order to identify relevant transport planning and policy documents, key stakeholders and context-specific issues.

Yet it also confirmed the high level of fragmentation of the different institutions and organizations shaping road space allocation in each city, as well as the fragmentation of responsibilities. In none of these cities did we find a case of one agency in charge of road space allocation. Moreover, the information gathered during this preliminary phase also showed that cities, and different stakeholders within those cities, had very different understanding of why and how to consider road space allocation as a policy issue in its own right. This was particularly the case between organizations at different levels of government, but also between different types of stakeholders - technicians, politicians and managers - across levels of government and policy domains - urban planning, transport, environmental protection etc.

Together, findings from this exploratory phase justified the need to co-organize city workshops instead. Gathering the largest possible number of relevant stakeholders and/or individuals as part of group interviews and exercises made sense for two reasons: first, as a relevant method for collecting missing data, and second, in order to support city partners' efforts to raise awareness about the MORE project.

3.4 Workshops: group interviews and mapping exercises

Following this exploratory phase, we asked city partners to help us co-organize workshops and site visits in each city. City workshops were designed in order to launch an informal group discussion with a small group of knowledgeable stakeholders and observers whose contribution is thought relevant for the understanding of institutional, organizational and political responsibilities in each city. A short briefing note was prepared in order to help organize it and ensure consistency across cities.

In the following paragraphs, we successively account for these workshops' objectives, the methodology we used, the organization and the content.

3.4.1 WP2 city workshops' objective

WP2 city workshops were meant as a creative way to gather substantial knowledge about institutional, organizational and political issues related to road space allocation in each city.

The objective was to go beyond an analysis of extreme fragmentation, and to understand how different organizations and institutions govern the design and implementation of road space allocation from a formal perspective and in practice. In spite of the above-mentioned level of fragmentation, decisions are being made, projects are design and implemented at small or large scale, some user groups have gained increased access to road space etc. This confirmed the need to reflect on how responsibilities are shared, which mechanisms account for the development of policy capacities as well as for remaining barriers and blind spots.

More specifically, workshops contributed to gather information in each city about the following:

- What are the institutional, political, organizational challenges? How to account for these challenges?
- What are the power relations between institutions/actors, do these arise from ownership of assets, control of budgets or authority in planning or implementation processes?
- Is there a need to develop new standards or guidelines?
- Is there sufficient know-how to address the challenges faced at the implementation stage?
- Do such strategies face resistance or opposition from specific social groups?

Following discussions with EIP, a question about future challenges was introduced in order to feed into the work done in Task 3.3.

More generally, City workshops drew on the information gathered through the exploratory phase of the research. It provided a good opportunity for the WP2 team to strengthen their understanding of the dynamics at play in the five cities and to generate some more robust hypotheses on a case-by-case basis. Insofar as they were organised within a short period of time, they also offered an opportunity to develop a first general cross-city overview.

These workshops took place between February and May 2019. It should also be noted that these workshops mainly addressed issues relevant for the analysis of institutional, organizational and governance issues (T2.1), whereas those related to social conflicts and streets as contested spaces (T2.3) will be addressed as part of a second series of workshops and site visits, during the Spring and Fall 2019.

WP2 City workshops as an opportunity to launch an informal group discussion with a group of knowledgeable stakeholders whose contribution is relevant for the understanding of institutional, organizational and political responsibilities in each city.

3.4.2 Workshop methodology

The methodology used for WP2 workshops is that of group interviews. This is a widely used research technique as an alternative to observation and face-to-face interviews. They bring together a small number of participants, between 6 and 10, as part of an informal group discussion. Following Frey and Fontana (1991, 183), it « *takes advantage of group dynamics to produce new and additional data. In addition to the respondent-interviewer relationship, the evolving relations among group members can be a stimulus to elaboration and expression* ». Group interviews can be organised in different ways (e.g., focus groups, pre-tests, etc.), according to the role and function they hold in a given research strategy (see also Tracy 2013)¹³. In this case, we drew on the previous work done by C. Halpern on comparative public policy processes and governance and J. McArthur on infrastructure governance and cross-sectoral coordination.

More precisely, the discussion is facilitated in a light manner in order to serve this exploratory purpose. Interview questions are somewhat structured, and a small number of purposive questions will be asked in order to guide the general debate and avoid overly general and trivial discussions. In each city, participants were asked to work in small groups for participatory mapping exercises to articulate the interactions and working relationships across different institutions, to be reflected on a paperboard.

A generic version of interview questions and guidelines for the mapping exercise is provided below.

Following the suggestion made by partners in both Constanta and Lisbon, 2 half-a-day workshops were organized in each city (see overview below). Moreover, the methodology was slightly adapted in order to consider city partners suggestions, progress made in the meantime through desk analysis and to prepare for Task 2.3. When organized in February and March 2019, they served an exploratory purpose; but when organized in May 2019, they helped confirm the work done as part of the desk analysis while serving an exploratory purpose for Task 2.3.

Together, these discussions and activities brought together a broad range of insights and perspectives.

¹³ Here, we draw on the methodology developed by the Sciences Po, CEE team as part of the CREATE research project (Halpern, Persico 2016).

Table 2c: WP2 city workshops: overview

	Workshop 1	Workshop 2	Organizers	Facilitation	MORE partners participating
Budapest	06/05/2019 (T2.1 Stakeholders mapping, 2 groups)	07/05/2019 (T2.3, controversies mapping, 2 groups)	C. Halpern, A. Háznagy	C. Halpern, J. McArthur	ScPo, UCL, BKK, TUD
Constanta	06/02/2019 (T2.1/3, Stakeholders mapping, 2 groups)	07/06/2019 (Bucharest) (T2.1)	C. Halpern, G. Lupascu, D. Dimitrescu	C. Halpern, J. McArthur, L. Cristea	ScPo, UCL, EIP, Constanta Municipality
Greater London	08/05/2019 (T2.1, Stakeholders mapping, 1 group)	09/05/2019 (T2.3, controversies mapping, 2 groups)	C. Halpern, J. McArthur, P. Jones, R. Naughton, T. Becker,	C. Halpern, J. McArthur	ScPo, UCL, TfL
Lisbon	13/03/2019 (T2.1, Stakeholders mapping, 2 groups)	14/03/2019 (T2.1, Stakeholders mapping, 1 group)	C. Halpern, S. Somsen	C. Halpern, J. McArthur	ScPo, UCL, EIP, Lisbon Municipality
Malmö	22/05/2019 (T2.1, Stakeholders mapping, 2 groups)	23/05/2019 (T2.1, Stakeholders mapping, 1 group)	C. Halpern, C. Resebo, M. Brodde Makri	C. Halpern, J. McArthur	ScPo, UCL, TUD, Malmö Municipality

3.4.3 Workshop organization

The selection of workshop participants varied from city to the other. It drew on the MORE stakeholders' mapping questionnaire (see above) and preparatory discussions between workshop organizers helped to further reduce this initial list down to 15-20 people.

Workshop participants were selected based on their knowledge of road space allocation and/or new demands that have been emerging and have not been considered yet. It was often a mix between people that are in place or retired, which reflected alternative visions on what the future of road space allocation entailed. Participants' with experience of the city's development across the past 15-20 year ensured that relevant historical knowledge was included. For the largest share of discussions, translators were not needed.

Workshop participants belonged to the following types of organizations:

- The city administration: departments in charge of transport & mobility, urban/strategic planning or environmental issues
- Transport authorities and transport service providers, infrastructure owners, mobility managers
- Public authorities at another level of government (e.g., districts, metropolitan/regional, State)
- Experts and consultants, working outside the municipality and playing an active role in developing solutions for coping with (new) demands – consultancy offices, technical assistance (incl. from EU or international organizations)

In those cities where a T2.3 workshop was organized, workshop participants also belonged to the following types of organizations:

- Business associations, private developers, utilities' companies
- NGOs and civil society organizations particularly active at city level in debates about road spaces

- Academics, experts or journalists

3.4.4 Workshop's content

In this report, we only refer to workshops contributing to the understanding of institutional and organizational challenges (Task 2.1)¹⁴.

The workshops were structured around the following questions and exercises:

➤ 4 general questions

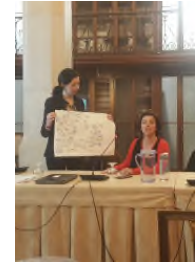
1. Assess the development of (new) demands for and challenges with alternative, more diverse road / street uses:
 - ⇒ *When did these (new) demands emerge? What are these (new) demands about? Why (main triggers) and how (main drivers)? What are the major tensions, between different street users, and also the institutions and actors governing street space?*
2. How have these (new) demands been addressed so far - planning and implementation stages?
 - ⇒ *Organizational or institutional changes? Cross-level coordination procedures? The setting of new standards or the ability to experiment? Specific procedures during policy-making and implementation, including consultation mechanisms, stakeholders' engagement, etc.? The production of new information, data, knowledge?*
3. Stakeholders' mapping exercise, in small groups (see below):
 - ⇒ *Identify existing institutional and governance structures characterizing the allocation of road space in your city.*
4. Looking towards the future, what are, in your opinion, the main challenges associated with dynamic road space allocation? How do you plan addressing them?
 - ⇒ *Technology, New types of mobility products and services, Demographic factors, Governance / interests' representation, Policy capacities, Others?*

➤ One mapping exercise, with the following guidelines:

- **Form groups of 5 people**
- **Choose a project that you are all familiar with** (pilot or small project)
- **Write names of all organisations** involved on post-its (1 name per post-it)
- **Arrange the post-its on your paper, draw links between them in black to show how organisations work together**
- **Note on each link, the nature of the interaction**
- **In a different colour, note the main challenges between organisations, annotating the map**

¹⁴ The second series of workshops will be presented in more detail in the second WP2 deliverable.

3.4.5 Examples of WP2 City workshops' outputs



WP2 City workshops supported the identification of the main institutional and organizational barriers and provided some understanding about the challenges associated with road space allocation strategies. The material gathered fed into the production of city portraits.

More generally, these workshops informed the general understanding of each partner of the institutional and organizational challenges raised by the design and implementation of road space allocation strategies at city level.

The different perspectives and insights gathered through both the questionnaires and the workshops/interviews fed into the data analysis.

3.5 Data analysis: City portraits

A major challenge when collecting data across five cities through qualitative methods is to collect, organize and analyse the data in the most systematic way, while at the same time offering sufficient room for manoeuvre in order to adapt to data availability in each specific context and to capture context-specific developments.

Drawing on the work done as part of the CREATE project, the MORE City portraits were developed by Jenny McArthur under the supervision of C. Halpern and based on the data collected through desk analysis and with the support of cities and partners. Their production involved the following people:

Table 2d: City portraits' authors: overview

City portrait	Author(s)
Budapest	Jenny McArthur (UCL), with input from Juliette Thijs (Sciences Po)
Constanta	Jenny McArthur (UCL), Doina Dumitrescu, Lucian Zagan and Lucia Cristea (EIP)
Greater London	Jenny McArthur (UCL), with input from Juliette Thijs (Sciences Po)
Lisbon	Jenny McArthur (UCL), with input from Juliette Thijs (Sciences Po)
Malmö	Jenny McArthur (UCL), with input from Juliette Thijs (Sciences Po)

City portraits are meant as a classifying tool and as living documents.

3.5.1 A classifying tool

City portraits aim to provide important background information to support data-collection for the cross-case analysis developed in the last section of this report. These 20 page documents are available in this report's appendices.

City portraits helped us organize the information collected through MORE meetings desk analysis and WP2's data collection strategy. The information is collected in a systematic way. In some cases, we were able to draw on secondary sources. Yet not all cities have benefited from the same level of attention in the academic literature in the field of urban studies, transport governance and policies, and in some cases, we primarily relied on the data collected as part of the MORE project. When no information has been collected, we explain why and show what we have tried to obtain. The sources are always specified.

City portraits all include an analysis of the material gathered as part of workshops while at the same time ensuring participants' rights in terms of data protection (see below). Notes from workshops and interviews for each city were organized in InViVo. Inductive coding was used to identify and codify the range of demands on road space, and the range of policy issues that road space allocation schemes relate to. These coded fragments were organised into broader categories, to represent the overarching challenges, and coordination barriers for road space re-allocation.

City portraits are all structured in a similar way:

1. Summary findings
2. Background context: History, urban development and economic change
3. Governance and political dynamics, incl. institutional and organizational arrangements, political context
4. Transport and urban development vision and policy objectives
5. Road space re-allocation, incl. institutional and organizational arrangements, new demands for more diverse uses of road space and barriers to coordination
6. Bibliography

3.5.2 Living documents

Alongside its main function as a classifying tool, city portraits have several other uses for this research. First, they are conceived as a living document that can be updated in order to include the data collected as part of Task 2.3 and other WPs in the MORE project that would be relevant for the understanding of governance and political dynamics, as well as remaining interfaces and barriers to dynamic road space re-allocation strategies. Second, apart from the case of London which is already the focus of much attention, these portraits fill a gap in the existing literature about transport governance and policies. Lastly, they also feed into local partners' dissemination strategies as their content could easily be used in order to develop short summaries.

Despite these advantages, we are also conscious of the limits associated with this data-collection strategy. It is limited by data availability, language issues and the ability of partners to support us with the organization of workshops for example. Also, the amount of data that we need to gather is quite large and has to tap into many different sources. This is particularly the case in this study due to the fragmentation of responsibilities associated with road space allocation and the challenges attached to the development of a comprehensive strategy.

3.6 WP2 technical workshop: generating cross-city findings

The WP2 technical workshop held in Paris on May 14 offered a timely opportunity to generate first cross-city findings, discuss them with a wide range of MORE partners, including representatives from the five cities. It also helped gather information about what had been identified within the WP2 team as a “missing link” in the way cities framed issues related to road space allocation at city level and transformed it into effective city-wide strategies and policies.

3.6.1 WP2 technical workshop’s objective

Following several months of joint work on these issues and before city partners started focusing on specific corridors, we collectively explored the challenges associated with the transformation of city visions and long-term strategic planning objectives for transport and mobility – as formulated in their respective sustainable urban mobility plans (SUMP’s) – into specific policy measures and more importantly, into an implementation plan at city-level.

More precisely, the technical workshop examined cities’ strategies about road space allocation through the following questions:

1. how is road space allocation framed?
2. what are the main priorities?
3. how is it operationalized in policy terms?
4. what are the main tools and venues available to policy makers?
5. to what extent will the work done in corridors contribute to this thinking at city level?

The workshop content was structured in order to ensure the relationship between the current state of city-wide thinking about allocating road space and how the work done on corridors as part of WP5 will inform the development of new approaches.

3.6.2 WP2 technical workshop’s content

In order to address these general questions, each city gave a 30-minutes presentation about “Strategic planning and implementation of road space re-allocation”. Preparations drew on the work done in previous stages of the research (questionnaires, WP2 city workshops) but also required significant additional background research and mobilizing expertise from different departments within cities.

The following guidelines were sent beforehand in order to support this work and were used in order to structure presentations:

1. Current vision about road space allocation
 - *What are the main characteristics defining road space allocation in your city?*
 - *If relevant, what are the main objectives/goals for rethinking road space allocation?*
2. Levels of politicization
 - *Is there a dominant political narrative behind road space allocation or is it mainly a technical issue addressed by the city administration?*

- *Whether politically- or technically-led, how is this strategy for re-allocating road space designed? Main documents, key policies, respective roles of political decision-makers vs. technical bodies*
 - *How will it be effectively implemented? timeline, key stakeholders, method, etc.*
3. From a transport planning perspective, what outcomes do you expect from the chosen corridor?
 - *experimenting with new ideas, procedures, governance etc.?*
 - *draw on existing experimentation in order to scale up at city level?*
 4. What are the main barriers you expect to encounter alongside the process and how do you plan to face them?
 - *the lack of standard procedures to be followed*
 - *insufficient political support or socio-economic resistances*
 - *insufficient organizational capacity and knowledge within the city administration / implementation delivery unit*

Drawing on the five city portraits, available in this report's appendices, the next section introduces the main findings across the cities.

4 Cross-city findings

Comparing the findings across the five cities highlights a striking paradox. There is nothing new about road space allocation being considered a critical tool for accommodating various demands and uses on the urban road network (Halpern 2019). It has been particularly instrumental in order to develop alternatives to car uses such as public transport and active modes. It operates through specific technical devices such as modelling, guidelines and urban design.

Nevertheless, and apart from TfL's healthy street's approach (London), which, to a large extent focuses on 'Place' rather than 'Movement' functions of streets and still remains to be fully operationalized and implemented on the ground, road space re-allocation has not been introduced in a systematic way as an integrated policy strategy aimed at ensuring dynamic road space management or at promoting a massive, profound reorganization of transport flows. This is mainly due to the fact that road space re-allocation never operates in vacuum but always in a crowded space. Road space is a valuable right-of-way and public commodity. A wide range of actors, both within and outside the state, make claims on street space and seek to expand access through policy and planning processes.

This section examines this paradox and explores the various ways through which road space re-allocation operates across the five cities. It successively introduces and discusses findings relating to the new demands on road space and challenges in accommodating more diverse uses, current responses to these demands across planning and implementation, and barriers to coordination to plan and implement new approaches to road space re-allocation.

This section examines the various ways through which road space re-allocation operates across the five cities.

4.1 Challenges with/ new demands for the re-allocation of road space

Within each of the five cities, there is no common understanding of what road space allocation means, of who should be responsible for it and why it should be introduced as an overarching policy solution for re-allocating road space throughout the urban road network. Altogether, three dominant understandings of road-space allocation were found across the five cities.

4.1.1 Cross-city findings: overview of three dominant understandings of the need for road space re-allocation

	Challenges with / new demands
Budapest	<ul style="list-style-type: none">- Centralisation of growth to the city centre- Growth in tourism, new forms of shared mobility
Constanta	<ul style="list-style-type: none">- Encouraging behaviour change- Comprehensive analysis of the city's transport system
Lisbon	<ul style="list-style-type: none">- Tourism and shared mobility services- Travel demand arising from interconnected local, regional, international networks
London	<ul style="list-style-type: none">- Accommodating growth through intensification of existing urban areas- Public health, air quality and road safety agendas
Malmö	<ul style="list-style-type: none">- Higher density development to accommodate growth- Prioritisation across transport modes

4.1.2 Road space re-allocation to accommodate future urban or economic growth

Across the different cities in MORE, road space re-allocation is examined as a result of pressures to accommodate future growth results from forecast population growth (London, Malmö) or in search of more polycentric forms of centralized urban development (Budapest, Lisbon, Constanta). In those cases, it is introduced in support of urban policies in the field of economic development (24h city or more diverse range of economic activities), housing, urban development and regeneration schemes, and place making. Urban logistics and the transport of goods are increasingly addressed as part of this rationale.

This creates demands to accommodate higher volumes of people and vehicles within fixed corridors. More generally, these challenges and demands justify recognising a growing tension between movement and place, and support a growing recognition of the latter's function.

4.1.3 Road space re-allocation to accommodate renewed demands for air quality, health and liveability

Renewed demands for air quality, health and liveability also placed demands on road space, insofar as they demand regulation of polluting vehicles or greater re-allocation of road space for pedestrians, cyclists and public transport. These measures are intended to encourage other road users to shift away from private car travel. While goals for improved air quality, health and liveability generate positive impacts for much of the population, schemes to re-allocate road space negatively impact parking supply for local residents, access to local firms for freight and delivery actors. It is sometimes used in combination with more stringent national or European measures aimed at permanently or occasionally restricting access to certain vehicles to (parts of) the urban road network according to levels of CO₂ or noise pollution.

Urban governments may choose to introduce additional stringent restrictions or incentives such as congestion charges, parking management and car bans.

Re-allocating space is politically challenging to implement as it creates significant inconvenience to motorists or specific user groups (urban logistics, taxi drivers, bus drivers, etc.). This is particularly the case in those cities or parts of those cities where much of the population are reliant on private car travel to move around the city, such as Constanta and Lisbon.

4.1.4 Road space re-allocation to accommodate road safety as well as a larger variety of transport uses and services

The last prominent challenge for road space re-allocation in cities results from a shift within transport relating to existent users claiming for increased safety and space. In all five cities, this leads to strengthening alternatives to car use such as public transport and active travel. The re-allocation of road space for pedestrians, cyclists and public transport on the one hand, and slower travel speeds for motorised traffic on the other hand are two preferred options.

Although all three alternatives are supported across these cities' transport planning objectives, policies and investment plans, some variations are observed across cities regarding the amount of resources and spatial coverage invested in each of these three sustainable transport modes. It should also be noted that these demands are often in tension with the demands of growth, even where growth in trips is accommodated by expansion of public transport, walking and cycling facilities.

Yet a relatively new and prominent challenge for road space re-allocation in cities also resulted from the recent introduction by new entrants such as Uber, Lyft, Lime, Ofo and DriveNow, etc., of shared mobility services. Since these platform-based services can scale up rapidly and aren't actively managed by existing traffic or public space regulations, their disruptive impacts on public spaces, and existing patterns of public transport or private hire taxi use, have been a major challenge for cities seeking to re-allocate road space and manage how it is used for travel and other activities.

Of the five cities in MORE, Lisbon is particularly active in encouraging shared mobility services and implementing soft measures to monitor and regulate their use in public spaces.

More generally, this understanding of road space re-allocation is particularly sought after by technicians and the transport industry. It has benefited from increased attention in the context of the smart city agenda and raises specific issues related to data management.

4.2 Road space re-allocation and policy change

As a policy strategy, road space re-allocation is made material through a variety of measure. In other words, there is no standardized way to design and implement road space re-allocation. To be sure, this reflects significant differences across the five urban contexts yet our findings also suggest that it relates to road space allocation as a policy solution itself. As an emerging field of intervention, it is poorly standardized in terms of policy practices,

especially at implementation or evaluation stages – for example, the lack of indicators to assess, monitor or evaluate road space allocation.

4.2.1 Cross-city findings: overview of most emblematic measures

	Current approaches
Budapest	<ul style="list-style-type: none"> - Redevelopment of major traffic junctions and public squares - Comprehensive network modelling
Constanta	<ul style="list-style-type: none"> - Promoting strategic planning - New public transport routes - Pedestrianisation of streets - Parking supply, charging and enforcement
Lisbon	<ul style="list-style-type: none"> - ‘Soft’ regulation of shared mobility operators - Public plaza programme
London	<ul style="list-style-type: none"> - Growth-led, integrated land use and transport planning - Healthy Streets Approach
Malmö	<ul style="list-style-type: none"> - Master-planned eco-districts - The City Package national investment programme

4.2.2 A variety of road space re-allocation uses

The five cities have distinctly different uses for road space re-allocation.

As a policy solution, it is not only deployed differently, but also to meet different objectives.

For example, road space re-allocation in London is strongly oriented to support growth, intensification and deliver the mayor’s 80/20 mode split target, while in Lisbon it focuses on improving the quality of streets and squares as public spaces. Malmö’s strategy prioritises international connections across the Oresund region, considering international commuter flows to and from Copenhagen.

These different sets of goals influence the ways that road space re-allocation is used in planning and implementation, in conjunction with local institutional arrangements that determine who has authority over road space and traffic regulation. This explains the preference for different re-allocation interventions across the cities - for example, in London the metropolitan transport authority only has direct control of 5% of the road network, and schemes implemented on borough-owned roads must go through consenting and approval processes with each relevant borough council. As a result, there is a preference for re-allocation schemes on TfL-controlled Red Routes, limiting the need for co-ordinated interventions across the entire city.

In those cities where liveability, air quality and health are prioritized, interventions to deliver these goals include the Healthy Streets Approach in London, the new parking strategy in Constanta, Malmö's eco-districts, public plaza redevelopments in Lisbon and the Heart of Budapest traffic-calming programme in Budapest.

4.2.3 A variety of urban policy entrepreneurs

The various ways in which road space re-allocation is used are far from being neutral. They also result from the active mobilization of policy entrepreneurs – technicians, managers, politicians, social movements, and economic actors – who strategically frame road space re-allocation as an effective policy solution to a given problem. More precisely, we find three different types of actors' coalitions across the five cities:

- When relating to growth accommodation, road space allocation is highlighted in strategic planning documents. In this case, such measures are often championed within city/ urban planning departments as part of urban development / regeneration plans, housing programmes, urban design initiatives, etc.
- When relating to liveability, health and air quality, road space allocation requires strong political leadership and, in the case of Lisbon and London, a profound change in the political outlook and in transport planning in order to cut across pre-existing institutional arrangements. On a daily basis, these measures stem from a variety of municipality departments such as those in charge of climate change and environment, health, or urban planning. In some cases, they are directly managed by the mayor's office.
- When aimed at re-allocating space between transport users, measures are often led by transport and/or mobility departments themselves, following intense consultations with transport authorities (Budapest, London) and representatives from various users' groups. Such measures are politically challenging as they create significant inconvenience to motorists or specific user groups (urban logistics, taxi drivers, bus drivers, etc.).

This confirms that far from being neutral, when designed as a policy strategy aimed at addressing growth, promoting air quality, health and liveability, or ensuring accessibility onto the network, road space re-allocation is highly political in nature. It contributes to politicizing issues that were previously addressed according to long established procedures and standards.

4.2.4 Road space re-allocation strategies

In addition to some differences in terms of policy entrepreneurs and types of policy measures, the above-mentioned differences in understanding road space re-allocation reflect in the choice of policy instruments. In those cases where the imperative to accommodate growth is a major driver for change, as observed in London and Malmö, growth-led, integrated land use and transport planning sought to prioritise road space to accommodate greater travel volumes.

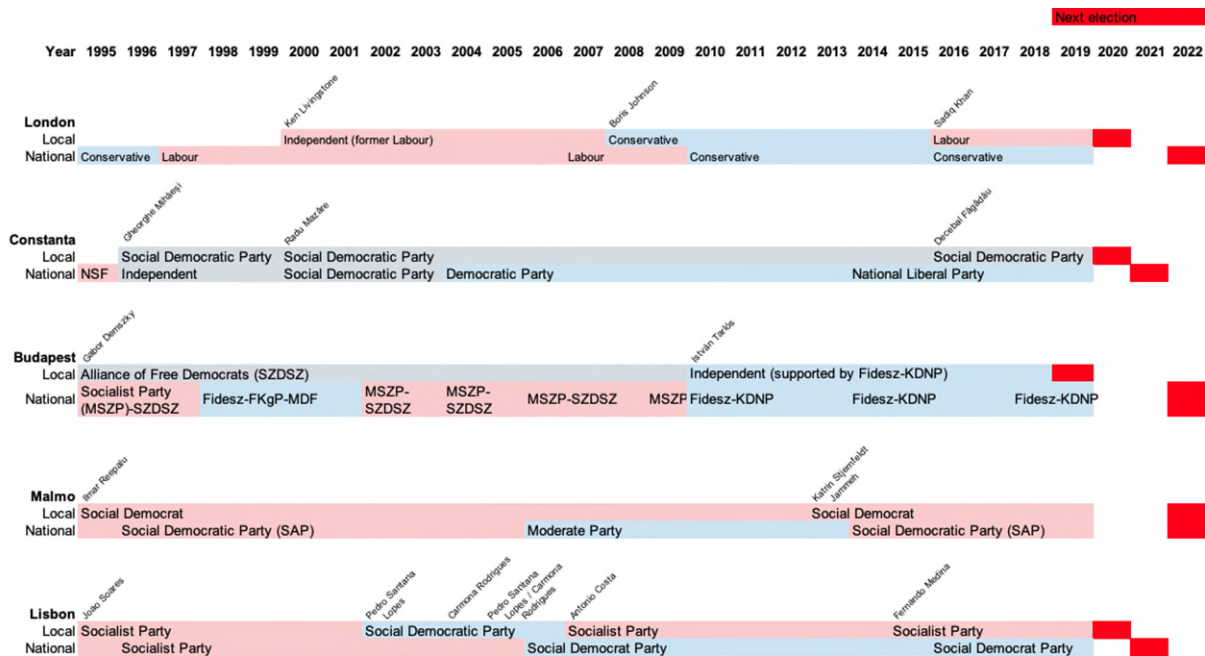
In Malmö's master-planned eco-districts, planners negotiated with property developers to allocate space outside new residential and mixed-use developments, to accommodate more movements while also supporting the streets 'place' function, for non-travel activities. The road network in Malmö has been over-capacity over recent decades where the city has grown rapidly. It was only once traffic reached a certain threshold that road congestion became more prominent, leading the municipality to consider prioritisation of transport modes and activities for the first time.

Contrastingly, London is a much larger city and has experienced congestion and the challenges of very high travel volumes for some time. It also has existing measures for road space prioritisation, including a congestion charge, ultra-low emissions zone, cycle super-highways and bus priority lanes. However, there are significant challenges to accommodate future growth, even with prioritisation schemes for more efficient modes. This arises from the fragmented governance of development in London, spanning across central government, the Greater London Authority (GLA), Transport for London (TfL), borough councils and private sector developers. While the GLA establish Opportunity Areas for concentrated growth, decision-making for specific development schemes is managed between borough councils and developers, whose priorities lie with local needs and the financial performance of individual development schemes (respectively).

4.3 Institutional, organizational and political barriers

Across the different organisational and institutional arrangements for road space re-allocation in each city, a range of coordination barriers limited their efforts to re-allocate road space. In the absence of a single authority responsible for allocating road space all cities have fragmented institutional and organizational arrangements, drawing together planning authorities, delivery agencies, private sector actors, non-government organisations and often central government. This is further exacerbated by political factors and evolving levels of political competition across levels of government.

4.3.1 Cross-city findings: an overview of the local-national political outlook



Source: J. McArthur and J. Thijs, MORE WP2, 2019.

4.3.2 Cross-city findings: overview of major institutional and organizational barriers

	Barriers
Budapest	<ul style="list-style-type: none"> - Tensions between objectives across different institutions - Divergent views on the right way to solve transport problems - Centralisation of power undermines the decision-making authority of actors outside political office
Constanta	<ul style="list-style-type: none"> - Data sharing and access across different organisations - Regulatory standards for new approaches to road space allocation
Lisbon	<ul style="list-style-type: none"> - Weak powers for strategic planning at the metropolitan level - Limited authority over regulations influencing travel behaviour - Public sector hiring freeze - Fragmented efforts to repurpose streets
London	<ul style="list-style-type: none"> - Conflicting performance targets across the different institutions responsible for allocating road space - Conflicting professional and technical ideologies across decision-makers - Disruption resulting from political cycles and participation of elected officials
Malmö	<ul style="list-style-type: none"> - Divergent ideologies on the priority given to private car travel - Specialisation of land use and transport planning - Political influence over decision-making

4.3.3 Institutional barriers

Institutional coordination across different levels of government is a key challenge for road space re-allocation. Coordination barriers result from the centralisation of political power, fragmented ownership of assets and allocation of financial resources. There are tensions between local and national governments over road space re-allocation where different levels of government have control and ownership of different parts of the network. For example, in London, coordination between levels of government is required at the interface between roads in the metropolitan jurisdiction, and the national highway network. However, coordination is

limited by differing ideological perspectives: Highways England (HE) focus on improving free-flow traffic conditions and accommodating vehicles, while within London TfL intentionally try to restrict traffic flows to encourage modal shift to public transport, walking and cycling. Thus, there is a risk that upgrades to the HE network could increase traffic on the London road network, undermining TfL's efforts to reduce it.

Allocation of budgets constitutes a key coordination mechanism between levels of government, for example, the Big City Package in Sweden funds transport investment, with housing delivery targets that the city must meet to receive the funds. Budget allocations can also undermine coordination, such as the removal of TfL's £700m annual operating grant in 2018. This creates severe financial constraints for TfL to cover their operating costs, and as a result, decision-making for service provision and re-allocation schemes are heavily influenced by the need to maximise operating revenues. This incentivises TfL to eliminate bus or rail services that operate at a loss, and reduce efforts to encourage modal shift to walking and cycling, since this will also reduce revenues. In Lisbon, the public sector hiring freeze imposed by the central government during the European debt crisis has constrained the municipality's ability to hire staff with new skills and technical capacities.

4.3.4 Organizational barriers

Horizontal coordination is required in fragmented settings, where organisations are siloed across different transport modes, land use planning, property and environmental management. The main barriers to horizontal coordination arise from contradictory performance targets, and delivering design and planning across silos that do not communicate to reconcile trade-offs and manage impacts external to each silo. For example, in Constanta there are multiple organisations at local and metropolitan scales responsible for traffic management, policing and planning, and the lack of common data formats and data-sharing platforms means that they cannot effectively share data to co-ordinate road space re-allocation schemes. Similarly, in the city of Malmö, several departments have authority over different aspects of road space re-allocation and there are no formal mechanisms to co-ordinate decision making across planning and design processes.

Approvals are given by boards responsible for each department, which means that decision-making is also fragmented and does not consider unintended impacts of re-allocation schemes beyond the scope of each department. Borough councils in London own 95% of the road network in the metropolitan area, as mentioned previously, which limits TfL's authority to co-ordinate decision-making. This is a challenge for road space re-allocation because local schemes often displace traffic to other boroughs, and TfL do not have the authority to manage these impacts.

4.3.5 Coordination beyond the public sector

With the significant involvement of the private sector in the delivery of transport schemes, operation of services, and property development, market-state relations are important. All five cities in MORE rely on private sector actors, and coordination is required for transport planning, design, and the implementation of schemes. Aligning time frames and sequencing of transport investments with property development is particularly challenging in London and Malmö, where master-planned growth areas are used to provide for future population growth.

Private developers require certainty on the allowable density of new developments, and the timing of new transport investments. Where urban governments responsible for planning approvals and transport planning face financial constraints and limited resources, processes are often delayed, increasing uncertainty and delays for property developers. Additionally, since the profit margin for property development depends on the density of development for new dwellings, developers have limited incentive to focus on transport improvements around their projects. However, some developers are adopting new approaches to transport, recognising the amenity that cycle parking, higher quality public spaces, and access to public transport, provide for residents.

Market-state relations are also relevant for the provision of mobility in services. A significant example of market-state coordination to mitigate the disruption of shared mobility is Lisbon's soft regulation approach. The city actively welcomed shared mobility start-ups, establishing Memorandums of Understanding (MoUs) with individual operators to set out the rules for where and when vehicles can be used in particular road spaces, and ensure access to data feeds that allow the municipality to monitor and regulate their activities. In other cities such as London, shared mobility services are restricted: scooter-sharing systems are banned and rideshare firms like Uber are closely monitored and regulated.

Together, the study of institutional and organizational factors and the way they operate in each city contributes to assessing the scope for road space re-allocation strategies at across the five cities.

4.4 Summary of cross-city findings: how do cities make it work?

Drawing on cross-city findings, the following two figures summarizes how and through which resources various stakeholders in cities challenge existing arrangements for allocating road space. They provide an understanding of the role of institutional, organizational and political factors.

The first figure (4a) provides an overview of how cities make it work in the absence of a single road space re-allocation authority. The second figure (4b) highlights the combination of policy resources they rely upon.

In the conclusion, we discuss how these findings contribute to the understanding of road space re-allocation strategies in the five cities.

Figure 4a: Governance arrangements and policy strategies

	Lisbon	Constanta	Budapest	London	Malmö
Metropolitan authority with transport functions				✓	✓
Integrated transport authority			✓	✓	
Sustainable Mobility Plan	✓	✓	✓	✓	✓
Subnational control of rapid transit system			✓	✓	
Strong political support	✓				
Policy experimentations underway	✓		✓	✓	

Source: WP2 presentation, MORE technical workshop, Paris, May 14, 2019

Figure 4b: Cross-city findings: capabilities for designing and implementing road space re-allocation strategies.

Constanta	Lisbon	Malmö	Budapest	London	
Limited financial resources					Financial
Fragmentation of delivery: strategy versus operational					
Limited / inadequate technical resources, Manpower					Organisational
Fragmented control of data, Limited / fragmented expertise					Informational
Weak metropolitan governance					Authority
Limited control over the drivers of traffic demand					
Local-national tensions					

Source: WP2 presentation, MORE technical workshop, Paris, May 14, 2019

5 Conclusion: understanding cities' capabilities to re-allocate urban road space

Cross-city findings pinpoint to a lack of a common understanding within and across cities of what road space allocation means, of who should be responsible for it and of the reasons why it should be introduced as an overarching policy solution for re-allocating road space throughout the urban road network. This stalemate is accounted for by the interplay between two different dynamics. Past and present decisions about the allocation of urban road space are shaped by evolving demands in favour of or against accommodating specific modes and users. This pertains both to governance and outcomes. A telling example of such demands is to be found in pressures to accommodate car traffic in the 1960s or prevent it since the mid 1970s onwards. It is to be seen whether in the light of a consolidating global agenda about the future of roads with fewer available choices, road space re-allocation becomes the main vehicle to deliver a holistic approach to urban space uses for European cities.

Road space re-allocation still needs to be made operational in governance and in policy terms if it is to become holistic. Its potential effects are, indeed, far from being neutral. First it questions the public nature of the urban road space and allows valuing it. Second, it proposes prioritizing between different uses and needs, and allocating road space accordingly in a more or less dynamic way. Third it opens new opportunities for a wide range of stakeholders, including cities and their governments, to take leadership over the urban road network, promote their own political agenda and challenge existing arrangements about the ownership, management, and daily operation of urban road networks.

Our findings also highlight the high level of fragmentation of those policy resources considered critical for designing and implementing city-wide road space allocation strategies. This confirms the need to go beyond a classic approach to institutional, organizational and political factors, which is often found in transport studies. By contrast, we find three different types of factors that cut across institutional, organizational and political factors and that offer a more precise understanding of existing barriers to road space re-allocation across the five cities:

- 1) Barriers in governance relating to the vertical and the horizontal distribution of governing resources both within and outside the public sector;
- 2) Barriers in the policy process relating to the lack of follow-through capacity from the design to the effective implementation of policies and measures;
- 3) Barriers in forms of leadership relating to two major distinctive forms of legitimacy and knowledge to initiate road-space re-allocation measures, namely that of technicians and that of politicians¹⁵.

Nevertheless, and despite institutional fragmentation and multidimensional coordination issues, some initiatives are being introduced, whether small or large scale, whether restricted to the design stage or already at implementation stage. Together, they account for the cities' capabilities for designing and implementing road space re-allocation strategies. This,

¹⁵ Findings suggests that a third type of legitimacy increasingly challenges both of them, namely that of users and citizen. This will be further explored in a future stage of WP2 research.

however, combines with socio-political dynamics, which will be examined in the next stage of WP2 research.

6 References

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7 Annexes

7.1 MORE Stakeholder mapping questionnaire: findings for WP2

7.1.1 MORE Stakeholder mapping questionnaire: findings for WP2 in Budapest

Name of Stakeholder	Stakeholder Category	Comment about responsibilities / activities
Municipality of Budapest	Authorities (municipal)	Local government of Budapest through General Assembly of Budapest
Municipality of Budaörs	Authorities (municipal)	District local government. Not subordinated to Municipality of Budapest, two-tier arrangement.
Municipality of Törökbálint	Authorities (municipal)	ibid
Municipality of District 11	Authorities (municipal)	ibid
Municipality of District 12	Authorities (municipal)	ibid
Municipality of District 1	Authorities (municipal)	ibid
Municipality of District 5	Authorities (municipal)	ibid
Municipality of District 7	Authorities (municipal)	ibid
Municipality of District 8	Authorities (municipal)	ibid
BFVT (city planning office)	Authorities (municipal)	
Ministry of Technology and Innovation	Authorities (national)	
Budapest Public Road Nonprofit Ltd. (Budapest Közút)	Authorities (national)	Road operator of Hungary – also bridge operator of Erzsébet bridge
Budapest University of Technology and Economics	Others	
Municipality of Pest county	Authorities (Municipal)	
Hungarian Cyclist's Club	Communities (National level)	Significant cycling civil organisation affiliated to European Cyclists' Federation (co-authored "Cycling Budapest Strategy" with Budapest)
The Clean Air Action Group	Communities (National Level)	National federation for over 60 NGOs. Themes: sustainable transport, energy policy, urban development, green areas in cities, greening state budget
BKV (in-house public transport operator)	Authorities (municipal)	
Volanbusz (agglomeration coach operator)	Business (national and international)	Private national and international bus company departing from Budapest
Hungarian railway company (MÁV-START Vasúti Személyszállító Zrt)	Authorities (national)	State-owned company
Road operator of Budapest	Authorities (municipal)	Parking
Hajtás Pajtás (delivery by bicycle)	Business (Municipal level)	Delivery
Budapesti Mozgáskorlátozottak Egyesülete (Association of disabled people in Budapest)	Communities (Metropolitan)	Community-building and advocacy for disabled in Budapest
Velovelo (cyclist counting)	Business	Eco-Counter

Járókelők (community based public website with urban reporting service)	Communities (national)	Non-governmental volunteer-led organisation
Hungarian Automobile Club (MAK)	Communities (national)	Helpdesk and technical services, interest protection, traffic safety, etc.
Taxi operators (regulated by BKK, direct connection is available through Budapest Közút)	Business (national/municipal)	Ex of companies: Taxi 4, taxi Plus, Budapest Taxi, Taxify, Elit Taxi, Fotaxi, etc.
Szent Rókus Hospital	Others (municipal)	
Szent Rókus chapel	Others	
HOTEL Astroia	Business	
Corvin Mall	Business	
Rudas SPA	Business	
Rácz SPA	Business	
University of Physical Education	Others	
Budapest Congress Centre	Business	
Novotel Budapest	Business	
Budapest waterworks	Authorities (municipal)	Public-owned water supply, drainage and treatment company
MOL Limo (car sharing operator)	Business (municipal: Budapest)	
GreenGo (car sharing operator)	Business (municipal: Budapest)	
Főkert (public garden operator)	Authorities (municipal)	Green area development and maintenance in Budapest
FKF (waste management company of Budapest)	Authorities (municipal)	Public-owned service company. Collect, transport and dispose municipal waste
Főtáv (district heating company)	Authorities (municipal)	Public-owned company

7.1.2 MORE Stakeholder mapping questionnaire: findings for WP2 in Constanta

Name of Stakeholder		Stakeholder Category	
Constanta Municipality	Public services Department	Authorities (municipal)	
	Urban Planning Department		
	Patrimony Department		
	Cadastral Department		
	Local police General Department		
	Financial Department		
	Development and European Funding Department		
County Council	General Department for Public and Private domain Administration	Authorities	
	Transport Authority		
	County Autonomous Company for Road and Bridge		
General Inspectorate of National Police		Authorities (national)	Central unit of police in Romania
Police Inspectorate of Constanta County		Authorities (regional)	Romanian Police is divided into 41 County Police Inspectorates
Road Police		Authorities	

National Government	Ministry of Transport	Authorities (national)	State authority in transportation
	Ministry of Regional Development and Public Administration.		Themes: regional development, cross-border, spatial planning, etc.
Romanian Road Authority (ARR)		Authorities (national)	Technical body of Ministry of Transport in licensing, route licenses, certifications, etc.
Romanian Auto vehicle Register (RAR)		Authorities (national)	Technical body of Ministry of Transport in road vehicles, road safety, enviro protection and quality assurance.
Road administration company SC. Confort Urban/local		authorities	Construction of roads and highways
National Company for motorways and road infrastructure (CNAIR)		Business	Maintenance of highways, development public road network, collection at borders and tariffs on highways, etc.
The National Union of Road Haulers from Romania (UNTRR)		Others (union)	Promote and protect interests of road hauliers
Romanian Public Transport Union (URTP)		Others (union)	Public transport operators and companies in the provision of public transport
Autonomous Company for Public Transport (RATC) - Constanta city public local transport operator		Authorities (municipal)	Bus routes and bus city tours
Constanta city private local transport operator	Grup Media Sud Călători Company	Business	Urban, suburban and passenger transport
	Dorada Transporting Company	Business	
	Sybel Pro Invest Company	Business	
Metropolitan Company - Constanta county private local transport operator		business	
Constanta county private local transport operator	Transevren Company	business	
	Timona S Company	business	
Tomis Bike Constanta		Communities (municipal)	Organises events, walks, competitions
Mare Nostrum		Communities (municipal)	Environmental protection in Black Sea Region
Constanta Altfel		Communities (municipal)	Link between local government and citizens

Centrul Pentru Resurse Civice		Communities (municipal)	Civic awareness in Constanta
Baricada Verde		Communities (national)	Environmental advocacy
Eco Dobrogea		communities	Environmental advocacy
Verde Urban		Communities (municipal)	Urban green spaces
Fan Courier Express Company	National company	business	Courier service
Urgent Cargus	National company	business	Courier service
DHL Company	International company	business	Courier service
TNT Company	International company	business	Courier service
DPD Company	International company	business	Courier service
Nemo Express Company	National company	business	
Sprint Curier Company	National company	business	
BLC TOUR Company	National company	business	
CHRISTIAN TOUR Company	National company	business	
CAPTAIN TRAVEL Company	National company	business	
ICAR TOUR Company	National company	business	
Ovidius University	Constanta	Others	
Taxi Company	Romaris Taxi Company	business	
	General Taxi Company	business	
	City Taxi Company	business	
	Taxi Mondial Company	business	
	Trans Taxi Company	business	
	Scorpion Taxi Company	business	
Tpark Company	National company	business	SMS parking payment
Chamber of Commerce, Industry, Navigation and Agriculture Constanta	Municipal level	Non-governmental organisation	Represent, defend and support interests of business community
Telekom Romania Mobile Communications Company	National company	Business	Provides mobile telecommunication services
Siemens Company	International company	Business	Automation company
Swarco Company	International company	Business	Umbrella organisation
RCS&RDS Company	National Company	Business	Telecommunications
Avitech Romania Company	National Company	Business	Systems integration
S.C. Luxten Lighting Company	National Company	Business	Light sources
E-Distribuție Dobrogea Company	National Company based in Constanta	Business	Electric distribution
Dobrogea Emergency Situation Inspectorate (I.S.U.)		Authorities: municipal	Limit, remove and counteract risks
The Association Children Hopefuls;		Others	
Cristina Center		Others	
Daruieste aripi association		Non-profit organisation (municipal level)	Medical and education
General Direction of Social Assistance and the Protection of the Child		Authorities (national and municipal)	Welfare

International Association of Public Transport		Communities (international)	International non-profit advocacy group for public transport
EUROCITIES		Others	Network of large cities in Europe (Constanta is a member)
Constanta Metropolitan Area Association		Authorities	
Romanian Metropolitan Areas and Urban Agglomeration Federation		Authorities (national)	
CIVINET network		Others	Group of city networks (urban sustainable mobility)

7.1.3 MORE Stakeholder mapping questionnaire: findings for WP2 in Lisbon

Type of Stakeholder (Generic)	Name of Stakeholder	Stakeholder Category	Comment about responsibilities/ activities
Decision makers (authorities)	Municipality of Lisbon	Authorities (Municipal)	Second-level administrative subdivision of Portugal
	City Council (Câmara Municipal)	Authorities (Municipal)	Executive body of the municipality
City administration	Public Space Municipal Department	Authorities (municipal)	Urban street design guidance organization
	Planning Municipal Department	Authorities (municipal)	City/Region planning teams
	Mobility Municipal Department	Authorities (Municipal)	Road classification organization / Infrastructure owner
	Mobility Management Municipal Department	Authorities (municipal)	Traffic safety / accident analysis and mitigation
	Mobility Planning Municipal Division	Authorities (municipal)	Road network classification
	Environment, Energy and Climate Change Municipal Department	Authorities (Municipal)	Flood mitigation, safety, energy
	Regulatory institutions	IMT – Mobility Transport Institute	Authorities (National)
APA - Portuguese Environmental Agency		Authorities (national)	Performance monitoring organization
	Lisbon Metropolitan Area	Authorities (Metropolitan)	Administrative division that include 18 municipalities
Transport users (Walking, cycling, car, van, truck, bus, tram, PT passengers, intermodal travellers)	Lisbon Transports User's Commission	Authorities (municipal)	
	MUBi – Urban cycling mobility association	Communities	
	ACAM - Association of Self-Mobilized Citizens	Communities	

	UVE - Electric vehicles Users Association	Communities	
	FPCUB - Portuguese cycletourism and bicycle users federation	Communities	
Transport service providers	Carris	Authorities (Municipal)	
	Lisbon Subway	Authorities (National)	
	CP - National Train Company	Authorities (National)	
	Takargo	Business	
	Lisbon Metropolitan Area	Authorities (Metropolitan)	
Parking and delivery service providers	EMEL - Lisbon Municipal Parking Company	Authorities (Municipal)	
	Empark	Business	
	Saba parkings	Business	
Research Institute	LNEC	Others	
Universities / Academic experts	IST	Others	
	FEUP	Others	
	FCUP	Others	
	UC	Others	
Land owners	Assets Municipal Department	Authorities	
	IP - Portugal Infrastruture Company	Authorities	
	Port of Lisbon	Authorities	
	CP - National Train Company	Authorities	
	IP - Portugal Infrastruture Company	Authorities	
	Port of Lisbon	Authorities	
Environmental organizations	GEOTA	Communities	
	QUERCUS	Communities	
	LPN	Communities	
	ADENE	Communities	
Disability groups	ACAPO - blind association	Communities	
	APD - Disability Portuguese Association	Communities	
Homelessness associations	Comunidade Vida e Paz	Communities	
Utilities with subsurface assets	Lisbon Subway	Business	
	Gas	Business	
	Electricity	Business	
	Electronic Communications	Business	
	Water	Business	
	Sewage	Authorities	
Police/traffic enforcement	Municipal Police	Authorities	
	Public Security Police	Authorities	
Homelessness associations	Municipal Housing and Social Development Department	Authorities	

	Comunidade Vida e Paz	Communities	
Digital infrastructure providers (e.g. traffic management and control systems providers, telecommunication companies, and ICT companies)	VODAFONE	Business	
	NOS	Business	
	MEO ALTICE	Business	
	NOWO	Business	
	Municipality of Lisbon (Gertrude)	Authorities	
	Waze	Business	
Physical infrastructure providers/owners (i.e. authorities)	ERSE - Gas	Authorities	
	ERSE - Electricity	Authorities	
	ANACOM -Electronic Communications	Authorities	
	APA - Water	Authorities	
Mobility service providers (all modes)	DriveNow	Business	
	EMOV	Business	
	Hertz 24/7 City	Business	
	eCooltra	Business	
	LIME	Business	
	HIVE	Business	
	GIRA	Authorities	
Transport Planners - consultants	TIS	Business	
	Figueira de Sousa	Business	
	Way2Go	Business	
	Transitec	Business	
	MPT	Business	
	Exacto	Business	
	VTM	Business	
	Engimind	Business	
	Trenmo	Business	
	PerformEnergia	Business	
Tourist agencies	Portuguese Tourism Institute	Authorities	
	Lisbon Tourism Association	Communities	
	AHRESP - Hotel and restaurants association of Portugal	Communities	
Chamber of commerce	CCIP - Portuguese Chamber of Commerce and Industry	Communities	
Taxi associations	ANTRAL	Communities	
Professional Organisations	ANTP - National transporters association	Communities	
	ANTROP - National heavy passenger vehicles association	Communities	

7.1.4 MORE Stakeholder mapping questionnaire: findings for WP2 in Greater London

Name of Stakeholder		Stakeholder Category	Comment about responsibilities/ Activities
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Transport for London	Spatial Planning and Commercial Development	Authorities (municipal)	
Network Rail		Authorities (government owned company)	Operate railway infrastructure
GLA (Greater London Authority)	Transport Team Planning Team	Authorities (Metropolitan)	
Tim Steer - Advisor to Deputy Mayor for Transport (GLA)		Authorities	
32 London Boroughs, City of London	Planning teams	Authorities (Local)	Local government (council)
	Regeneration teams		
	Sustainability teams		
	Borough councils		
Department for Transport		Authorities (national)	
Office of Rail and Road		Authorities (national)	
London Cycling Campaign		Non-governmental organisation (metropolitan)	Voice to cyclists in Greater London
Living Streets		NGO (national)	Pedestrian charity
British Cycling		Others: governing body for cycle sports (national)	Administers of competitive cycling
Residents groups		Communities (municipal/local)	
Commuters		Communities	
Tourists (VisitLondon.com)		Others	
Freight and servicing (represented by industry bodies)	FTA RHA	Business	
Powered two-wheelers (motorcycle + scooter) - some representation through road safety orgs like Brake and through the British Motorcyclists Federation		Communities	
Deliveroo	International company	Business	Food delivery through riders
MoBike	International company	Business	Dockless, cash-free bike share platform
Ofo	International company	Business	ibid
CityMapper	International Company	Business	Public transit map and mapping service

Bus companies (contracted by TfL)	Arriva	Business	
	Abellio London		
	Go Ahead		
	London United		
	Metrobus		
	Metroline		
	Stagecoach London		
	Sullivan Buses		
	Tower Transit		
Coach companies	National Express	Business	
	Megabus		
Uber	American international company	Business	Peer-to-peer ridesharing, food delivery, bicycle-sharing scheme
NCP (National Car Parks)	National	Business	Parking provider
Shoppers		Communities	
Buskers/Street performers		Business	
Housing Developer	Peabody	Business	
	Barratt Homes		
	Berkeley Group		
Housing Association	Circle	Business	
	Poplar HARCA		
Developers		Business	
Galliard Homes		Business	
Regal London		Business	
Pocket		Business	
BT		Business	
Thames Water		Business	
National Grid		Authorities (national)	
Verizon		Business	
EDF		Business	
Colt		Business	
Thames Water		Business	
TRL		Business	
Future Thinking		Business	
Living Streets		Others	
Sustrans		Business	
Arup		Business	
UCL - Peter Jones		Others	
Westminster University - Rachel Aldred		Others	
Santander (sponsor cycle hire scheme)		Business	
Emirates (sponsor cable car)		Business	
Canary Wharf Group		Business	
City of London		Authorities (municipal)	
Crown Estate		Business	
Grosvenor Estate		Business	

Development Corporations	London Legacy Development Corporation	Authorities	Often created to develop large areas of land that cross multiple borough boundaries
	Old Oak and Park Royal Development Corporation		
Friends of the Earth		Communities	
Federation of Small Businesses		Business	
London Chamber of Commerce and Industry		Business	
South East London Chamber of Commerce		Business	
Old Kent Road Business Network		Business	
TNT (depot on Mandela Way - adjoining northern end of A2)		Business	
Yodel (depot on Mandela Way - adjoining northern end of A2)		Business	
DPD (depot on Mandela Way - adjoining northern end of A2)		Business	
Asda (superstore located on Old Kent Road, store located on New Cross Road A2)		Business	
B&Q (large homewares store on OKR)		Business	
Halfords (large auto parts shop on OKR)		Business	
Enterprise (car rental)		Business	
Hertz (car rental)		Business	
BP (petrol station)		Business	
A Better Besson Street (campaign group opposing planned development near New Cross)		Communities	
Many in London. Bexleyheath BID is the only one for an area located on the A2		Business	
Town and Country Planning Association (TCPA)	National level	Communities	More responsive and sustainable planning system
Wheels for Wellbeing	National level	Communities	Cycling for disabled people
Disabled Motoring UK	National level	Communities	Disabled drivers
Guide Dogs	National level	Communities	Provide guide dogs for those in need
TfL Independent Disability Advisory Group (IDAG)	Municipal level	Communities	More accessible and inclusive
RAC Foundation	National level	Communities (transport policy and research organisation)	Economic, mobility, safety and enviro issues related to roads and users
The Alliance of British Drivers	National level	Communities	Interests and concerns of drivers
Campaign for Better Transport	National level	Communities	Promotes better bus and rail services + less expenditure on road building

London Transport Users Committee (aka London TravelWatch)	Municipal level	Communities (Consumer organisation)	Improve transport in London (deals with complaints)
Local schools		Communities	
Places of worship		Communities	
Metropolitan Police	Metropolitan	Authorities	Law enforcement in Metropolitan Police District
British Transport Police	England, Scotland and Wales	Authorities	Police for railways and light-rail systems
Centrepoint	National level	Communities	Homeless young people
Shelter	National level	Communities	Housing and homelessness
St Mungo's Crisis	England level	Communities	Homelessness
	National level	Communities	Homelessness
Big Issue	National Level	Communities	Magazine that creates employment to dismantle poverty
Single Homeless Project (SHP)	Municipal level (London)	Communities	Prevent homelessness, help vulnerable and excluded people
Mayor of London / GLA		Authorities	
Siemens (awarded a TfL contract to upgrade traffic management system)		Business	
Train Operating Companies (TOCs) ¹⁶		Business	
Motability (provide mobility scooters, adapted cars, etc. to disabled people)		Business	
Port of London Authority		Business	
Emergency Services (in particular, Old Kent Road Fire Station and Deptford Ambulance Station both located on A2)		Others	
Consultancy	Mott Macdonald	Business	
	WSP	Business	
	Atkins	Business	
	Amey	Business	
Universities	Imperial	Others	
	UCL	Others	
	University of Westminster	Others	
	City University	Others	

¹⁶ See list here: http://www.londontravelwatch.org.uk/links/train_operating_companies

7.1.5 MORE Stakeholder mapping questionnaire: findings for WP2 in Malmö

Name of Stakeholder		Stakeholder Category	Comments about responsibilities / activities
City of Malmö	Estates Streets and Parks Department, City Development Department	Authorities (municipal)	Land owner
City administration, City Planning Department	Strategy Department	Authorities (municipal)	Urban street design
City administration, Estates, Streets and Parks Department	Public Space Department	Authorities (municipal)	Infrastructure owner / Asset maintenance and management organizations, e.g. utilities
	City Development Department, Mobility Unit	Authorities (municipal)	Urban street design / traffic safety / accident analysis and mitigation
	Strategy Department	Authorities (municipal)	Flood mitigation, safety, energy
	Strategy Department, Analysis and Development Unit	Authorities (municipal)	Road network classification / Performance monitoring organizations
	Swedish Transport Administration, National Planning Department	Authorities (National)	Road network classification / Road classification organizations / Street design guidance organizations
Transport users (walking, cycling, car, van, truck, bus, tram, PT passengers, intermodal travellers)	Swedish Road Carrier Association	Authorities	
	Cykelfrämjandet - Swedish Cycling Advocacy Organisation	Communities (national)	
	FOT - Swedish Pedestrian Association	Communities	
	Motormännen - Swedish Car Driver Organisation	Communities	
	PRO - The Swedish National Pensioners Organisation	Communities	
	Disability council	Communities	
Transport service providers	Skane Region - Skane Traffic	Authorities (regional)	Planning and providing Public Transport in Skane Region
	Nobina	Business	Bus owner and contractor
	Clear Channel Malmö - MAAS -	Business	bike system provider
	Sunfleet - MAAS -	Business	car system provider
	P-Malmö -	Business	Parking facilities owner
Business owners	PÖM AB - Parking Surveillance	Business	
	Malmö Citysamverkan	Communities	Association of City Center Business owners,

			Property Owners and the City
	Western Harbour Economic Association	Communities	
Business and housing owners, north part	Copenhagen Malmö Port	Business	
	Castellum	Business	
	Järnhusen	Business	
	Volito	Business	
	Wihlborgs	Business	
	Skanska	Business	
	NCC	Business	
Academic experts	K2 - The Swedish Knowledge Center for Public Transport	Others	
	Malmö University	Others	
	Lund University	Others	Department of Technology and Society, Transport and Roads
	ISU – Institute for Sustainable Urban Development	Others	
Experts	Tyrens Infrastructure Consultants	Business	Consulting companies with assignment
	ÅF Engineering and Design	Business	Consulting companies with assignment
	Kanozi arkitekter	Business	

7.2 Policy documents: findings about the governance section, Joint WP1/2 Questionnaire

In this section, we chose to mention only those policy documents mentioned in full by city partners in their answers to Joint WP1/2 questionnaire that are relevant for WP2. As a result, general references made to “national regulations and standards” are not included here. Detailed answers to the questionnaires including guidelines or recommendations for example, are available as part of the D1.2 report, edited by TUD. This preliminary list was completed by the WP2 team as part of the work done in city portraits (see annexes).

7.2.1 Policy documents Budapest

BKK Centre for Budapest Transport (2019) Budapest Mobility Plan 2014-2030 (Phase 2 : Objectives and Measures, Programming, Monitoring and Evaluation, Institutional Analysis, Strategic environmental assessment), approved by the General Assembly of Budapest, 2019 : <http://einfoszab.budapest.hu/list/fovarosi-kozgyules-nyilvanos-ulesei?id=100859;type=5;parentid=11032;parenttype=2>

BKK Centre for Budapest Transport (2015) Budapest Mobility Plan 2014-2030 (Phase 1: Objectives and Measures), approved by the General Assembly of Budapest, 2019: http://www.sump-challenges.eu/sites/www.sump-challenges.eu/files/bmt2016_eng_v3.pdf [18 March 2019], see also: http://budapest.hu/Documents/V%C3%A1ros%C3%A9p%C3%ADt%C3%A9si%20F%C5%91oszt%C3%A1ly/_Bal%C3%A1zs%20M%C3%B3r%20Terv_ENG.pdf ("Budapest Mobility Plan - SUMP of Budapest_EN.pdf") [18 March 2019]

MAUT (2008) Road Planning. e-UT 03.01.11. ("e-UT 03.01.11. Road Planning (RP) (General National Standard for Road Planning)_HU.pdf")

Municipality of Budapest (2014), Budapest Regional Development Concept, 2014, first part:

<http://budapest.hu/Documents/V%C3%A1ros%C3%A9p%C3%ADt%C3%A9si%20F%C5%91oszt%C3%A1ly/Budapest%20Ter%C3%BCletfejleszt%C3%A9si%20Koncepti%C3%B3%20I.%20k%C3%B6tet%20Javaslat.pdf> / 2nd part:

<http://budapest.hu/Documents/V%C3%A1ros%C3%A9p%C3%ADt%C3%A9si%20F%C5%91oszt%C3%A1ly/Budapest%20Ter%C3%BCletfejleszt%C3%A9si%20Koncepti%C3%B3%20II.%20k%C3%B6tet%20Tervez%C3%A9st%20k%C3%ADs%C3%A9r%C5%91%20elj%C3%A1r%C3%A1sok.pdf>

Municipality of Budapest (2013) Budapest 2030. Long-Term Urban Development Concept, English summary at http://budapest.hu/Documents/V%C3%A1ros%C3%A9p%C3%ADt%C3%A9si%20F%C5%91oszt%C3%A1ly/Budapest2030_ENG_summary.pdf [18 March 2019], "Budapest2030 - Long-Term Urban Development Concept_EN.pdf"

Municipality of Budapest, Mayor's Office, Department of Urban Planning (2015) Integrated urban development strategy Budapest 2020. Summary.

http://budapest.hu/Documents/V%C3%A1ros%C3%A9p%C3%ADt%C3%A9si%20F%C5%91oszt%C3%A1ly/Budapest2020_ENG_summary.pdf [21 April 2019] "Integrated Urban Development Strategy_Budapest2020_ENG_summary.pdf"

Municipality of Budapest, Mayor's Office, Department of Urban Planning (2017) Smart Budapest – The smart city vision of Budapest.

http://budapest.hu/Documents/V%C3%A1ros%C3%A9p%C3%ADt%C3%A9si%20F%C5%91oszt%C3%A1ly/Smart_Budapest_summary_ENG.pdf [21 April 2019] see also <https://smartcitybudapest.eu/> "Smart city vision of Budapest_Smart_Budapest_summary_ENG.pdf"

7.2.2 Policy documents Constanta

Constanta Municipality (2015), Sustainable Urban Mobility Plan: <http://www.primaria-constant.ro/oras/planul-de-mobilitate-urbana>

7.2.3 Policy documents Lisbon

City of Lisbon (2012) Lisbon Master Plan. <http://www.cm-lisboa.pt/viver/urbanismo/planeamento-urbano/plano-diretor-municipal/pdm-em-vigor>

City of Lisbon (2013) Lisbon Pedestrian Accessibility Plan: <http://www.cm-lisboa.pt/viver/mobilitate/acessibilidade-pedonal/plano-de-acessibilidade-pedonal>

Programa_Governo_Lisboa_2017-2021 (City Governing Program 2017-2021): <http://www.cm-lisboa.pt/en/city-council/city-council>

7.2.4 Policy documents London

Mayor of London (2018) Mayor's Transport Strategy. <https://tfl.gov.uk/corporate/about-tfl/the-mayors-transport-strategy>, see also <https://tfl.gov.uk/corporate/publications-and-reports/travel-in-london-reports#mtsevidence>

Mayor of London (2018a) Walking action plan. <https://tfl.gov.uk/corporate/publications-and-reports/travel-in-london-reports#mtsevidence>

Mayor of London (2018b) Cycling action plan. <https://tfl.gov.uk/corporate/publications-and-reports/travel-in-london-reports#mtsevidence>

Mayor of London (2018c) Vision Zero action plan. <https://tfl.gov.uk/corporate/publications-and-reports/travel-in-london-reports#mtsevidence>

Roads Task Force (2013) The vision and direction for London's streets and roads. <https://tfl.gov.uk/corporate/publications-and-reports/roads-task-force>

TfL. (2014). Street Types for London. [online]. Available at: <https://tfl.gov.uk/info-for/boroughs/street-types>

TfL. (2016). London Cycling Design Standards. [online] Available at: <https://tfl.gov.uk/corporate/publications-and-reports/streets-toolkit>

TfL (2017a) Healthy streets for London. <http://content.tfl.gov.uk/healthy-streets-for-london.pdf>

TfL. (2017b). Guide to the Healthy Streets Indicators: Delivering the Healthy Streets Approach. [online]
Available at: <http://content.tfl.gov.uk/guide-to-the-healthy-streets-indicators.pdf>

TfL. (2017c). Healthy Streets Surveys. [online] Available at: <http://content.tfl.gov.uk/healthy-streets-surveys.pdf>

7.3 City portraits

- Budapest
- Constanta
- Lisbon
- London
- Malmö



City portrait: Budapest

Annex to D2.1 report

Start date of project: **1st September 2018** Duration: **36 months**

Version: **2**

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1 Summary findings

Road space reallocation has been a priority in Budapest across the last decade, to meet goals for improved liveability and environmental sustainability. However, in recent years the city has faced new challenges implementing road space reallocation schemes, with significant growth in tourism activities, as well as residential and commercial developments in the city centre. Higher traveller volumes put pressure on multi-modal corridors to accommodate public transport and active travel modes, alongside continued demand for private vehicle access to the city centre. Shared mobility services have also created additional traffic on road spaces and pedestrian areas. These demands are addressed through schemes to retrofit major public junctions, restricting vehicle access and improving amenity for pedestrians and cyclists. Additionally, BKK Centre for Budapest Transport (BKK) developed an integrated network model of the city's transport system to inform more robust decision-making for transport investment, and better address the impacts of local reallocation schemes on the overall transport network. There are co-ordination barriers across different institutions to reallocate road space, resulting from different ideological views on the need to cater for private vehicles, conflicting incentives created by misaligned institutional and organisational goals, and increased centralisation of power over transport decision-making.

2 Background context: history and economic change

Budapest is the political and economic centre of Hungary, with a population of 1,750,000 (KSH, 2018). Major political shifts in Hungary influenced the development of the city's transport infrastructure, including the democratic transition in 1989 and accession to the European Union in 2004. Before the transition, investment in roads across Hungary generally grew in proportion to economic growth, and declined during the 1980s.

After 1989, the availability of debt finance enabled investment to increase, despite an economic downturn (Hook, 1999). Over the 1990s, public transport use fell significantly from 82% in 1988 to 60% by 1996. (ibid.). By 2007, transport planning in Budapest had changed dramatically to recognise the structural problems causing congestion, parking problems and deterioration of the public transport. Following accession in 2004, the influence of the European Union was seen through trends toward traffic calming and congestion charging measures (Juhász & Mátrai, 2013). The establishment of BKK, an integrated transport provider, by 2010 shifted the local priorities to focus on improving public transport and cycling mode shares.

Preliminary desktop research and surveys established the local context for Budapest, covering politics, urban development, transport and local governance arrangements.

3 Governance and political dynamics

Different levels of government are responsible for road space reallocation in Budapest, including districts, Budapest Municipality and the central government. The last major institutional reform took place in 2010, when BKK Centre for Budapest Transport (BKK) was established as an integrated transport authority. BKK are responsible for preparing the city's transport strategy, and oversight of the delivery of public transport services (Mátrai & Kerényi, 2013).

3.1 Institutional and organisational arrangements

Table 1, below, summarises the institutions responsible for road space allocation through transport planning, provision of transport and police services, regulation of road spaces and allocation of budgets.

Table 1: Institutions responsible for road space allocation in Budapest

Jurisdictional scale	Institution	Responsibilities
Municipality	Budapesti Közlekedési Központ (BKK) / BKK Centre for Budapest Transport <i>Integrated transport agency</i>	Mobility manager for Budapest. BKK supervise and contract out public transport services in Budapest. BKK are responsible for timetable, ticket system, network development and procurement. BKK also operate the bike-sharing system (MOL Bubi). BKV (Budapest Transport Plc.), Volánbusz, VT-Arriva are the bus operators, BKV also operates tram, trolleybus, metro and boat systems.
Municipality	Budapest Közút / Budapest Public Roads <i>Road operator</i>	Budapest Public Roads are responsible for maintaining: - Roads, bridges owned by the Budapest Municipality - Public transport routes (including roads not owned by the Municipality)
Municipality	Budapest Municipality <i>Municipal authority</i>	Political decision-making and funding allocation
District	District authorities <i>Local authority</i>	Political authority to represent local needs and interests for each district.
National	MÁV-HÉV <i>Rail operator (part of state railway company)</i>	MÁV-HÉV operates special suburban railways, which earlier belonged to BKV. MÁV-HÉV is part of MÁV (Hungarian State Railway). Ministry for Innovation and Technology orders the service of MÁV-HÉV lines. BKK and MÁV-HÉV cooperate with each other in timetable and ticket system.
National	Nemzeti Közlekedési Hatóság (NKH) / National Transport Authority <i>Government authority</i>	Responsible for land, air and sea transport in Hungary.
National	Közlekedésbiztonsági Szervezetet (KBSZ) / Transportation Safety Bureau <i>Government authority</i>	Responsible for investigating air, rail, sea accidents

3.2 Political context

3.2.1 National

At the national level, Hungary was led by Fidesz-Hungarian Civic Alliance, a right-wing populist political party, for most of the 2000s. In 2002 and 2006, this majority was lost to a coalition led by the social-democratic Hungarian Socialist Party (MSZP), who are usually the main opposition to Fidesz. In recent years, MSZP lost much of their support and Fidesz has led the government since 2010, with current prime minister Viktor Orbán. The next parliamentary elections are scheduled for 2022.

3.2.2 Local

From 1990 to 2010, Budapest's mayors were from the Alliance of Free Democrats – Hungarian Liberal Party (centre party) which was dissolved in 2013. Independent candidate István Tarlós, supported by Fidesz, was elected mayor in 2010 and has held the position since then. Within the General Assembly in Budapest, the Hungarian Socialist Party held a majority until 2006, when it was lost to Fidesz, who have gradually increased their majority since then. The next local election will take place in October 2019.

4 Transport and urban development vision and policy objectives

Transport planning in Budapest has seen a paradigm shift over the past 10-15 years, with support from local planning professionals to develop strong design standards and improve the quality of urban spaces. While the city centre had mainly underground crossings ten years ago, pedestrians can now use surface-level crossings as well as cycle paths on the road corridor. Budapest has reasonably high public transport mode share, with 45% of trips by public transport, 35% by car, 18% walking and 2% cycling in 2014. By 2030, the city's aims for 50% of trips by public transport, 20% by car, 20% walking and 10% cycling (Budapest Mobility Plan, 2014: 29). Beyond the municipality's borders, the use of private cars across the wider metropolitan area is significantly higher, up to 60-70% (Civitas, n.d). Most of the road and rail network is laid out in radial pattern, leading into Budapest from outer suburbs and regional areas. Public transport networks are more developed and accessible in the city and neighbouring suburbs, with five suburban rail lines, as well as trams, trolleybuses, bus services, river boats and bike sharing schemes (Ilés and Molnár-Szipai, 2016).

Mayoral elections are a key point in the political cycle when transport projects are conceived and promoted to the public. The upcoming election in October 2019 means that there is uncertainty over which projects are likely to proceed, as it will depend on the election results and the city's mayor. In Budapest, the public's expectations for transport are also influenced by non-governmental groups. Cycling associations such as the Hungarian Cyclists' Club and the Hungarian Cycling Federation are well-established and campaign strongly to defend their interests. Alongside campaigns, they provide feedback on planned projects and are one of the key stakeholders included in consultations. In addition, there are groups representing motorists interests, but they are less vocal in the public debates.

Budapest had a well-developed, inexpensive public transport system in the 1970-1980s, used by 70-80% of the population. Despite this strong history of public transport provision, the network deteriorated in the late 1990s and early 2000s. A 2014 survey showed that local residents were dissatisfied with the quality of public transport (Puhe and Schippl, 2014), and since then the mayor István Tarlós has led major renovations of the public transport network and street spaces. Car ownership in Budapest has also increased substantially since the democratic transition in 1989, when only 20% of residents owned a car (Lesley, 1989).

During the planning process, there are a lot of conflicts between different road users, who would all like to increase the amount of space allocated to them - including the car, cyclist and pedestrian lobbies. Hungarian Cyclists Club (Magyar Kerékpárosklub, MK), the Clean Air Action Group (Levegő Munkacsoport), Hungarian Car Club (Magyar Autóklub) and Járókelők. In the past, public consultations weren't a part of transport planning - but now that they are, BKK often have to negotiate the needs and preferences of different users. During the planning and design process, BKK, Budapest Public Road (Budapest Közút), City of Budapest Urban Planner Ltd. (Municipality company for strategic projects), Centre of Prioritised Government Projects and the District must co-ordinate. Districts take differing positions on road space reallocation: since cars and trams share space, the scheduling of tram services during peak hour has a significant impact on traffic congestion. Hungary has transport design standards for road and rail, developed by an association sponsored by the Ministry of Innovation and Technology. However, in the Budapest context, there is typically not enough space within the existing street corridors to meet these standards, and so technical standards are often relaxed. Heritage issues are a major issue in the city, and landscape planners and urban designers are often involved in the process of reallocating space, for heritage and sustainable urban spaces.

4.1.1 Vision for transport and urban development

Transport is a key area of development to support overarching urban development goals, specifically to improve the competitiveness of the city and its region, contributing to “establishing a sustainable, liveable, attractive and healthy urban environment” (BKK, 2014). The vision for transport and urban development in Budapest is set out in the Budapest Mobility Plan 2014-2030 (ibid.). The specific objectives for transport development are summarised in Table 2, below.

Table 2: Objectives for transport development, Budapest Mobility Plan 2014-2030 (BKK, 2014)

Objective	Transport interventions
Liveable urban environment	Transport development, integrated into urban development by influencing transport needs and mode selection, reducing environmental pollution and enhancing equal opportunities
Safe, reliable and dynamic transport	Integrated development of transport modes through efficient organisation, stable financing and target-oriented development

5 Road space re-allocation: new demands and barriers to co-ordination

This section summarises the findings of preliminary surveys and stakeholder workshops conducted with representatives from key local, metropolitan and national organisations responsible for the governance, planning, investment and regulation of road space.

First it explains the institutional and organisational arrangements for road space reallocation, and the new demands for more diverse uses of road space. Second, it discusses barriers to co-ordination across different institutions.

5.1 What are the new demands for, and challenges with, alternative or more diverse street uses?

New demands for more diverse street use in Budapest are mostly concentrated in the city centre and inner suburbs. Until the mid-1990s, urban development in Budapest was car-oriented and road space allocation favoured private vehicles. While growth is now concentrated in the city's inner areas, the relative dominance of private car travel continues to put pressure on road space allocation to accommodate car traffic. The Rákóczi corridor, selected for the MORE project, reflects these challenges. The route creates a key east-west link in the city centre, accommodating public transport routes as well as significant car traffic flows.

5.1.1 Centralisation of growth to the city centre

Residential and commercial redevelopments in the city centre have re-centralised the city's population and commercial activities, leading to strong growth in the number of people using the city streets for recreation and commuting to work. These users demand greater safety and amenity from road spaces, however this is in tension with ongoing pressures to accommodate private car traffic. The redevelopment of Budafoki út (Budafoki Street) in the 11th district demonstrates these new pressures, as local residents and their political representatives in the district push strongly to limit the traffic speed and disruptive impacts along the residential street.

5.1.2 Growth of tourism and new forms of shared mobility

Alongside demands from residents, the strong growth of tourism in Budapest has also put pressure on road space in the city centre, particularly in the evenings. Tourist activities are largely based in the city centre, and tourists primarily rely on public transport and micro-mobility (such as e-scooters) to travel in the city. New micro-mobility services, in particular,

create more competition for road space. There is uncertainty about whether they are supposed to be used, and the safety risks of motorised micro-mobility services.

5.2 How have these demands been addressed so far, during planning and implementation stages?

5.2.1 Redevelopment of major traffic junctions and public squares

To address these demands, BKK have implemented in a range of schemes to retrofit road spaces to better accommodate walking, cycling, and public transport. To-date, these schemes to redevelop road spaces have not been comprehensively implemented, but completed in some parts of the city where there is political support and strong pressures to improve road safety or better accommodate pedestrians. For example, the Heart of Budapest programme (2007-2012) implemented traffic-calming measures across the historic centre of Budapest. The planned redevelopment of Blaha Lujza Square, shown in Figure 1, will expand the space for pedestrians, introduce more green spaces and reduce the capacity given to private vehicles on the road corridors surrounding the square.



Figure 1. Planned renovation of Blaha Lujza Square, Budapest (Image: Budapest.hu)

5.2.2 Comprehensive transport network modelling

A 'macro model' for transport in Budapest was finished in 2015, which allows better modelling of the impacts of transport schemes, acknowledging the impacts on traffic flow and trade-offs between different modes. This model has been used specifically for feasibility studies, to provide a more comprehensive evidence base to compare different options. The second mobility plan was programmed with the support of this tool to evaluate around 60 different projects. Making the model available to different actors responsible for transport planning was also useful to support decision-making and prioritisation of various schemes.

5.3 Barriers to co-ordination

Efforts to re-allocate road space require co-ordination across institutions and their respective processes, which can be challenging where institutions are fragmented across different

sectors and spatial scales. Co-ordination is a challenging task for policy. It requires that adjustments are made for sets of decisions so that the negative consequences of any single decision for other decisions are avoided, counterbalanced, outweighed or reduced (Lindblom, 1965). Barriers to policy coordination arise for a range of reasons, including specialisation of tasks, power relations, performance management, beliefs and ideologies, politics, accountability, and incentives for organisations to protect their own ‘turf’ in terms of budgets, policies or staff (Peters, 2018).

Drawing on workshop activities and desk analysis, three key institutional and organisational barriers were identified.

5.3.1 Tensions between objectives across different institutions

Governance and control of road space allocation is fragmented across different institutions, including the municipality, districts, BKK, Budapest Public Roads, private contractors and the central government. As a result, co-ordination across organisations to reallocate road space is difficult given the differing objectives. Sometimes this relates to the overarching goals and purpose of each organisation, and other times it relates to their ways of working, specific processes and time scales. For example, considerable co-ordination is required across the municipality, BKK, and contractors responsible for design and construction, to ensure that political and planning decisions are made in a timely manner, and enough information is shared to allow external contractors to meet deadlines and consult with other stakeholders. Where the municipality’s goals for the overall transport network performance, and the districts’ goals related to local needs and interests, are tension - it creates a risk of slowing down the process and impacting on the implementation of new schemes.

Additionally, this fragmentation means that different projects are led by different organisations, depending on who has control over the specific area to be redeveloped. Very local schemes may be led by districts, or the municipality if they own the streets. The issue of ownership and control influences the types of reallocation schemes that are implemented, since organisations tend towards ‘easier’ schemes where there are lower requirements to co-ordinate with other institutions. Further to this, the institutional objectives tend to cause decision-makers to think in terms of individual projects, instead of strategy. Political support is mobilised at the level of individual projects, and sometimes new schemes may be driven strongly as a political project, even where they do not align well with the overall strategy. For example, the central government is continuing to promote the set of projects planned as part of Budapest’s unsuccessful bid for the 2024 Olympic games, in 2017. These projects focus on redeveloping specific areas of the city, and don’t necessarily align with the vision and priorities of the Budapest Mobility Plan.

5.3.2 Divergent views on the right way to solve transport problems

Across the different institutional actors influencing road space reallocation, there are distinct differences in viewpoints on private vehicle and the right solution to solve Budapest’s transport challenges. While these are partly related to institutional scale and objectives, as discussed in the previous paragraphs, they also derive from ideological views on whether private vehicle travel should be prioritised and accommodated as the dominant mode of

transport. For road space reallocation, the different ideological viewpoints are a major barrier to co-ordination because they advocate for solutions that are directly opposed. Those who want to accommodate private cars and target free-flow traffic, propose solutions that expand road space for cars and limit provision for other modes and activities. Conversely, those who see private cars as a part of the problem, seek to address transport problems by reducing their priority and allocation of road space, to encourage modal shift to public transport, walking or cycling. Because these differences influence individuals' understanding of what the problems are, and how they could be solved, it is a particularly strong barrier to co-ordination to decide on the way that road space might be reallocated. Linked to this, many of the proposed transport solutions carry an underlying assumption that improvements to transport accessibility will further centralise the city's population and economic activities in the centre, since schemes usually focus on improving access to the centre, as well as connectivity within the city centre.

5.3.3 Centralisation of power undermines the decision-making authority of actors outside political office

The last major barrier to co-ordination across institutions relates to political power and the centralisation of power to the municipality. This centralisation has strengthened political officials' control over transport across the past six years, and first arose after difficulties in the relationship between the municipality and BKK. While new appointments have improved the relationship between the organisations, there is still a power imbalance and BKK has been divided into two with the separation of Budapest Public Roads, responsible for road operation and management. The creation of the Public Development Council (PDC) in 2018 also concentrates decision-making with elected officials. The PDC was created from a pact between the Prime Minister Viktor Orbán and Mayor István Tarlós, to improve cooperation between the municipality and the central government. The Mayor and the Prime Minister are joint heads of the council, which will focus on joint projects to improve the city's liveability and safety, emphasising the city's role in nation-building for Hungary (Varga, 2018).

Table 3, below, summarises the institutional and organisational barriers, categorised by Hood's (1986) typology of governing resources.

Table 3: Summary of barriers to co-ordination to reallocate road space

Institutional and organisational barriers to road space reallocation			
Policy resource	Differing organisational objectives undermine collective goals	Underpinning philosophies on the goals of transport investment differs across actors	Centralisation of power undermines the authority of actors outside political office
Organisation <i>Physical ability to act directly; limiting factor is capacity</i>		Technical planning and design processes are oriented to divergent purposes - many projects favour spatial centralisation while others seek to improve access at the local scale	Restructuring of BKK to limit their decision-making authority divided the organisation into two; one focused on transport planning and provision, the other on road operation and maintenance.
Authority <i>Legal or official ability to determine; limiting factor is legal standing</i>	Fragmented 'ownership' of projects, depending on who owns the road corridor, means that each organisation favour projects on their own property.		Authority over road corridors is separated between different organisations, creating barriers to co-ordinated decision-making
Financial <i>Ability to exchange, limited by solvency</i>			
Informational <i>Ability to traffic information - figureheadness and having the whole picture. Limited by credibility.</i>	Difficulties of timely data and information sharing across the municipality, BKK and contractors, limits co-ordination.		

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 - BKK Centre for Budapest Transport
 - Budapest Public Roads
 - Budapest Transport Plc.
 - City of Budapest Urban Planner Plc.
 - 11th District of Budapest
 - Urban Transport Planning Company
 - Centre for Economic and Regional Studies HAS Institute of World Economics
 - Hungarian Cyclists' Club

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- BKK, 10/1/2019
- Budapest meeting, 07/05/2019

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City portrait: Constanța

Annex to D2.1 report

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1 List of abbreviations

ANSRC - National Regulatory Authority for Community Utilities Services
ARR - Romanian Road Authority
ALDE – Alliance of Liberals and Democrats Party
EBRD – European Bank for Reconstruction and Development
EU – European Union
GDP – Gross Domestic Product
GUP - General Urban Plan
INS – National Institute of Statistics
ISCTR - State Inspectorate for Road Traffic Control
IUDP - Integrated Urban Development Plan
IUDS - Integrated Urban Development Strategy
MDRAP - Ministry of Regional Development and Public Administration
MT - Ministry of Transport
NGO – Non-governmental organization
PD - Democrat Party
PDL – Democrat Liberal Party
PDSR - Social Democrat Party of Romania (currently existing as PSD)
PMC – Constanța Municipality / Primaria Municipiului Constanța
PNL – Liberal National Party
POR 2014-2020 - Regional Operational Programme for the 2014 – 2020 period
PSD - Social Democrat Party
RATC – Constanța Public transport operator
SUMP - Sustainable Urban Mobility Plan
ZMC - Constanța Metropolitan Area
ZUP - Zonal Urban Plan

2 Summary findings

Road space reallocation is a major focus for the local government in Constanța, with a range of policy initiatives underway to improve the provision for walking, cycling and transport on major corridors. The city's growth and spatial expansion across recent decades has created a challenging environment to encourage a shift away from private car use. In particular, the city's population has dispersed substantially to outer suburbs as it grew, and the rapid growth in private vehicle ownership after the political transition in 1989. Additionally, the local port traffic and summer tourist populations are key economic activities. These place additional demands on road space to cater for diverse types of activity, and large fluctuations in travel demand across the year. The key challenges to reallocating road space in Constanța are encouraging changes in travel behaviour, and developing comprehensive, analysis of the city's transport network, integrated across modes. At present, these challenges are being addressed through the development of new public transport routes, pedestrianisation of central areas and a new parking strategy for the city. The city faces several institutional and organisational barriers to co-ordination, to deliver on goals to reallocate road space and support travel by walking, cycling and public transport. First, data collection and sharing across organisations is currently inadequate to support co-ordinated planning and decision-making. Second, the regulatory standards for road space allocation, specifically technical design norms, need to be update to accommodate new approaches to corridor design and road space allocation.

3 Background context: history and economic change

Constanța is a city of 316,000 (ZMC, 2017) in Romania's South-East Development Region. As Romania's second-largest economic centre after Bucharest, Constanța County has one of the highest GDPs in the country, reaching approximately €7,620 million¹ in 2016 (INS, 2019). Constanța is the major port city on the Black Sea, with the fourth largest port in Europe. The local economy is dominated by oil production, tourism, ship building, retail and real estate. Tourism is particularly prominent in the summer, when the population of the metropolitan area grows with an additional 1,000,000 people, both tourists and temporary employees (ZMC, 2017).

The city's growth patterns have evolved over recent decades. Until 1990, the largest source of population growth was in-migration to the metropolitan area, concentrated in Constanța Municipality. This was stimulated by economic development around the port, tourism and construction sectors. Since the 1989 Revolution, internal in-migration to the city centre has fallen dramatically. From 2002 onward, the metropolitan area continued to grow, but the population of Constanța Municipality has decreased, as residents shift to peripheral areas (ZMC, 2017).

Preliminary desktop research and surveys established the local context for Constanța, covering politics, urban development, transport and local governance arrangements.

4 Governance and political dynamics

Responsibilities for territorial governance are distributed between local, county, and port authorities. Constanța Municipality is responsible for the city administrative territory, the Port Authority is responsible for the port territory, which includes Constanța city and additional localities, and the County Council is responsible for the county territory. These institutions fall under different jurisdictions: Constanța Municipality and the County Council are autonomous institutions governed by elected representatives, while the port is under the Ministry of Transport (MT) authority. This division of responsibilities often results in a lack of cooperation at local level between the city and port administrations. Furthermore, the Municipality and county administrations have a strong cooperation with the Ministry of Regional Development and Public Administration (MDRAP) and many of the local policies are a joint result of both local needs and national programmes, as MDRAP manages most funds dedicated to urban development.

¹ RON 34,400 million

4.1 Institutional and organisational arrangements

The City of Constanța is governed by the Municipal Council, the deliberative body, with 27 elected councillors and the Mayor as the executive body. The city is also the administrative centre for Constanța County. Table 1, below, summarises the institutions responsible for road space allocation through transport planning, provision of transport and police services, regulation of road spaces and allocation of budgets.

Table 1: Institutional and organisational arrangements for road space allocation in Constanța

Jurisdictional scale	Institution	Organisation type	Responsibilities
Municipal	Constanța Municipality/ Primaria Municipiului Constanța (PMC)	Local administration	Establishing local policies, developing, implementing and financing street allocation projects, under the principle of local autonomy.
Municipal	Constanța Local Police Division / Directia Politia Locala Constanța	Local police authority, department in PMC	Preventing irresponsible pedestrian behaviour, parking issues, vehicle weight limits and other local traffic regulations.
Municipal	Constanța Public transport operator/ Regia Autonoma de Transport in Comun Constanța (RATC)	Local public transport provider (bus services), publicly owned company governed by the Local Council.	Provide approximately 80% of public transport services in Constanța (PMC, 2015).
Metropolitan area	Constanța Metropolitan Area / Zona Metropolitana Constanța (ZMC)	Partnership of municipal authorities	Coordination of the regional development activities for the Constanța Growth Pole (the 16 municipalities included in ZMC)
County	Constanța County Council / Consiliul Judetean Constanța	County council	Governance at the county level and coordination of the activities of the commune's /city's / municipality's councils in order to provide county-interest public services.
Regional	Regional Development Agency for the South-East Region / Agenția pentru Dezvoltare Regională Sud-Est	NGO of public utility	Coordination of development projects and management of funding mechanisms at regional level. Cooperation with local authorities in preparing development strategies and

			funding applications for public investments.
National	Romanian Police / Politia Romana	National police authority	Road Directorate responsible for road safety enforcement, collecting collision data and identifying safety issues
National	National Regulatory Authority for Community Utilities Services / Autoritatea Nationala de Reglementare Pentru Serviciile Comunitare de Utilitati Publice (ANSRC)	Regulatory authority for public utilities, within MDRP	Regulate and monitor community services and public utilities
National	Ministry of Transport / Ministerul Transporturilor (MT)	Government ministry	Developing legislative framework for transport; development strategies, policies and programmes
National	Ministry of Regional Development and Public Administration / Ministerul Dezvoltarii Regionale si Administratiei Publice (MDRAP)	Government ministry	Carry out government policies for regional development, public administration and spatial development.
National	Romanian Road Authority / Autoritatea Rutieră Română (ARR)	Road authority	Licensing road transport operators
National	State Inspectorate for Road Traffic Control / Inspectoratul de Stat pentru Controlul in Transportul Rutier (ISCTR)	Technical body within the Ministry of Transport	Inspection and control of road transport activities, focusing on road safety, environmental protection, technical condition of road vehicles
National	Constanța Port (owned by Compania Națională Administrația Porturilor Maritime Constanța)	Port authority for Romanian ports (Constanța, Midia, Mangalia, Tomis Marina) under the authority of Transport Ministry	Operation of Constanța Port

Constanța is one of the seven largest cities in the country, excluding the capital Bucharest, and is the major economic pole in the South-East Development Region. Therefore, after

Romania's accession to the European Union in 2007, a national priority was to strengthen the regional poles, i.e. growth poles. This approach meant that urban development for Constanța was going to be planned at the growth-pole level, formed by Constanța city and adjacent localities, and there was a need for a "metropolitan" association.

The wider metropolitan area, beyond Constanța Municipality, consists of sixteen territorial jurisdictions and a total population of 492,000 (ZMC, 2017). Constanța Metropolitan Area (Zona Metropolitană Constanța, ZMC) was formed in 2007, based on a voluntary agreement between territorial administrative units. This takes the form of an Intercommunity Development Association (Asociație de Dezvoltare Intercomunitară), a non-governmental organisation focused on enabling the sustainable development of the metropolitan area through joint service provision or development projects. This institution was also beneficial to access EU Structural Funds for integrated infrastructure projects (ZMC, 2017). Metropolitan areas in Romania do not have administrative powers over the territory, but mostly facilitate the integration and cooperation between different localities and the main urban centre.

An additional institution, the Regional Development Agency for the South-East Region, an NGO of public utility, operates at regional level and represents the interface between local and central government. The institution does not have administrative prerogatives at regional level, but coordinates regional development projects by providing eligibility verifications for structural funds projects and supporting local governments in the region (including Constanța growth pole) in accessing EU funds for urban development, including urban mobility, and providing eligibility verifications for structural funds projects.

4.2 Political context

3.2.1 Local level

Constanța has been governed by the left-leaning Social Democrat Party (PSD) since the 1990s, with long-standing mayor Radu Mazăre (2000-2015) and the actual mayor, Decebal Făgădău (2015 to present) (Pandelea & Mieczkowski, 2015).

Radu Mazăre was elected in 2000 as an independent candidate (38,11% in the first round and 64,83% in the second round), joining PSD in 2003 and being re-elected with comfortable majorities in 2004 (56,46% in the first round), 2008 (68,65% in the first round), and 2012 (62,76% in the first round). Decebal Făgădău, also from PSD, acted as an interim mayor from 2015, when Radu Mazare quitted the office. Decebal Fagadau has been re-elected in the 2016 local elections (41,96%, this time the winner being the actual winner of the first round, following a legislative change). During most of this period, President of the County Council was Nicușor Constantinescu, elected in 2000 as an independent in the Local Council, then becoming a member of the County Council in 2004 as a member of PSD and being elected as President of the County Council three times (in 2004, 2008, and 2012). At least starting from 2004, PSD had comfortable majorities both in the Local Council and in the County Council, with just a weak majority in the Local Council starting from 2016.

The current situation for Constanța is as follows: Decebal Făgădău from PSD is the Mayor, having only a weak majority in the Local Council; Horia Marius Țuțuiianu, also from PSD, is the President of the County Council, having a majority in the County Council together with

the Liberal-Democrats from ALDE. The government is controlled by PSD, with a majority in the Parliament together with ALDE, with Viorica Dăncilă as Prime Minister. The current president, Klaus Iohannis, comes from the opposition party, PNL (after 2014, a merge of previous PNL and PDL).

3.2.2 National level

At the national level, the situation was more diverse. The Government was controlled by PDSR/PSD during the 2000-2004 period (with Adrian Năstase as Prime Minister). Traian Băsescu, a native of Constanța, supported by an alliance of the Liberal National Party (PNL) and the Democratic Party (PD), won the 2004 presidential elections against the former Prime Minister Adrian Năstase. As a result, a majority controlled by PNL and PD assumed the Government during 2004-2008 (with Călin Popescu-Tăriceanu as Prime Minister). Following a split of the PNL-PD alliance, the next Government was controlled by PDL – a merge of PD and PLD, a breakaway group from PNL – during 2008-2012 (with Emil Boc and Mihai-Răzvan Ungureanu as prime-ministers), followed by a Government controlled by the Social Liberal Union – a political alliance of PSD and PNL, mainly in opposition with President Băsescu – during 2012-2015 (with Victor Ponta as Prime Minister) and an independent Government between 2015-2017 (with Dacian Cioloș as Prime Minister).

MAIN STAKEHOLDERS WITH RESPONSIBILITIES FOR TERRITORIAL PLANNING AND ADMINISTRATION

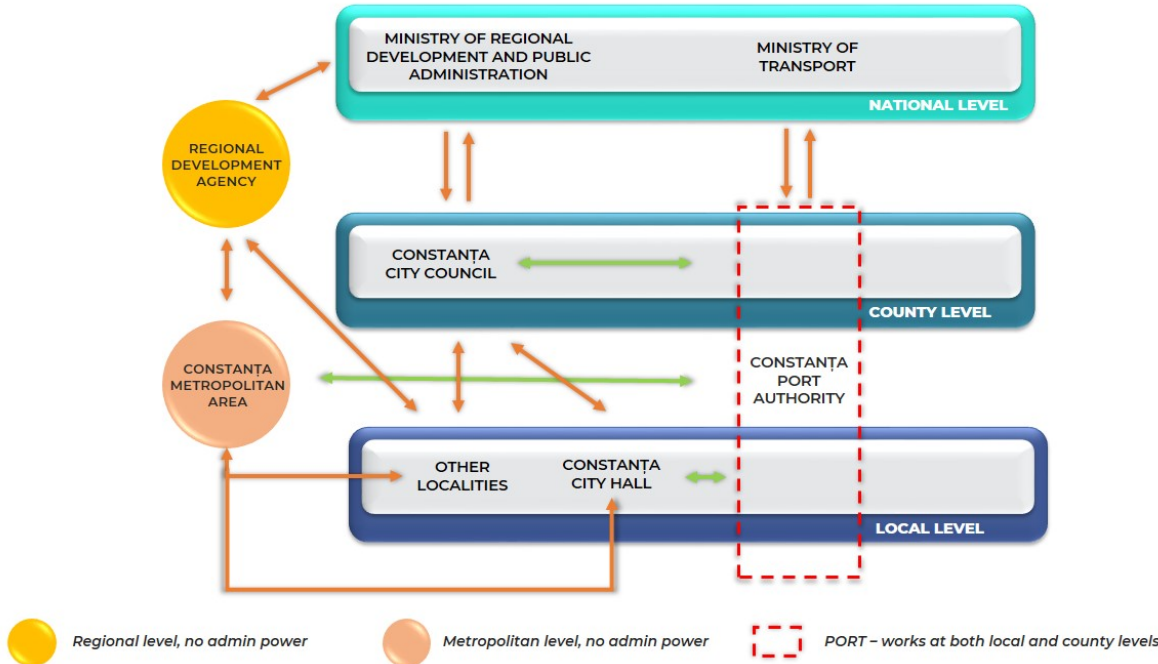


Figure 1: Main stakeholders with responsibilities for territorial planning and administration (Source: Constanța Municipality)

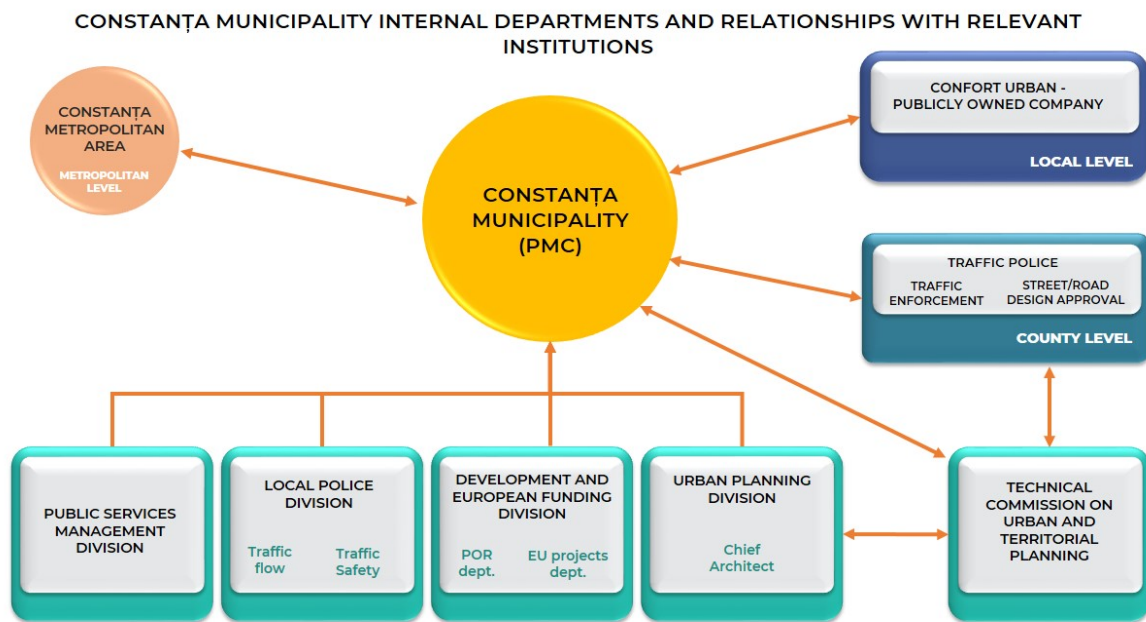


Figure 2: Constanța Municipality internal departments and relationships with relevant institutions (Source: Constanța Municipality)

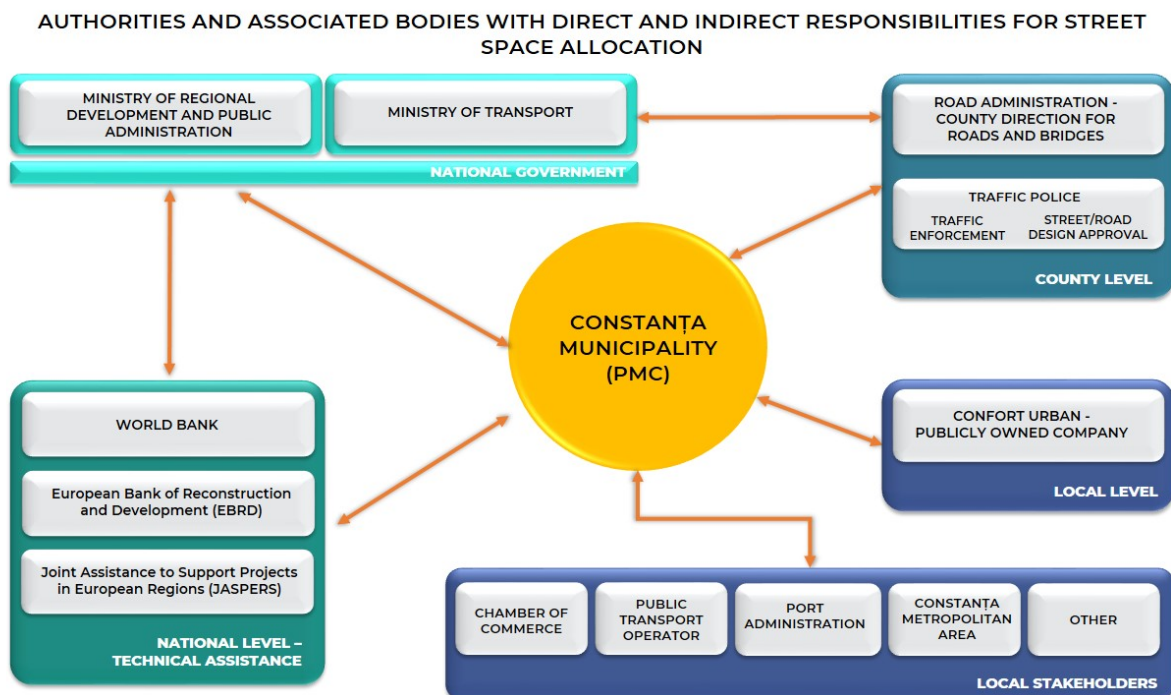


Figure 3: Authorities and associated bodies with direct and indirect responsibilities for street space allocation (Source: Constanța Municipality)

5 Transport and urban development vision and policy objectives

5.1 Transport

Constanța has a rapidly increasing vehicle ownership, with 343 cars per 1,000 inhabitants in 2017. This has increased substantially in recent years, from 151 per 1,000 inhabitants in 2002, to 224 per 1,000 inhabitants in 2014 and the current SUMP forecasts further growth to 516 per 1,000 inhabitants by 2030 (PMC, 2015). The accelerated increase of the car ownership in the 2014-2017 period is mainly the result of national car-oriented policies. Travel mode share comprises 36.5% private vehicle travel, 36.5% public transport, 26% walking and 1% cycling (PMC, 2015). The traffic fatality rate is 1.46 per 10,000 people.

Historically, Constanța operated tram and trolleybus services, however these stopped operating in 2008 (PMC, 2015). Approximately 60 bus services operated by the County Council terminate in the city of Constanța, most of them arriving at the two bus stations near the main train station or at the Tomis bus station (PMC, 2015).

Taxi services in Constanța are regulated, with a policy of four permits per 1,000 inhabitants (PMC, 2015), resulting in 1,720 permits issued in 2015. There are no seasonal adjustments to these authorisations. 611 taxi providers operate in Constanța and only ten of these have more than ten vehicles (the largest has 60 vehicles). The city has a significant number of unauthorised taxi services and, while the road police is responsible for enforcing the legislation (2003 Taxi Operators Act, updated several times), it is very difficult to identify illegal taxi operators (PMC, 2015).

A 2015 review of traffic and public transport in Constanța (PMC, 2015) identified the following challenges:

- public transport facilities are of low quality and do not have information boards in stations;
- bus station infrastructure does not support safe boarding for the elderly, disabled, or parents with strollers (although the local operator RATC has low-floor buses);
- following the abandonment of tram and trolleybus services in 2008, Constanța lacks electric transport services and the bus fleet are Euro standards II-IV; electric buses were tested in 2015 by RATC;
- integration between rail, bus and taxi services could be improved at the main railway station;
- there are no measures to prioritise public transport traffic;
- ticketing systems are outdated;
- no park-and-ride facilities are available to accommodate seasonal traffic growth in summer;
- bus stations do not have real-time display boards;
- excessive congestion over the summer period has a negative impact on tourism.

The 2015 SUMP sets the following vision for Constanța Growth Pole: “Achieve an efficient, integrated, sustainable and safe transport system, which supports the economic, social and

territorial development and ensures a good quality of life in the Constanța Growth Pole”. This vision is achieved through five strategic objectives: (i) Accessibility, (ii) Safety and Security, (iii) Environment, (iv) Economic Efficiency and (v) Quality of Urban Environment (PMC, 2015), which are further detailed into projects, some being currently under implementation.

Freight movement in the Constanța Growth Pole is significant, due to its location on the TEN-T network and to the strategic importance of Constanța Port, both at national and European level. Despite the size and importance of the Port, logistics infrastructure is insufficient: specifically, there is not enough space in existing terminals and key commercial and industrial areas are difficult to access due to the structure and design of intersections (PMC, 2015).

The major planning document for the port area is the Constanța Port Master Plan (CN APMC, 2015), which presents the strategic planning on the long, medium and long term (2020, 2021-2030 and 2031-2040). The Master Plan focuses on projects within the territory of the port, designed to improve port operations and infrastructure. In terms of road space re-allocation, the projects are focused on increasing traffic capacity of roads and creating additional parking areas for heavy vehicles.

The Port Master Plan and the SUMP have been developed in roughly the same time period (i.e. 2014-2016) as two distinct strategies, without integrating relevant measures. As part of CIVITAS PORTIS, the two strategies were analysed jointly, with the purpose of obtaining an integrated vision regarding the sustainable development of the city and port area. Furthermore, the two institutions worked together and jointly decided upon several projects which impact both territories and proceeded to cooperate for their implementation during the CIVITAS project.



Figure 4. Constanța Port (Source: Constanța Port)

5.2 Urban development

Romania's spatial planning system has been heavily influenced by the European Union policies over recent decades. In particular, the growth pole concept is used to identify the boundaries of metropolitan areas and in turn to allocate investment spending (Benedek & Cristea, 2014).



Figure 5. View of Constanța (Source: Constanța Municipality)

As elsewhere, urban development is supported by urban regulation and planning instruments. The main regulatory document for land use in the city is the General Urban Plan (GUP, Plan Urbanistic General), developed only for the administrative territory of Constanța Municipality. The GUP contains all land use related regulation for mobility, civil construction, economic and financial strategies, future projects. The General Urban Plan is used by authorities and the private sector to indicate which projects are going ahead and the conditions they should comply with, which areas will be developed as industrial or business areas, and so on. The plan should be updated every 10 years. As this is not happening due to limited repercussion for failing to update the plans before they expire, the MDRAP recognises the validity of the existing plans. The MDRAP supports cities by providing formal approval for each GUP update. The Constanța GUP was last updated in 2000 and the municipality is currently in the process of developing the terms of reference for a new GUP, with technical assistance from the World Bank. In all cities, the GUP can be amended by Zonal Urban Plans (ZUP, Plan Urbanistic Zonal). These lower level plans only focus on a limited area and are needed for large developments or those that require amendments from the GUP. These plans are verified and approved by technical commissions within the municipality.

Starting with 2007 - when Romania joined EU - several planning documents were developed for the Constanța growth pole, all of which were a prerequisite condition of eligibility for European funding:

- The Integrated Urban Development Plan (IUDP, Plan Integrat de Dezvoltare Urbană) was the main urban development planning document for the 2007-2013 funding

period, addressing economic, social, touristic and transport development of the city in an integrated manner.

- The Integrated Urban Development Strategy (IUDS, Strategie Integrată de Dezvoltare Urbană) is the main urban development planning document for the 2014-2020 funding period and represents an upgrade of the 2007-2013 IUDP.
- The Sustainable Urban Mobility Plan / SUMP (Plan de Mobilitate Urbană Durabilă, PMUD) was introduced for the 2014-2020 funding period as a planning document exclusively dedicated to mobility and it had to be integrated with the wider urban strategy (i.e. IUDS). The SUMP became part of the planning documents required by the national legislation, being envisioned also as an integral part of the GUP. It is still early to tell how this integration works in practice as so far the two planning documents for Constanța, as for most municipalities in Romania, were developed for different timeframes.

All the planning documents listed above consider the city's development as presented by official documents, i.e. land use as presented by the GUP from 2000, currently in force. An updated land use development pattern for Constanța could not be identified, as the GUP has not been updated since 2000 and there is no updated image of current land use in the city (i.e. integration of the GUP with all derogatory ZUPs approved since then).

6 Road space re-allocation: new demands and barriers to co-ordination

This section summarises the findings of preliminary surveys and stakeholder workshops conducted with representatives from key local, metropolitan and national organisations responsible for the governance, planning, investment and regulation of road space.

First it explains the new demands for more diverse uses of road space. Second, it discusses barriers to co-ordination across different institutions.

6.1 What are the new demands for, and challenges with, alternative or more diverse street uses?

6.1.1 Encouraging behaviour change

The biggest challenge is changing the behaviour of Constanța's citizens and tourists. A large share of the population uses their cars for personal mobility, which has negative impact on safety, pollution, and traffic congestion. Until the development of the SUMP, there was little in place to incentivise a shift to public transport or other sustainable modes. The mind-set and decision-making of residents is important: as families grow, they move to outer areas and commute to work in Constanța. Aside from work commute, these residents also use public services in the city, as commerce, education, and health services, and prefer to travel by car. With the disparate movements between where people live, work, or go to school, there is increased congestion, particularly at peak hours. Travel to school appears to have significant effects on city congestions, as level are lower during school breaks.

In various EU projects, Constanța Municipality, with support from other stakeholders (e.g. Constanța Metropolitan area and Port Administration), deployed consultation campaigns, which were successful in proving that people are ready to pay for public transport and willing to change their mobility behaviour. A recent online consultation, held as part of the PORTIS project, showed that younger generations are willing to leave their cars and use public transport. However, this behaviour change would only occur if public transport provision was good quality. Specifically, it needs to be safe, with appropriate infrastructure to ensure timetable accuracy, and users need to be recognised as equal participants in traffic.

Supporting behavioural change through engaging communication or awareness campaigns is a new practice in Constanța and the municipality is working on increasing its capacity and developing an integrated and coherent communication strategy for promoting and getting acceptance for mobility projects. This strategy should be supported by infrastructure projects, first providing attractive options for mobility and then increasing public awareness about them and their benefits. The municipality is working on mobility projects focused on promoting public transport and active mobility.

6.1.2 Comprehensive analysis of the city's transport system

The Constanța SUMP (PMC, 2015) represents a first attempt at an analysis of the entire mobility system – traffic data, users, modal share, infrastructure, safety issues, etc. – and solutions proposed to improve overall mobility in the growth pole. It is a first-generation SUMP, with aspects that could be improved with further measures and planning.

The SUMP is intended as a dynamic planning instrument, being the first time when transport modelling (software solution) is used for planning in Constanța. This generated the need for increased modelling capacities within the Constanța Municipality, which is being achieved both through local funds and involvement in Horizon 2020 projects. For example, part of Constanța's activities in CIVITAS PORTIS focuses on improving the transport model and local capacity to use the model for dynamic mobility planning. As this is a new instrument for the local level, not all stakeholders are aware of its benefits and potential to improve mobility and land-use planning, but progress is being made to increase this understanding and extend the utilization of the model.

6.2 How have these (new) demands been addressed so far, during planning and implementation stages?

6.2.1 Promoting strategic urban planning

The new demands have been addressed through the development of strategic urban and mobility plans and implementation of key project in the city.

The Integrated Urban Development Plan (IUDP) for Constanța growth pole was approved at metropolitan level and justified the need for urban refurbishments and transport infrastructure improvements in the 2007-2013 period. It led to several actions of pedestrianization in the city centre and restoration of pedestrian spaces in highly touristic areas, including limited cycling infrastructure. Projects for street modernization were also developed in this period, but focused mostly on improving the infrastructure, not reallocating road space.

The development of the Constanța SUMP and its approval at metropolitan level marked the beginning of a paradigm shift towards transport planning focused on people and fuelled the debate about road space reallocation in the city. The SUMP also provided a starting point to produce knowledge and build administrative capacity. Romania was the first country in the EU to implement these in the national legislation, providing an additional incentive for local authorities to create SUMP based on equity principles for all transport modes (i.e. public transport, cycling, walkability, car use). Such legislative changes were not mandatory but a firm decision of the Romanian government. This, combined with eligibility requirements for EU funding, incentivised cities, irrespective of their size, to develop a SUMP.

The national context concerning the development of SUMP is layered: the basis is the law (Law no. 350 / 2001, updated) and methodological norms for applying it (Order no. 233 / 2016), together providing a clear structure for the SUMP. Also, there are national regulations (i.e. technical norms and standards) concerning roads and construction works, traffic, parking, and other engineering and urban planning aspects that constrain the elaboration of SUMP. The main funding source preferred by local authorities for implementing SUMP projects is the Regional Operational Programme 2014-2020 (and even costs associated with the elaboration of the SUMP are eligible in the programme). An important layer for SUMP development comes from the eligibility criteria established for POR financing. The MDRAP created additional guides about this eligibility for the 2014-2020 period and the Regional Development Agencies directly support local authorities to achieve SUMP eligibility. Local authorities apply these and the regional development authority verifies the SUMP's conformity to the law and POR requirements.

At the local level, the SUMP development is based on increased integration and high cooperation between different stakeholders, who come together to produce the plan. It is intended to be updated periodically, so new generation SUMP are expected to bring more effective changes. EU regulations are given particular consideration, therefore the new SUMP guidelines due out by the end of 2019 will quite likely be taken on as well, possibly resulting in updated plans quicker than initially envisaged.

MDRAP represents the main supporter of urban development planning and constantly develops new ways to incentivise local authorities. Recently, the MDRAP had an initiative for providing funding for local governments to produce strategic plans, targeted particularly at those that do not have the resources, know-how, and capacity at the local level. Furthermore, training programmes for cities are organised mostly by the MDRAP or regional development agencies, and sometimes by European projects as those under the CIVITAS programme.

6.2.2 Development of new public transport routes

In implementing public policies (as new public transport routes or new regulations), local authorities can act in an efficient manner or things could linger, lacking efficient decision-making and implementation. In some cases the barriers can be removed through local action, in other cases national action is needed (as changing a law or a national regulation) and that takes longer.

Constanța Municipality is active in improving the mobility context at local level, being involved in several research projects (i.e. CIVITAS PORTIS, MORE) and preparing the implementation of major SUMP measures. As part of their equitable approach to mobility, Constanța set out to encourage the use of public transport and active modes, and is preparing the implementation of a street reallocation project on three main boulevards, expected to be finalized in approx. three years. This project focuses especially on creating dedicated public transport corridors, but also on improving the street space for active mobility. Aside from infrastructure, public transport is supported by increasing the vehicle fleet, both with Euro Diesel VI (104 new buses) and electric buses (41 new electric buses and 51 charging stations, 10 quick and 41 standard ones), leading to a higher quality of service. These projects are developed through a mix of funding from the local budget, POR, and an EBRD loan.

6.2.3 Redevelopment of streets into pedestrian areas in the city centre

There is limited debate of congestion charges for the city, as the administration is more interested in city centre pedestrianization, supporting leisure activities and increasing the liveability.

In Constanța, street reconversion to full pedestrianization started in the 2007-2013 POR funding period with several areas in the city centre, as established in the Integrated Urban Development Plan (IUDP). The city has set high ambitions in the IUDP and additional pedestrianization in the central area is expected in the following years. The measures have been included in the SUMP, and street reallocation was given a special interest in the Constanța's activities in the CIVITAS PORTIS project as well. Here, Constanța has one dedicated measure which sets out to prepare an inventory of current uses of road space together with a plan for reallocation of road space to promote safe, efficient, and environmentally friendly modes of transport. Additionally, with technical assistance from the World Bank, two guides are under development and they focus on providing recommendation for urban spaces refurbishment and appropriate types of intervention for touristic areas and high-density residential neighbourhoods.

Increasing the pedestrianised areas presented several difficulties, the most pressing being the citizens' mind-sets. Car use is on an ascending trend in Constanța, making parking an important issue for citizens. In order to have public acceptance for the city centre pedestrianization, the municipality developed parking infrastructure, including a multi-story facility. From previous experience, the citizens are initially reluctant to bold changes such as pedestrianization and it takes time to reach a good acceptance level, which is then followed by additional requests for pedestrianised spaces. With the current mind-set, a bold politician is needed to take the initial decision.

There are some challenges with implementing local strategies. The majority of funding used for implementation comes from European structural funds and only secondly from the local budget. As some projects might fail to qualify for European funding and are too ambitious for the local budget, they are not implemented or are postponed for future funding periods and included in updated strategies.

6.2.4 Parking supply, charging, and enforcement

Parking an important subject for Constanța's citizens and administration. Current parking supply is relatively high, 1 per 15-16 inhabitants. More, the majority of parking was free until recently and taxes for car owners very low. There is a need for policies to incentivise a decrease in car use, such as parking charges, reducing the supply of parking lots, improving public transport, and so on in order to make change happen. Implementing new charges on car users at the national level is very difficult as it takes political courage. The current national policies continue to support, actively or passively, the increase of car ownership and use. In most cases, municipalities and mayors are not challenging the status quo by putting this to the local political agenda. Parking policy is a really effective tool in regulating car use, but it is not used to this purpose. There is a recent national policy that made it mandatory for a city to have a parking policy in order to be able to attract funding for mobility projects through the Regional Operational Programme. However, the requirements for new parking policies are not defined and there is limited national expertise in developing such policies. As a result, the measure has not yet delivered the anticipated results.

Politics has an important role to lead improvements in public transport and reducing car dependency. In Romania, there is also a cultural dimension, as car ownership was difficult during the communist period, after 1989 it gradually became a symbol of status. This is predominantly the mind-set of older generations, as millennials tend to behave and travel differently.

However, in this challenging context, Constanța has made significant progress in developing the city's parking policy. The policy was elaborated by local experts within the PORTIS project framework, with ample public consultations. The Local Council formally approved the parking policy at the beginning of 2019. The parking policy has been development based on the more general SUMP vision, and it was designed according to the following principles: (i) Polluter pays; (ii) Law enforcement in the field of car parking, stationing and stopping; (iii) Promotion of sustainable urban mobility; and (iv) User information. The parking policy action plan proposes hard and soft measures that will be implemented on short, medium and long terms. The city territory was divided in three types of intervention areas and measures will be implemented progressively. One result of the engagement activities in developing the parking policy is an increased citizens' acceptance of the pedestrianization initiatives.

6.3 Barriers to co-ordination

Efforts to re-allocate road space require co-ordination across institutions and their respective processes, which can be challenging where institutions are fragmented across different sectors and spatial scales. The workshop activities identified four key institutional barriers to reallocating road space. These barriers result from a lack of policy *resources*, summarised in Table 2.

6.3.1 Data sharing and access across different organisations

A key challenge is that all the different organisations, both at the same territorial level (i.e. local) and at different territorial levels, have information and data on the streets under their responsibility. Higher-level authorities (county council, national authority, etc.) are mainly

focused on ensuring free-flow traffic on the roads they manage. However, Constanța Municipality is dealing with increasingly complex problems and issues involving pedestrians, cycling, public transport users, freight distribution and deliveries, and planning for these different user needs.

Collecting users' data in a systematic manner and correlating data from different stakeholders is a very recent approach in mobility planning in Romania; the first generation of SUMP's developed in the last five years is a first step, and both the practices and the practitioners are under development. Constanța is improving user and stakeholder involvement through the activities undertaken in CIVITAS PORTIS, by developing a city-wide awareness raising strategy, establishing a Mobility Forum for local stakeholders, initiating public consultation and sampling user acceptance of bold decisions (i.e. pedestrianisation).

6.3.2 Regulatory standards for new approaches to road space allocation

There is a number of national technical design norms and standards that have not been updated in recent years, and their update would imply changes of the national law and practice. The majority of norms for street design falls in this category making current design practices somewhat outdated.

Although many cities are introducing cycling lanes and/or paths, there is only an outdated and limited technical norm regulating how these should be built. The regulation does not provide recommendations or criteria for planning cycling infrastructures, only minimum design requirements. The norm is an active law and puts unrealistic constraints in building such infrastructure (as, for example, ensuring a 0.5 m protection of cycle paths from driving lanes, which in many cases is spatially impossible). That makes it rather a barrier than an enabler in the design and construction of cycling infrastructure. There is a recent interest from the MDRAP and a new regulation is under public consultations, but cycling infrastructure is being built at this very moment in many cities, with no design standards in place. Similarly, shared spaces are not recognised in traffic legislation and are seen as problematic for traffic safety. The debate for updating the traffic laws is generated periodically by the national police and represents the possibility to improve existing legislation with new mobility concepts.

Another regulatory barrier is the current procurement legislation and associated contracts for public works. The legislation generates a lengthy procedure for public acquisition and is restrictive to public authorities because the main selection criteria is the lowest price. Some applicants propose total project costs much lower than the municipality's evaluation and win the procurement procedure. The legislation takes into account the technical solution, as a prerequisite condition, but this is not weighted in for the final selection of applicants. This limits the local authority's ability to implement ambitious street designs and puts additional pressure on preparing comprehensive design requirements when initiating a public acquisition.

Table 2 summarises these institutional and organisational barriers, categorised by Hood's (1986) typology of governing resources.

Table 2: Institutional and organisational barriers to road space re-allocation in Constanța

Institutional and organisational barriers to road space reallocation		
Policy resource	Data sharing, access across different organisations	Regulatory standards for new approaches to road space allocation
Organisation <i>Physical ability to act directly; limiting factor is capacity</i>	Different institutions do not have common data platforms and knowledge-sharing systems to support shared access to different datasets	Regulatory standards for design and procurement create a large organisational burden, limiting the capacity to deliver a large number of projects
Authority <i>Legal or official ability to determine; limiting factor is legal standing</i>		Technical standards for reallocation schemes, such as cycle lanes and shared spaces, do not permit new approaches to road space allocation.
Financial <i>Ability to exchange, limited by solvency</i>		
Informational <i>Ability to traffic information - figureheadness and having the whole picture. Limited by credibility.</i>	The absence of data-sharing means that different organisations only have partial knowledge of how the transport network performs.	

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7.1.1 MORE Constanța Workshop, February 6, 2019

- 4 Facilitators from Sciences Po, University College London and European Integrated Projects
- Participants from the following organisations:
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 - Constanța Police Department, Traffic Police
 - Constanța County Directorate of Roads and Bridges (Investment, Design, Projects)
 - Constanța Port Authority
 - Autonomous Regie County Roads and Bridges
 - S.C. Confort Urban
 - Constanța Metropolitan Area

7.1.2 MORE Bucharest Workshop, February 7, 2019

- 2 Facilitators from Sciences Po and University College London
- Participants from the following organisations:
 - European Integrated Projects (EIP)
 - Bucharest-Ilfov Public Transport Metropolitan Authority
 - Ministry of Regional Development and Public Administration

7.1.3 MORE Paris Workshop, May 14, 2019

- 2 Facilitators from Sciences Po and University College London
- 2 participants from Constanța Municipality

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City portrait: Lisbon

Annex to D2.1 report

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1 Summary findings

Reallocating road space is a political priority in Lisbon, and in recent years the municipality have pro-actively encouraged residents and visitors to travel by public transport, walking and cycling, instead of private cars. Schemes to reallocate road space focus on regenerating public spaces, with a programme of public plaza redevelopments and new cycle lanes on major corridors. While recent schemes have been successful, many areas of the city remain dominated by private traffic. Challenges also arise from new demands on road space, including more complex travel patterns from the growing tourism activity, as well as disruptive mobility technologies. While Lisbon Municipal have authority over land-use planning and own much of the road infrastructure within their jurisdiction, efforts to re-allocate road space face two key barriers to co-ordination across different institutions. The municipality do not have the authority to regulate travel demand, particularly school zoning and company car regulations that have key impacts on travel patterns across the city. In addition to this, there is weak governance at the metropolitan level that limits their ability to resolve metropolitan-scale challenges for the transport network.

2 Background context: history and economic change

Lisbon is the capital of Portugal and one of the country's oldest cities. The city was historically a centre for trade and manufacturing, with a major port dating back to the 12th century. The metropolitan area is Portugal's major economic and population centre, with 27% of the country's population and 37% of GVA (Seixas et al., 2015).

Two key turning points influenced Lisbon's development: the end of the Salazar dictatorship in 1974 and accession to the European Union in 1986 (Lönnervall & Sundell, 2018). Prior to the 1970s, Portugal's population was largely rural. Economic activities focused on production for the domestic economy. The democratic revolution in 1974 led to economic modernisation, growth of the private sector and urbanisation (ibid.). From the 1970s onward, Lisbon's economy deindustrialised from its traditional manufacturing base and by 1991, 70% of the local economy had shifted to the services sector (Silva & Syrett, 2006). This period of deindustrialisation coincided with a redistribution in population across the region, with a large shift from a single city centre within Lisbon Municipality to a polycentric metropolitan area by 2000 (ibid.). This dispersion saw Lisbon Municipality's population fall by 500,000 between 1981 and 2008 (Oliveiro & Pino, 2010) as many residents relocated to new developments in the periphery of the metropolitan area. Population dispersion also influenced changes in the demographic composition, as younger populations shifted out to new areas, leaving behind a larger proportion of elderly residents. Accelerated investment in major infrastructure and urban development projects was enabled by accession to the European Union (EU) in 1986, which gave the Portuguese government access to EU Structural and Cohesion funds and loans from the European Investment Bank (Silva & Syrett, 2006). In 1998, Lisbon hosted Expo'98¹, which catalysed investment into transport infrastructures and public space redevelopment across the city, including Parque das Nações, Oriente Station (Gare do Oriente), the Lisbon Oceanarium and the Vasco de Gama Bridge (ibid.).

The global financial crisis and subsequent European debt crisis had a significant impact in Portugal. Between 2010-2015, Lisbon was hit by severe economic depression, and local government finances were restricted by austerity measures imposed by the Troika. Some of these measures, such as the public sector hiring freeze, continue to the present time. Alongside austerity budgets, the legislative changes from this period liberalised the housing sector to stimulate the real estate sector, in conjunction with national reforms to attract foreign investment. This created new opportunities for real estate speculation, both for local property owners and international investors (ibid.). Since this period of economic uncertainty, a tourism boom has led Lisbon's economic recovery. Lisbon has also attracted a number of tech startups, supported by government-led investment into creative districts (Lönnervall & Sundell, 2018).

¹1998 Lisbon World Exposition

At the present time, Lisbon is the strongest economic area in Portugal and has become a prominent destination for tourists internationally. The growth of the tourism sector stimulated redevelopment in the municipality’s inner historic neighbourhoods, with many older apartment buildings refurbished for tourist accommodation (Calvo & Ramos, 2018). While tourism growth assisted the city’s economic recovery after successive crises, it also created new challenges for the city as the residential property market has been re-oriented for tourists and communities are at risk of displacement.

3 Governance and political dynamics

Preliminary desktop research and surveys established the local context for Lisbon, covering politics, urban development, transport and local governance arrangements.

The governance of road space allocation in Lisbon is shared across different levels of government, including local parishes, Lisbon Municipality, Lisbon Metropolitan Area and the central government. Lisbon is one of the most centralised states in Europe, with the central government responsible for a high proportion of decision-making, revenue collection, and budget allocation.

3.1 Institutional and organisational arrangements

Table 1, below, summarises the institutions responsible for road space allocation through transport planning, provision of transport and police services, regulation of road spaces and allocation of budgets.

Table 1: Institutions responsible for road space allocation in Lisbon

Jurisdictional scale	Institution	Organisation type	Responsibilities
Municipality	Lisbon Municipality (CML)	Municipal authority	Transport planning, specifically the production of the city’s SUMP
	Carris	Company (municipality-owned)	Public bus services
	Empresa Municipal de Mobilidade e Estacionamento de Lisboa (EMEL)	Company (municipality-owned)	Parking, mobility management, innovation projects
	Juntas de Freguesia / Parish councils	Parish council (within municipality)	

Metropolitan area	Lisbon Metropolitan Area (AML)	Metropolitan associative body (executive, legislative and consultative organs)	Inter-municipal coordination for sports, security, civil protection, transport, sanitation, health, environment, tourism, culture
National	Ministry of Public Works, Transportation and Communications (MOPTC)	Central government department	Set national policy for construction, communications, transport (air, river, sea, land) and public works
	Ministry of Finance and Public Administration	Central government department	Allocation of financial resources
	Institute of Mobility and Land Transport (IMT)	Autonomous public institution	Planning, regulation, licensing and supervision of land and river infrastructures; commercial ports and maritime transport
	Institute of Road Infrastructure (IP)	Autonomous public institution	Regulation of road infrastructure sector

Lisbon Municipality, CML, retains control over land use planning and much of the road infrastructure within their jurisdiction. The municipality don't have a strong tradition of strategic planning, and are usually been more focused on operations. At present, CML have two different departments responsible for road space allocation: mobility and land use planning.

3.1.1 Ownership and maintenance of infrastructure assets

Lisbon's road network is predominantly owned by the municipality, CML, and managed by a municipality-owned company, EMEL. CML oversee the police, own and operate the bus company, and the mobility company responsibility for parking, traffic signals and the city's bike-share scheme. The Lisbon metro is operated by a central government-owned company, funded by central government grants, contributions from the municipality, and revenue from subsidiary firms

3.1.2. Regulation of land use and transport service provision

CML is responsible for regulating and enforcing land use and public space, although this works within land use definitions set by the central government. The municipality are also responsible for noise issues. Within the municipalities, parish councils oversee very local issues related to public space. Each municipality can set the responsibilities assigned to parish councils. Over the past two years, a range of shared mobility services have started operating in Lisbon, including ridehailing (Uber, Bolt, Kapten, Cabify), carshare (DriveNow), dockless scooters (Lime, Hive) and bicycles (Jump). Shared mobility providers are regulated through individual MoUs with different providers, with CML setting the terms by which

vehicles can use public space for operation, pick up and set down. Shared mobility providers must provide real-time data, which allows CML to monitor service provision across different operators.

Air pollution is regulated by the European Union, which set targets for air pollution. Monitoring is the responsibility of AML, on behalf of the Ministry for the Environment. Logistics is managed by the private sector, although the municipality regulate the definition of loading and unloading bays

3.2 Political context

Portugal is one of the most centralised countries in Europe, with approximately 15% of government spending across local and regional levels (Seixas et al., 2015). Attempts to consolidate political powers at the metropolitan or regional scale have been problematic. The first Regional Master Plan was created in 1964, following legislative changes that formally defined the Lisbon Region, required the creation of a territorial plan for transport, land use zoning, water supply and electricity, and also required articulation between local and regional plans. (Martins et al.). However, the plan was not implemented, because there was no administrative structure to deliver on its goals - the plan's objectives went beyond the powers of individual government departments, and never received formal approval from the National Assembly (ibid.). In 1991, the Lisbon Metropolitan Area (AML) was formed, with representation of 19 municipal councils. This body functions as an association of municipal councils, with no deliberative function or decision-making power over metropolitan issues (ibid.). 1998 referendum on devolving power to regional governments rejected the proposal, as regions were perceived as potential competitors to both national and municipal authorities (Nanetti et al., 2004).

3.2.1 National

Currently, Portugal is a democratic republic. The central government is led by the prime minister, with a president acting as executive head of state. Since 2015, Portugal has been governed by a coalition of the social-democratic Partido Socialista (PS), communist Partido Comunista Português (PCP), eco-socialist Partido Ecologista "Os Verdes" (PEV) and left-wing Bloco de Esquerda (BE), led by prime minister Antonio Costa from the PS. Marcelo Rebelo de Sousa of the liberal-conservative Partido Social Democrata (PSD) is the current president.

From 2002 to 2015, the Social Democratic Party (liberal-conservative) and the Socialist Party alternated in gaining the most seats at the *Assembly of the Republic* (national parliament) legislative elections. However, in 2015, Portugal Ahead (*Portugal a Frente*), a new right-wing political and electoral alliance composed of the Social Democratic party and the Christian national conservative party, won the most seats. They won every district in the North of Portugal and big districts of Lisbon whilst the Socialist Party dominated the South. Nevertheless, this alliance was dissolved as its programme was rejected in Parliament by the opposition and the Socialist party became the new minority government led by the prime minister.

Portugal's next legislative elections will take place in October 2019. According to recent polls, the Socialist Party, led by the President of Portugal, will win the majority of the Assembly followed by the Social Democratic Party led by Rui Rio, former mayor of Porto (Observador, 2019). Since 2006, both presidents of Portugal were from the Social Democratic Party, the main opposition party in the Parliament. The current president Marcelo Rebelo de Sousa was elected in 2016. Beforehand, the president was from the Socialist Party (1996-2006). The next presidential elections will be in 2021.

The central government have a powerful role, with the Ministry of Public Works, Transportation and Communications responsible for planning transport investments, the Ministry of Finance and Public Administration allocating budgets, and Instituto da Mobilidade e dos Transportes Terrestres regulating transport and funding municipalities to carry out public engagement and traffic analysis (Rayle & Zegras, 2013).

3.2.2 Local

In Lisbon's three local bodies - the municipal chambers, municipal assembly and the parish assembly - the Socialist Party has, since 2009 up to today, in majority gained the most seats followed by the Social Democratic Party. However, in 2005, the Social Democratic Party substantially had the most seats in all three institutions.

In regards to the mayors of Lisbon, between 1995 to 2002 and since 2007, all four mayors elected were from the Socialist Party. However, between 2002 and 2007, the five successive acting mayors were from the Social Democratic Party. The current mayor, Fernando Medina, is from the Socialist Party and was elected in 2015.

Camara Municipal de Lisboa/Lisbon Municipality (CML) is one of nineteen municipalities across the metropolitan area. CML is governed by a directly-elected mayor and seventeen elected councillors. AML, the metropolitan authority, comprises 51 directly-elected members and 24 presidents of parish councils. Within the municipality, there are 53 Parish Councils that are responsible for public space maintenance, community infrastructures, licensing of specific street activities and community action projects. Municipalities were significantly impacted after the global financial crisis, with budget cuts of 20-30% between 2009-2015 (Condessa et al., 2015) Since the 1980s, municipal finances in Lisbon have been heavily dependent on property development taxes (ibid.).

Politically, Lisbon's position as Portugal's capital city is significant. Jorge Sampaio, Lisbon's mayor between 1990-1995, went on to become the country's president from 1996-2006. António Costa, the mayor between 2007-2015, went on to become the country's prime minister in 2015. Currently, there is strong political alignment between the mayor Fernando Medina and the Socialist Party. Despite the shift in the city's economic base toward services, the port and airport have continued to play a major role. The Port of Lisbon is one of the largest European ports on the Atlantic coast (by capacity), and Humberto Delgado Airport has increased passenger volumes by 250% since 2004, to 27 million passengers per year (Lisbon Airport, 2017). Controversies over the proposed relocation of the airport have been prominent since the 1950s, however since the 2008 financial crisis and 2010 sovereign debt crisis, plans for expansion were put on hold (Silva et al., 2015). As of 2019, the expansion of

Humberto Delgado Airport and construction of a new airport location at Montijo are planned, and will be privately funded by Vinci, the airport concessionaire (Portugal News, 2019).

4 Transport and urban development vision and policy objectives

The Lisbon Municipality has a relatively low vehicle ownership compared to the rest of Portugal. Indeed, the city has only 217 registered cars per 1000 individuals (Martinez & Viegas, 2017). Nevertheless, many commute into the area by car from other municipalities into Lisbon, thus increasing the number of cars circulating in the city. The low car ownership in the municipality can be explained by the low amount of parking spots in the historical center with around 78% of available capacity used at all time (Martinez & Viegas, 2017). In addition, there is a well-established public transport system which includes an underground network of 4 lines, bus and tram routes and four railway lines.

Lisbon's daytime population is substantially higher than the resident population, increasing by up to 50% (ref). In Lisbon, modal share comprises around 39% private motorised travel, 50% public transport and 11% walking/cycling (Martinez & Viegas, 2017). No official modal share has been published since 2001. Around 5 million person-trips are made in the metropolitan area of Lisbon every day, of which 1.2 million take place in the Lisbon municipality. In total, 55% of the trips in the LMA are done by commuters (Martinez & Viegas, 2017). Starting in 2011, Lisbon began the phased implementation of a low emissions zone in the city centre to reduce air pollution and comply with European Air Quality Directives (da Silva, 2014).

The cost is the main reason public transportation users' and pedestrians justify their choice of mobility in Portugal. This trend is common in Southern and Eastern European countries due to the historical importance of walking and using public transport, as well as the recent economic developments and crisis (Haustein and Nielsen, 2016). Nevertheless, Portugal and Lisbon still have a strong car culture. Citizens in Lisbon still ask for more parking space at the Parishes and sidewalks in the center are still relatively small compared to the space allocated to vehicles (Paris workshop, 14/05/19). Other challenges that impact Portugal's transport culture include pressure from the growing tourism sector (Lisbon workshop, 14/03/2019). Lisbon's approach to mobility has changed in recent years, led by the current mayor Fernando Medina, to pro-actively encourage sustainable travel through spatial planning, transport investment and regulation. Traditionally, transport planning in Lisbon was based around car ownership, road expansion and provision of parking infrastructure to accommodate growth in private vehicle travel (Santos, 2017). Planning was treated as a technical, objective instrument that produced the vision of technocratic officials, and there was limited mobilisation of transport or mobility policies to meet social or political agendas (ibid.).

4.1 Vision for transport and urban development

Over the past 18 months, the deputy mayor for mobility has had oversight of mobility technical services, the bus operator and the mobility company responsible for parking, traffic signals and bikeshare. Mayoral elections are significant to set the agenda for urban mobility. It is 2 ½ years away from the next elections (at December 2018) and the closer it gets, the more sensitive issues become with the media. The public plaza programme was part of the last election programme, and so there is a strong mandate to deliver the mayor’s promises between now and 2021, if he wants to be re-elected.

Lisbon has actively sought to lead progress on sustainable mobility, aiming to be a leading case by 2030. It will be the European Green Capital in 2020, and as part of this it has committed to a 40% reduction in carbon emissions by 2050. The Sustainable Urban Mobility Plan (SUMP) aims to reduce the number of vehicles in the city to 150,000, and the deputy mayor has also set a target for zero roads deaths on city streets. Lisbon Municipality’s vision for the city is set out in the Plano Diretor Municipal (PDM). The PDM establishes seven strategic objectives and identifies four areas of the city that are earmarked for redevelopment to support these goals.

Table 2, below, summarises these objectives.

Table 2: Strategic objectives for urban development in Lisbon (CML, 2012)

Strategic objectives	Areas for strategic redevelopment
<ul style="list-style-type: none"> - Attract more inhabitants - Capturing more companies and jobs - Driving urban rehabilitation - Qualify the public space - Returning riverside front to people - Promoting sustainable mobility - Encourage environmental efficiency 	<ol style="list-style-type: none"> 1) The riverside arch that reinforces the relationship with the water front and its environmental and urban value 2) The Baixa and the historical axes - Avenida da Liberdade and Almirante Reis - key elements in the revitalization of the consolidated city 3) The ring of urban polarities, the new spaces of modernity of Alcantara the Surrounding of the East Station, which proposes the concentration of employment 4) The second circular that is proposed to reconvert in an urban avenue to connect the northern part with the rest of the city

Lisbon Municipality’s goals for mobility in the city are set out in the Plano Diretor Municipal (PDM):

- Defending the environment by improving air quality and reducing noise;
- Decongest the public space in favor of the pedestrian and gentle modes of locomotion
- Protect from crossing traffic the residential areas, the places with the highest concentration of activities and the emblematic areas of contemplation and recreation

5 Road space re-allocation: new demands and barriers to co-ordination

This section summarises the findings of preliminary surveys and stakeholder workshops conducted with representatives from key local, metropolitan and national organisations responsible for the governance, planning, investment and regulation of road space.

First, it explains the institutional and organisational arrangements for road space reallocation, and the new demands for more diverse uses of road space. Second, it discusses barriers to co-ordination across different institutions.

5.1 What are the new demands for, and challenges with, alternative or more diverse street uses?

CML place a strong focus on public space, related to the larger vision of the city's development. This is a major issue on the agenda at mayoral elections. However, implementing the public plaza programs is much more difficult when it requires the removal of parking spaces, as this is a major source of contention with local residents.

5.1.1 Tourism and shared mobility services

Lisbon has seen substantial growth in shared mobility services due to tourism, which generates much more inter-peak demand and diverse travel patterns across the city. CML strongly encouraged shared mobility operators to establish themselves in the city, and over just two years the number of operators grew from zero to three car-sharing operators, nine scooter-sharing companies, and four ride-hailing companies. While these mobility services provide more flexibility and greater service coverage, it also puts more pressure on the local road networks.

5.1.2 Travel demand arising from interconnected local, regional and international networks

At the same time, property prices within Lisbon Municipality have become very expensive, driving further out-migration to municipalities that are poorly connected, so a large number of cars flow into the city each day as people travel in for work. New generations are more open and willing to use cycles and kick scooters, although there are safety concerns over the use of electric scooters in pedestrian public spaces. The challenges to accommodate more diverse uses are not just about space allocation, but the timing of flows - there are challenges to giving pedestrians and cyclists more time to cross at signals. The choice of the MORE corridor reflects the city's challenges, as Lisbon is a node on international networks, with connections through the airport, port and railway. However, CML don't manage these infrastructures, and there are concerns over multimodal integration. This is particularly relevant given the long-term underinvestment in infrastructure and maintenance due to public sector constraints after the financial crisis. In the future, the environment and imperative to decarbonise the transport sector will have a big impact on travel demand and the use of road space.

5.2 How have these demands been addressed so far, during planning and implementation stages?

5.2.1 Public plaza programme

Over the past 5-10 years, CML have actively reverted the traditional approach to plan

transport around cars. Instead, the new approach seeks to expand spaces for pedestrians, cyclists and public transport. Their conception of mobility goes beyond traffic movements to consider public space and the quality of infrastructure for pedestrians and cyclists. To improve mobility, conceived in this way, the city draw from different forms of expertise, including environmental design, planning, public space and engineering. This change in approach came from the mayor's leadership, and involved international benchmarking studies that surveyed what other cities were doing, globally. CML have rolled out a public space programme, in parallel to mobility upgrades, creating central plazas in each neighbourhood (around fifteen have already been implemented). Figure 1 shows the redeveloped roundabout at Saldanha.



Figure 1. Saldanha, Lisbon

5.2.2 Soft regulation of shared mobility operators

Establishing legislation to regulate new mobility services is difficult, due to the fast pace of change and new technologies. To address this, Lisbon have engaged with shared mobility operators with a form of soft regulation, setting up MoUs with operators that establish guiding rules and the powers that are held by the operator and the municipality. A key dimension of this regulation is access to data. CML require all mobility operators to provide open access to their data feeds, to monitor the movement of vehicles and ensure they are following the rules established in the MoU. Since CML have authority over road space, regulation of these operators focuses on where they can (and cannot) park and operate their vehicles. Using the data feeds from different mobility operators, CML are creating an integrated operations centre and partnering with aggregative platforms (such as Citymapper) to enable data-sharing and the use of data from different platforms, for decision-support. This will also partner with Google and Waze, to share real-time information on traffic flows, pass on public notifications for road closures or delays.

5.3 Barriers to co-ordination

Efforts to re-allocate road space require co-ordination across institutions and their respective processes, which can be challenging where institutions are fragmented across different

sectors and spatial scales. The workshop activities identified four key barriers to co-ordination for the reallocation of road space.

5.3.1 Weak powers for strategic planning at the metropolitan level

There is a major tensions between the issues that arise at the metropolitan level, and the actual powers and capacity of the metropolitan authority to address them. For example, land use planning is managed at the municipal level, but transport policy is set by the central government, so the priorities and drivers behind the two are mis-aligned. Furthermore, the metropolitan plan doesn't propose a comprehensive model for spatial development, with a clear objective to shape the redistribution of populations back into the city centre, or establish specific targets for modal share. Within the central government, there is a body responsible to co-ordinate public transport at the regional level, and they are currently in the process of decentralising their responsibilities to municipal and metropolitan authorities. It is mostly through political channels that funding is allocated, sometimes there are working groups to define some policies - work with municipalities is mostly in the area of SUMP's, mostly for technical support. Troika/economic crisis affected the city between 2011-2014, there was a large disinvestment in public transport

5.3.2 Fragmented efforts to repurpose streets

While CML have a public space programme in progress, efforts to reallocate road space across the city are still fragmented and many road corridors or junctions remain dominated by parking and private vehicle traffic. CML also lack a consistent policy for parking supply, which makes it difficult to align decision-making. Since 80% of the city centre jobs are concentrated in a small area and there is strong pressure for parking. Engaging with, and educating the public on CML's vision for improved mobility and public spaces is a key challenge. Sustainable mobility has a big impact on quality of life and the amenity of the city, but it remains challenging to have conversations and involve people in CML's strategies. The general population are still very car-dependent, and there is relatively low awareness about new approaches to mobility. For example, over 90% of public participation in the public plazas programme was related to parking spaces and how they would be affected. At these smaller scales, you also have issues with larger voices (such as the association of road drivers) opposing new plans.

5.3.3 Public sector hiring freeze

The operation of public authorities has been influenced by the freeze on public sector hiring since the debt crisis in 2011 and subsequent financial reforms. As a result, authorities rely on consultants and contractors to maintain capacity. The freeze limits CML's ability to work with younger generations, with different experiences and types of knowledge. At present, the average age of public sector workers is around fifty and within the technical professionals there can be more conservative approaches to transport planning, and resistance to plans that try and reallocate road space.

5.3.4 Limited authority over regulations influencing travel behaviour

Related to the issues over strategic planning at the metropolitan level, Lisbon Municipality's ability to co-ordinate to reallocate street space is limited as they cannot control or regulate many of the drivers of travel demand. People travelling to schools to drop off children are a major issue, since families living outside the municipality can enrol their children in schools

within the municipality, if their place of work is in the school zone. This creates a lot of additional vehicle traffic during peak hour. Travel to and from private schools, often far from students' place of residence, are also problematic. Enrolments are not based on residential location, and students often have to be taken to and from school by car. Company cars are another key issue, since tax laws incentivise companies to provide them. According to the statistics, 80% of the cars registered in the municipality are company cars. This suggests that a large volume of traffic could be reduced by changing these regulations, if the municipality had the authority to do so. Traffic coming from outside the municipality also puts additional pressure on parking.

Table 3 summarises these institutional and organisational barriers, categorised by Hood's (1986) typology of governing resources.

Table 3: Institutional and organisational barriers to road space re-allocation in Lisbon

Institutional and organisational barriers to road space reallocation				
	Lack of strategic planning at metropolitan scale	Fragmented efforts to repurpose streets	Public sector hiring freeze	Limited authority over regulations influencing travel behaviour
	AML has limited capacity (skilled staff) to undertake strategic planning	Insufficient capacity to comprehensively implement road space retrofits.	Hiring freeze affects skills development	No capacity to influence travel patterns arising from school travel and commuting for work.
	Urban planning is devolved to municipalities, while major roads and the Lisbon metro is under national authorities		No legal authority to hire permanent staff; reliant on contractors	No authority to determine school zoning policies, company car affecting travel demand
	No financial resourcing for AML to conduct strategic planning	Insufficient financial resources to comprehensively implement road space retrofits.		
	AML have representatives of municipal governments - limited credibility to address metropolitan-scale issues	Limited public engagement in, and awareness of vision or strategy for road space re-allocation. 'Car culture' mindset is dominant.		

The overview of institutional barriers in Table 3 shows that limited organisational resources are common challenge.

This arises from several underlying drivers: the public sector hiring freeze initiated during the economic crisis [[Note for Sandra - when did the freeze start?](#)] and the limited capacity of the metropolitan authority (AML) to resolve metropolitan-scale issues through strategic planning. The characteristics of the built environment, which is dominated by automobile-centric road infrastructure, means that the scale of investments and interventions required to re-allocate road space across the whole municipality is significant. Relative to this, the municipality have limited capacity to plan, consult on, and implement road space re-allocation schemes.

A second issue relates to legal authority and the relatively weak metropolitan governance institutions. AML provide representation for municipalities across the metropolitan area, but without officials directly elected at the metropolitan scale there is limited potential to devise and implement solutions to metropolitan-scale challenges related to transport and road space re-allocation. There is also limited capacity within AML to undertake strategic planning, nor dedicated financial resources for strategic planning and transport investment. Instead, national government have authority to set budgets and decide on major transport investments.

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7.1.1 MORE Lisbon Workshop, March 13-14, 2019

- 2 Facilitators from Sciences Po and University College London
- Participants from the following organisations:
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 - Metropolitano de Lisboa, E.P.E. (metro operator)
 - Instituto da Mobilidade e dos Transportes, I.P. (national transport regulator)
 - Área Metropolitana de Lisboa (metropolitan authority)

7.1.2 MORE Paris Workshop, May 14, 2019

- 2 Facilitators from Sciences Po and University College London
- 2 participants from CML

7.1.3 Face-to-face or phone interviews

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City portrait: London

Annex to D2.1 report

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1 Summary findings

Reallocation of road space in London is a key intervention to achieve goals for air quality improvement, road safety and improved amenity of public spaces. However, these goals are in tension with London's aim to accommodate future growth through intensification of existing built-up areas, concentrated around rapid transit nodes. Intensification concentrates travel demand and the density of movements in growth areas, placing more demands on a fixed amount of road space. Currently, these challenges are addressed through growth-led, integrated land use and transport development between the public and private sector, as well as the Healthy Streets Approach. Residential property development in London is led by private developers, who work closely with boroughs to negotiate street infrastructure improvements, affordable housing and infrastructure contributions. The Healthy Streets Approach is a foundational framework for the Mayor's Transport Strategy, and is implemented jointly by local borough councils and Transport for London. There are several barriers to co-ordination across the Mayor, Greater London Authority, Transport for London (TfL), borough councils, central government and transport operators. Different institutions work to objectives and targets that are misaligned, and the current financial constraints of TfL are a significant challenge as prioritisation is influenced by the imperatives to optimise revenue. Co-ordination barriers also arise from political change, due to volatility in the leadership and priorities of London's mayor, as well as disruption of longer term planning processes during the lead-up to mayoral elections.

2 Background context: history and economic change

London is the long-standing political and commercial centre of the United Kingdom. The city's growth across the 19th and 20th centuries was supported by rapid expansion of rail lines enabling residential expansion to peripheral areas, and the London Underground, between 1863-1906. The introduction of a green belt, in place since 1938, has constrained the city's outward expansion.

Following the destruction of large parts of central London during World War II, many areas were redeveloped and in the 1960s the Ministry of Planning sought to accommodate private motor vehicles in the urban environment. The decision-making and rationale for re-orienting transport policy around motor vehicles is summarised in the Buchanan Report (1963). Investments in a series of ring roads were planned in the 1960s, however due to political opposition only parts of this scheme were realised. By the 1990s, there was a market shift in the paradigm for transport planning, and the 1999 report *Transport and the Economy* (SACTRA, 1999) acknowledged the need to reduce transport intensity, and the faulty assumptions behind the assumed relationship between transport infrastructure and economic growth. Around the same time, substantial re-investments into the city's public transport networks, including the Jubilee Line extension (1999) and bus services, led to a reduction in private vehicle travel and improved patronage for public transport. The introduction of a congestion charge in 2003 was another major policy intervention for London's transport, which led to reduced congestion in the city centre at peak hours and encouraged shift to public transport, walking or cycling. The transport network's capacity for commuter travel will increase significantly when the east-west Crossrail line is opened in 2019.

Preliminary desktop research and surveys established the local context for London, covering politics, urban development, transport and local governance arrangements.

3 Governance and political dynamics

London has a two-tier system of government. The metropolitan area is governed by the Greater London Authority (GLA), and thirty two Borough councils. The GLA was established in 2000, comprising an elected mayor and 25-member London Assembly. While the GLA has limited responsibilities for service delivery, it has direct oversight of Transport for London (TfL) and the Mayor's Office for Police and Crime (MOPAC), and enables the mayor to appoint himself as chair of TfL. Although there is only one official deputy mayor, the mayor appoints special advisers (often named deputy mayors) for ten different portfolios (Sandford, 2018). Currently, the deputy mayor for transport is Heidi Alexander. Air pollution has become a prominent issue for London in recent years. To address the persistently high air pollution levels in busy corridors, an Ultra-Low Emissions Zone was introduced in 2019, imposing daily charges on vehicles that do not meet exhaust emission standards. This zone is planned to be extended in 2021.

3.1 Institutional and organisational arrangements

Table 1: Institutions, stakeholders and non-government interests in transport and urban development

Jurisdictional scale	Institution	Type of organisation	Responsibilities
Metropolitan	Greater London Authority (GLA)	Metropolitan authority	Mayor directly responsible for setting transport strategy for Greater London.
Metropolitan	Transport for London (TfL)	Integrated transport agency	Responsible for major roads (red routes), underground and bus services. Mandate set by Mayor's Transport Strategy.
Local	Borough Councils	Local authority	Responsible for delivery of housing supply and local roads.
Metropolitan	Mayor's Office for Policing and Crime (MOPAC)	Metropolitan authority	Responsible for performance and strategic direction of the Metropolitan Police, directly accountable to the Mayor of London.
National	Department for Transport (DfT)	Ministerial department	Responsible for setting transport policy and allocating funding to local authorities for road upgrades and maintenance.
National	Highways England	Government-owned company	Responsible for operating and maintaining motorways and major A roads across England.

3.2 Transport in London

Compared to other global cities, London has a well-developed multi-modal transport system with integrated planning and ticketing across modes (excluding commuter rail services). Travel mode share comprises 38% private motorised travel, 35% public transport, 25% walking and 2% cycling (TfL, 2017b). Since the mayor of London has authority over the budget and priorities for Transport for London, agendas for transport usually vary between different mayors. TfL typically consult with candidates to help develop their transport strategy and manifesto for mayoral elections.

The New London Plan aims to achieve ambitious increases in sustainable travel mode share (including walking, cycling and public transport), with 95% of trips in central London, 90% in inner London and 75% in outer London (GLA, 2018b). Through the London Plan process, led by the GLA, projected growth estimates inform the allocation of new transport investments and housing intensification through the Opportunity Areas Planning Framework. The purpose of this approach is to balance the demands on land use, between transport and mobility

functions, and growth in homes and jobs. Reporting takes place to monitor both the changes in travel behaviour in relation to planning, as well as the performance of the transport network. The metrics used by TfL have evolved in recent years. Ten years ago the focus was journey time reliability, this then shifted to bus performance 3-4 years ago, and more recently the targets are hours saved for sustainable modes, and cyclist figures. This reflects the ongoing evolution of outcomes desired from the transport system.

In London, public transport is often used by the general public and tourists without strong socio-cultural biases toward particular modes: the underground and buses in London are not usually associated with social class or prestige (Ashmore et al., 2019: 32). The United Kingdom does not have a strong cycling culture, relative to other European countries, although cycling has become more popular in cities in recent years. In London, studies show that cyclists tend to be middle and upper-class men, commuting to work, and further improvements are required to make the cycling infrastructure accessible to other groups (Aldred and Jungnickel, 2014).

In addition, London's transport sector is a tourist attraction, since the London Underground was the world's first underground passenger railway, and the red double decker buses have strong cultural significance.

3.3 Political context

3.3.1 National

Between 2001 and 2010, the Labour party had an overwhelming majority in the House of Commons and both Prime Ministers during these terms, Blair and Brown, were from the party. However, the 2010 elections marked a shift. Ever since, the Conservative party has kept the majority in the House of Commons and has had two Prime ministers, Cameron and May. The next general elections will be in 2022.

3.3.2 Local

The Conservative party held the majority of seats in the London Assembly between 2004 and 2012. Since then, the Labour party has taken the lead. In this same time frame, since 2004, there has been two mayors of each party with the current one, Sadiq Khan, being from the Labour party.

4 Transport and urban development vision and policy objectives

4.1 Vision for transport development

The current mayor, Sadiq Khan, published a new Mayor's Transport Strategy in 2018. It aims to support this growth in population and jobs with sustainable, healthier, safer transport in London. This means significant mode shift to walking, cycling and public transport (the most space-efficient modes) through prioritisation and reducing the dominance of the car - known as the Healthy Streets Approach. The aim is 80% sustainable mode share by 2041. London

has already seen decreasing car mode share over recent decades and increasing public transport mode share (and more recently rapid increase in cycling mode share), but the gap between where we are and 80% sustainable mode share is substantial. The mayor has also committed to Vision Zero: All deaths and serious injuries from road collisions to be eliminated from London's streets by 2041. Whilst TfL have made progress on this, there is a long way to go to achieve this ambitious aim.

At the same time, TfL have a responsibility to ensure essential freight and servicing traffic can continue to serve London. With limited road capacity, that will continue to be re-allocated to walking, cycling and public transport (following the Healthy Streets Approach), there is an imperative to be innovative and allow for flexible use of roadspace throughout the day. Table 2 summarises the goals set out in the Mayor's Transport Strategy.

Table 2: Policy objectives in Mayor's Transport Strategy (GLA, 2017)

Objectives	
80% of all trips in London to be made on foot, by cycle, or using public transport by 2041	All Londoners do at least 20 minutes of active travel each day, by 2041
Zero deaths from bus collisions by 2030, and zero deaths and serious injuries on London's streets by 2041	Reduce overall traffic levels by 10-15% by 2041
Reduce emissions from vehicles on London's streets and reach compliance with UK and EU legal limits as soon as possible	Zero carbon emissions from London's transport network by 2050
Ensure that transport schemes protect green infrastructure, and replace where possible	Ensure that London's transport is resilient to the impacts of severe weather and climate change
Use the Healthy Streets Approach to provide an attractive whole journey experience and facilitate mode shift away from the car	Eliminate deaths and serious injuries from London's rail, Tube, Overground, DLR, tram, river and cable car services
Ensure public transport fare levels are affordable for all Londoners	Make the public transport network easier and more pleasant to use
Enhance London's streets and public transport network, to make it navigable and accessible for disabled and older people	Offer faster, more reliable, accessible and comfortable bus services
Use the full potential of the Thames River to integrate services with the public transport network	Increase capacity of rail services at least 80% by 2041
Require regional, national, international schemes to be integrated into London's public transport system	Develop London's public transport services to support the growth of the night time economy

Ensure London has a safe, secure, accessible, world-class taxi and private hire service	Use transport to create high-density, mixed-use places and unblock growth potential
Continue to oppose expansion of Heathrow Airport unless the impacts can be mitigated	

The primary instruments to deliver these goals are the Healthy Streets Approach and the development of Local Implementation Plans (LIPs) by borough councils.

4.2 Urban development

The vision for urban development in London is set out in the London Plan¹, the statutory Spatial Development Strategy for Greater London. Accommodating growth is the primary objective of the London Plan, which projects continued population growth to over 10 million residents by 2030 (GLA, 2016). The specific pressures, challenges and strategic objectives of the London Plan are summarised below in Table 3.

Table 3: Growth pressures, challenges and objectives identified in the London Plan (GLA, 2017)

Pressures	Challenges	Objectives
Substantial population growth	Persistent problems of poverty and deprivation	A city that meets the challenges of economic and population growth
		An internationally competitive and successful city
More diverse population	Climate change adaptation and mitigation	A city of diverse, strong, secure and accessible neighbourhoods
		A city that delights the senses
Growing and changing economy	Protecting the natural environment	A city that becomes a world leader in improving the environment
		A city where it is easy, safe and convenient for everyone to access jobs, opportunities and facilities

¹ The London Plan is currently under consultation for the refreshed version

6 Institutional and organisational arrangements for road space reallocation

This section summarises the findings of preliminary surveys and stakeholder workshops conducted with representatives from key local, metropolitan and national organisations responsible for the governance, planning, investment and regulation of road space.

First, it explains the institutional and organisational arrangements for road space reallocation, and the new demands for more diverse uses of road space. Second, it discusses barriers to co-ordination across different institutions.

6.1 What are the new demands for, and challenges with, alternative or more diverse street uses?

Demands on road space in London arise from intensification and population growth, as well as the political agenda to improve air quality, road safety and provision for sustainable travel modes. In recent decades, London has invested substantially into public transport, cycling infrastructure and public realm improvements. Much of this investment was catalysed by the 2012 Olympic Games, and more recently the £4 billion Road Modernisation Plan, which improved access to public transport and reallocated road space to optimise efficiency, across all modes, at key traffic junctions.

6.1.1 Accommodating growth through intensification of existing urban areas

Accommodating growth through intensification of existing built-up areas, within the Green Belt, is the primary objective of the London Plan. This results in higher volumes on public transit services, concentrated trip generation and in turn, more people walking, cycling and driving on urban streets. Concurrently, growth also generates greater volumes of freight and logistics services, and commercial vehicles. The demands placed on road space are heterogeneous across London, based on the existing level of public transport provision and connectivity to other areas of the city, and international links. The limited level of public transport services and cycling infrastructure in some areas of London is a particular concern, since growth could result in a substantial increase in private vehicle traffic if alternatives are not available (TfL representative, interview). As the city grows, the tourist sector also has a big impact on road space, with increased travel through stations connected to London's airports, as well as coaches and tour buses (TfL representative, Paris workshop).

6.1.2 Public health, air quality and road safety agendas

The second demand for road space results from goals to improve air quality, road safety, and infrastructure for walking and cycling. Public awareness of the health impacts of air quality has grown significantly in recent years, spurred by early reports from policy think tanks (Moore, 2012) and the inclusion of air quality on Mayor Sadiq Khan's political agenda. Similarly, public expectations for improved road safety have grown since the Vision Zero movement spread from Sweden to cities in the United Kingdom, Canada, United States, the

Netherlands and Norway (Belin, 2012). These agendas require the reprioritisation of road space, slowing traffic speeds and limiting capacity for private vehicles, alongside separated rights-of-way for cycling and public transport.

6.2 How have these (new) demands been addressed so far, during planning and implementation stages?

Transport planning and urban development in London is strongly oriented to enable intensification. The London Plan identifies growth as the major challenge for London, and sets the objective to accommodate future growth within the existing urban area. Housing targets are set for each Borough Council, who then work with private developers and Transport for London to enable property development and transport upgrades to accommodate greater travel volumes on public transport services, cycling infrastructure and city streets.

6.2.1 Growth-led, integrated land use and transport planning

Growth in travel demand, and the transport schemes required to support this growth, are determined at several different spatial scales. The London Plan identifies major growth corridors, based on development potential and planned transport upgrades. Within these corridors, Opportunity Areas are identified, for which borough councils develop Area Action Plans (AAPs). AAPs set out the requirements for development proposals within the Opportunity Area, specific to site allocations, infrastructure capacity, social regeneration, affordable housing, commercial workspace, town centre areas, tall buildings, heritage and green spaces. Individual planning applications identify the specific needs for road space improvements and transport infrastructure at the scale of the development. Financial contributions or direct provision of infrastructures is typically negotiated between local council planners and property developers.

6.2.2 Healthy Streets Approach

Agendas for air quality, sustainable mobility and public health are encompassed in TfL's Healthy Streets Approach: a set of policies and strategies to improve the provision for walking, cycling and public transport on London's streets. Borough Councils are the main actor implementing the Healthy Streets approach, as they own and have control of 95% of the city's roads and streets. A key target set by the Healthy Streets Approach is 80% mode share by sustainable modes (walking, cycling, public transport). This approach is operationalised through the local transport plans - for example, Southwark Council's key strategies include the Movement Plan (2019) and Cycling Strategy (2015). London's Mayor Sadiq Khan adopted Vision Zero in 2017, a joint initiative between the Metropolitan Police, London boroughs and TfL to retrofit major junctions, introduce lower speed limits, as well as more stringent safety standards for heavy goods vehicles.

6.3 Institutional and organisational barriers to road space reallocation

Co-ordination is a challenging task for policy. It requires that adjustments are made for sets of decisions so that the negative consequences of any single decision for other decisions are avoided, counterbalanced, outweighed or reduced (Lindblom, 1965). Efforts to re-allocate

road space require co-ordination across institutions and their respective processes, which can be challenging where institutions are fragmented across different sectors and spatial scales. Barriers to policy coordination arise for a range of reasons, including specialisation of tasks, power relations, performance management, beliefs and ideologies, politics, accountability, and incentives for organisations to protect their own 'turf' in terms of budgets, policies or staff (Guy Peters, 2018).

The workshop activities identified three key institutional and organisational barriers.

6.3.1 Conflicting performance targets across the different institutions responsible for allocating road space

The main institutions responsible for road space allocation, Transport for London (TfL) and borough councils, have goals and specific performance targets that are often contradictory, or in tension with each other. Borough Councils are tasked with facilitating private sector-led housing development within their jurisdiction, and Transport for London are responsible for public transport and cycling infrastructure. The substantial housing growth targets allocated to Boroughs are largely met through intensification or infill development, which in turn increases travel demand on local roads as well as TfL's public transport networks. This creates a significant challenge to co-ordinate to support collective goals, such as the Mayor's Transport Strategy target of 80% of trips by sustainable modes across London. The actual target is higher for inner London boroughs such as Southwark, since they have greater provision of rapid transit services, while some outer boroughs have limited coverage from tube and rail networks. To achieve these targets, there must be co-ordination between TfL, borough councils and private developers to ensure that new developments are concentrated around existing public transport networks and accompanied by street upgrades to ensure safe movement for walkers and cyclists. Additionally, capacity upgrades to TfL's public transport networks must accommodate increased travel demand from commuters and residents.

Decisions on road space reallocation are made across borough-level street upgrades, TfL-led schemes such as Cycle Superhighways, as well as Quietways on borough-owned roads. Negotiations for individual developments are also important to determine parking provision for private cars and cyclists, and public space upgrades adjacent to new properties to encourage travel by walking, cycling and public transport. The range of schemes delivered through TfL are approved by different boards; no single board or authority has oversight of everything and there is no overarching strategy for road space reallocation. The relatively decentralised structure means that co-ordination between institutions' divergent targets and responsibilities must take place within decision making processes at differing spatial and temporal scales.

This barrier to co-ordination between borough councils and Transport for London is exacerbated by significant financial constraints: local authorities' core funding from government reduced 63% between 2010-2019 (London Councils, 2019), and TfL's operating grant from central government (approximately £600 million) was removed in 2018. These constraints undermine co-ordination, as each actor has limited flexibility to support modal

shift and expand the capacity of the transport network. With TfL fully reliant on user charges, it is becoming more common to rationalise public transport services that do not generate sufficient revenues to cover their costs. This reduces public transport provision and can lead to growth in private car usage. Borough councils are individually tasked with increasing housing provision and upgrading their road network to support the Healthy Streets Approach. Road reallocation schemes in one borough can often divert traffic to adjacent boroughs, instead of reducing traffic through modal shift. Since each borough have control of the majority of local roads, and also have powers to implement charging schemes, there is a significant risk of traffic displacement to other boroughs.

6.3.2 Conflicting professional and technical ideologies across decision-makers

Differing professional ideologies across technical disciplines underscores many challenges for traffic management, as the accepted 'best practice' for transport planning has transformed over the past forty years, shifting from automobile-centric planning to catering for a range of modes, with greater consideration of public health impacts and traffic safety. While new approaches and technical design standards have been implemented in many cities, the 'predict and provide' planning paradigm is still entrenched in many institutions, appraisal methods and planning practices (Goulden et al., 2014). This is a challenge in London, where the significant differences in 'institutional lenses' between TfL and Highways England (HE), who are responsible for major arterial roads and highways connecting to London, respectively. This is particularly challenging where HE upgrades seek to improve road efficiency by increasing capacity, creating more traffic that eventually ends up on London's roads, where the transport agency take the alternate approach of improving efficiency by limiting traffic and enabling modal shift to public transport, walking or cycling.

Ideological differences are a particularly difficult barrier to co-ordination because they treat transport 'problems' differently, which directs them to opposing solutions. 'Predict and provide' seeks to improve efficiency by expanding road capacity and parking supply, while new approaches seek to optimise road space by restricting private vehicles and shifting travellers for walking, cycling or public transport. This also has implications for property development, as planning requirements for off-street parking influence private car travel. London has seen some progress in the mindsets of property developers, who can be averse to restricting car parking for new residents, and providing facilities for cycling instead.

6.3.3 Disruption from political cycles and participation of elected officials

The last barrier to co-ordination between institutions for road space reallocation arose from political cycles and the involvement of elected officials from different levels of government. While road space reallocation is usually 'a balance of technical appraisal and political dynamics' (London workshop), participants noted that it had shifted to stronger political influence in recent years. Political involvement in road space reallocation comes from local elected officials in borough councils, as well as the Mayor's Office at the GLA. It can take different forms: where certain projects are a political priority, there may be greater scrutiny of

the modelling, and questions raised about the underlying assumptions and methodological choices.

The time scales imposed by political cycles also have a strong influence over the flexibility of different institutions to . Practitioners had a strong awareness of the volatility of politics, and the importance of the Mayor to set the transport agenda and budget. Across London's history, each different Mayor has taken a distinct approach to transport and the priority given to different objectives and modes. While the current Mayor Sadiq Khan is promoting the Healthy Streets approach and goals for public health, sustainable mobility and air quality, this is subject to change in the future under different political leadership. The timing of the political cycle is also important, as the current Mayor has a strong incentive to demonstrate significant progress on delivering the Mayor's Transport Strategy by the end of their electoral term. Additionally, there are often constraints to delivering schemes in the final months of the mayoral term.

Table 3, below, summarises the institutional and organisational barriers, categorised by different types of *policy resources* (Hood, 1986). This table shows how the three barriers to co-ordination in London relate to different types of resources.

Table 3: Summary of barriers to co-ordination to reallocate road space

Policy resource	Conflicting performance targets across institutions	Conflicting professional and technical ideologies	Political cycles and interference
<p>Organisation <i>Physical ability to act directly; limiting factor is capacity</i></p>	<p>Organisational units' priorities and goals are set by performance targets, which steer different organisations towards contradictory targets</p>	<p>Conflicting ideologies are embedded within planning and design approaches, which are used selectively across different institutions.</p>	
<p>Authority <i>Legal or official ability to determine; limiting factor is legal standing</i></p>	<p>Authority to approve schemes is fragmented across institutions, diluting the power to co-ordinate and resolve trade-offs between projects</p>		<p>Political imperatives to show progress within mayoral terms influences the timing of schemes, and possibilities to co-ordinate</p>
<p>Financial <i>Ability to exchange, limited by solvency</i></p>	<p>Financial constraints and related targets to maximise revenue undermine efforts to co-ordinate road space reallocation</p>		<p>The influence of political agendas, such as the fare freeze, limited financial resources and in turn the ability to fund key transport schemes.</p>
<p>Informational <i>Ability to traffic information - figureheadness and having the whole picture. Limited by credibility.</i></p>		<p>Conflicting ideologies permeate the monitoring and data collection by different institutions, leading to divergent pictures of transport network performance</p>	

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 - Lewisham Council

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City portrait: Malmö

Annex to D2.1 report

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1 Summary findings

Malmö is seen as a leading city for sustainable urban development and mobility, with eco-districts in several city neighbourhoods and one of the highest cycling mode share in Sweden. Since the 1990s, the city's focus on sustainable development has allowed significant expansion of the public transport, cycling and walking networks. However, despite the city's success in promoting sustainable development, there are still key challenges to re-allocate road space for more diverse uses. In response, the pressures to accommodate higher population densities, master-planned eco districts are being expanded in the former port area, and the municipality aim to improve prioritisation of road space. This raises several barriers to co-ordination, arising from the divergent ideological views of different institutions and political actors, as well as the fragmentation of planning and design activities, which prevents more 'joined-up' decision making to manage the trade-offs of road space reallocation.

2 Background context: History and economic change

Malmö has long been known as a major trading hub, with high immigration, as the entry point from continental Europe to the Scandinavian region (Patsch, 2015). The city has followed a similar trajectory to many European cities, growing rapidly as a manufacturing and industrial hub in post-war era, followed by an economic downturn and population decline by the end of the 1970s (Anderson, 2014). In the early 1990s, a financial crisis worsened the local economic conditions and there was a dramatic drop in employment (ibid.). The development of Malmö's transport system was influenced by the response to this decline: in the mid-1990s, the city's political leaders set a new strategy to develop the city into a post-industrial economy, focusing on investment and political support for culture and knowledge, accompanied by environmentally sustainable planning and a stronger ecological sensibility. This approach was supported by accession to the European Union in 1995.

The new strategy led to the establishment of a new university in 1998, as well as new residential and mixed-use developments in the former docklands area on the city's waterfront. For the city's transport, the strategy focuses on environmental sustainability allowed substantial investments into cycling infrastructure. Malmö Municipality has 467km of cycle lanes (Ryan et al., 2016) and the highest mode share for cycling across the five MORE case studies. Alongside the local focus on regeneration, culture and environmental sustainability, Malmö has taken a central role in the expansion of the Øresund region, which extends between Sweden and Denmark. The construction of the Øresund Link (tunnel and bridge) in 2000 was the central infrastructure investment facilitating the development of Øresund as an integrated economic region (Anderson, 2003; Thornley & Newman, 1996). The economic advantage of the region lies with the intra-regional connectivity provided by the Øresund Link, in addition to its external connectivity through ports at Trelleborg, Helsingborg, Copenhagen and Malmö, and Copenhagen airport (Hospers, 2007). The Oresund Link enables 75,600 cross-border commuting trips each day, of which 6,000 are by private car (Malmö stad, 2018a). The effects of the 2007 financial crisis had a relatively minor impact on the city's development, compared to the decline of the industrial sectors in the 1970s and 1980s (Baeten, 2012; Holgerson, 2014).

Preliminary desktop research and surveys established the local context for Malmö, covering politics, urban development, transport and local governance arrangements.

3 Governance and political dynamics

3.1 Institutional and organisational arrangements

The city of Malmö is the largest of 12 local governments in the Greater Malmö metropolitan area, and the capital of Skåne County. Each municipality in the metropolitan area is composed of districts, with five in Malmö: Väster, Innerstaden, Norr, Söder and Öster.

Table 1: Institutions responsible for road space allocation in Malmö

Jurisdictional scale	Institution	Organisation type	Responsibilities
Municipal	City of Malmö	Municipal authority	Land use and transport planning. Own and maintain local roads.
County	Region Skåne	County council	Co-ordination of public transport, business development, culture, infrastructure, social planning, environmental and climate-related issues in Skåne. Governance of hospitals.
County	Skanetrafiiken	Regional transport agency	Public transport planning and procurement
-	Øresundståg	Joint venture of regional public transport companies	Passenger train network operating across Øresund Link
National	Swedish Rail Administration	National authority	Own and maintain railway lines
National	Swedish Road Administration	National authority	Own and maintain national roads
National	Swedavia AB	State-owned company	Own and operate Malmö-Sturup airport

3.2 Political context

3.2.1 National

Since the 2000s, the Social Democratic Party (centre-left) has repetitively gained the most seats in the Riksdag (the national legislature and the supreme decision-making body of Sweden). Nevertheless, the party has been gradually losing the proportion of seats it obtains each election, from having over 41% of the seats in 2002 to 28.6% in 2018. The second leading party with the most seats throughout the 2000s is the Moderate Party (liberal-conservative).

For a long time, the Riksdag had two major political coalitions: the *Red-Greens* composed of the Social Democrats, the Left Party and the Green Party and *The Alliance* which is based on four centre-right political parties. The 2018 general election in Sweden was a turning point due to the rise of the *Sweden Democrats*, a right-wing populist national-conservative political party who gained 13 new seats, whilst the Social Democratic Party and the Moderate Party lost respectively 13 and 14 seats. Following the election, the Social Democrats negotiated support of the Liberals and the Centre Party, breaking up the Alliance.

There has been two prime ministers from the Social Democratic Party (1996 - 2006 and 2013 - incumbent) and one prime minister from the Moderate Party (2006 - 2014). They are

elected by the Riksdag. The next general elections, where members of the Riksdag are elected, as well as the regional and municipal elections will be held in 2020.

3.2.2 Local and regional

At the local level of Malmö, the Social Democratic Party have long held the majority in the Municipal assembly (kommunfullmäktige), apart from several short periods during the 20th century. They currently hold around one third of the seats. In the last 25 years, the two mayors in office, Ilmar Reepalu (1994-2013) and Katrin Stjernfeldt Jammeh (2013 - present) are both from the Social Democratic Party. The Moderate Party came second throughout the elections, gaining around one quarter of the seats in the assembly. At the regional level, in the Skåne Regional Council, the Social Democratic Party has held the majority since the 2000s, except for 2010 when the Moderate Party won the majority by a seat. The Social Democratic Party's share of seats has declined gradually, from 42.9% in 2002 to 26.5% in 2018.

4 Transport and urban development vision and policy objectives

4.1.1 Transport culture

Malmö has a strong historical cycling culture with the Malmö Municipality introducing its first cycling plan in the 1970s. All generations use this mode, even older ones. In interviews conducted with an older public, cycling was described as “comfortable, practical, inexpensive and lovely” (Ryan et al., 2016: 42). In fact, Malmö has 467 km of cycle paths and cycling has become a priority. Malmö is known for innovative cycling infrastructures, such as the use of radar sensors at crossings that automatically give the green light to approaching bicycles (Anderson, 2014: 19; Ryan et al., 2016). In addition, Swedes have a high ecological awareness in regards to the travel mode they adopt (Haustein and Nielsen, 2016). Travel mode share comprises 40% private motorised vehicles, 21% public transport, 15% walking and 22% cycling (Malmö stad, 2016). Car ownership in Malmö is 363 registered vehicles per 1000 people (Malmö stad, 2017).

The place of the car has not however disappeared and its use is unequal amongst genders. Every day, 31,000 people commute from Malmö to other areas and 62,000 to Malmö, with 62% of the latter carried out by private cars (Malmö stad, 2017). Between 1978 and 2006, the distance of travel increased in Sweden as daily activity spaces became more scattered which led to an increase in the motorisation and individualisation of transport modes (Frandsberg and Vilhelmson, 2011). Since 2006, this trend has changed and been generally reversed. In Sweden, like in many other countries, men travel by car more than women, use public transport less (Johansson-Stenman, 2010). There is a significant correlation between car use and household income, however, surveys show that public transport use is not perceived as a ‘lower class’ option. Public attitudes favour public transport, and unnecessary car use is seen as undesirable (Ashmore et al., 2019).

The city of Malmö faced challenges to comply with EU Air Quality regulations for NO2, however since 2006, specific action plans have been implemented to reduce emissions and the targets have been met. The municipality has also set a target of becoming fossil-free by the 2020 - this initiative requires that the municipality's on-road transport must not use fossil fuels, implying a transition to electric vehicles, walking and cycling (Taavo, 2016).

4.1.2 Vision for transport and urban development

Malmö's vision for transport development is set out in the city's Sustainable Urban Mobility Plan, adopted in 2016 (Malmö stad, 2016). To support the overall goal to become a socially, environmentally and economically sustainable city, the plan aims to change the mode share for inhabitants' trips and commuting.

Table 2: Objectives for transport development in Malmö (Malmö stad, 2016)

Objectives	Interventions
<ul style="list-style-type: none"> - For inhabitants' trips, increase cycling mode share to 30%, public transport to 25%, and reduce car trips to 30% - For commuting trips, Increase cycling mode share to 5%, public transport to 45%, decrease car trips to 50% of inhabitants' trips 	Sustainable Urban Mobility Plan (SUMP) = Pedestrian Programme (2012-2018) = Bicycle Programme (2012-2019)

Malmö's vision for urban development is set out in the city's Comprehensive Plan (City of Malmö, 2018). The plan's main objectives are for Malmö to be a socially, environmentally and economically sustainable city, as well as an attractive place to live and work. To achieve these goals, the city plans to accommodate growth through mixed-use intensification of the existing city, with a strong focus on green spaces, and transport by walking, cycling or public transport. Intensification is concentrated around public transport nodes and major corridors, with prioritised growth areas to the north-east and south-west of the city centre. Regional development is also a priority, since the Oresund Bridge supports substantial commuter flows to and from Copenhagen. New rail links are being investigated to improve connectivity across the Oresund Region, including a 22km Oresundsmetro underground connection, linking Malmö and Copenhagen.

Table 3: Objectives and strategies for urban development in Malmö (Malmö stad, 2016)

Objectives	Strategies
Mainly grow by inward expansion, within the city's outer ring road to create a close, dense, green, mixed-function city	<ul style="list-style-type: none"> - Reduce resource consumption through higher-density urban development - Build for proximity Develop mixed-function areas and vibrant city life
Forming Copenhagen-Malmö-Lund into a coherent metropolis and generating a vibrant economy in the Oresund region	<ul style="list-style-type: none"> - Establishing further connections over the Oresund Strait - Continuing to develop the city's attractiveness for families and workers - Creating space for a diverse commercial sector
Developing the city as a venue for culture and democracy	<ul style="list-style-type: none"> - Increasing and improving social spaces - Improving security, safety and equality - Improving public health - Encouraging political participation

5 Road space re-allocation: new demands and barriers to co-ordination

This section summarises the findings of preliminary surveys and stakeholder workshops conducted with representatives from key local, metropolitan and national organisations responsible for the governance, planning, investment and regulation of road space.

First, it explains the institutional and organisational arrangements for road space reallocation, and the new demands for more diverse uses of road space. Second, it discusses barriers to co-ordination across different institutions.

5.1 What are the new demands for, and challenges with, alternative or more diverse street uses?

5.1.1 Higher density development

The city of Malmö has grown substantially in recent decades, increasing in population by 43% between 1990-2017 (Malmö stad, 2017a). Further growth is projected with an additional 100,000 residents by 2030. To meet objectives for social, economic and environmental sustainability, the city's plan aims to accommodate growth through intensification within the current built-up area, within the outer ring road. However, higher density developments put more pressure on existing transport corridors to accommodate higher flows of people travelling on foot, by cycle or public transport, or in private vehicles. Alongside this approach, goals to improving the quality of the urban environment through urban greening, street furniture and recreational spaces. These objectives create tensions and possible trade-offs for road space reallocation, to provide for different types of activity and travel modes.

5.1.2 Prioritisation across transport modes

Workshop participants emphasised that one of the key challenges for road space re-allocation is *prioritisation* across different activities and modes. The city's transport network was over-capacity for many years, with free-flow traffic at most times of day. Until now, the city has been able to add new infrastructures to the road corridor to support growth. Now that there is more noticeable traffic congestion during morning and evening peak periods, prioritisation of space is essential to optimise movement and quality of place. With little history of road space prioritisation, negotiating the trade-offs and tensions between modes and different street activities is a key challenge, both institutionally and politically.

5.2 How have these (new) demands been addressed so far, during planning and implementation stages?

5.2.1 Master-planned eco-districts

A significant share of Malmö's future growth will be accommodated in master-planned developments in former industrial sites on the city's waterfront. The first of these redevelopments included Bo01 neighbourhood, which received international recognition for its ambitious targets for sustainability and reduced carbon emissions. The planning process for Nyhamnen, an extension to the Western Harbour area, is currently underway. Figure 1 shows the planned extension, in white, to the existing Western Harbour eco-district (background, top right).



Figure 1: Planned Nyhamnen extension, with Bo01 neighbourhood in the background (Image: Malmö stad, 2019)

Western Harbour also adopts ambitious goals for environmentally-sustainable development and is predominantly delivered by private sector developers. The relatively high densities

planned for this area are part of the city's approach for sustainable urban development, but also create challenges for road space allocation. Developers negotiate the road space allocation at street-level, and also contribute to infrastructure costs.

The allocation of car parking in new developments is a critical factor in encouraging modal shift to walking, cycling or public transport. Western Harbour initially had a maximum of 0.8/household, but they had to remove this as there was too much opposition, particularly with high-income residents demanding parking for their cars. Car parking is usually provided through city-owned parking lots, and not within new residential or mixed-use buildings. Providing adequate public transport services is also important to encourage residents not to travel by car; this is currently a challenge for Western Harbour, as it does not have good connections to the regional bus service.

5.2.2 The City Package national investment programme

A national investment programme (2018-2031) to support growth in Malmö will deliver a large package of transport schemes across the city, on the condition that the city develop housing in areas with improved accessibility. A key part of this package is the extension of bus rapid transit (BRT) service, the Malmö Express, along five new lines. These lines will provide rapid, reliable and frequent services to five new lines, including links to Western Harbour. Since the BRT routes follow existing road corridors, the new lines create challenges for road space reallocation, insofar as the corridors must allow right-of-way for buses while also catering for local activities, and safety for pedestrians and cyclists. The time frame within which the BRT scheme must be delivered, by 2021, also puts pressure on planning and implementation to resolve conflicts as quickly as possible. The City Package also provides significant investment for rail transit links to outer municipalities, and cycling network expansion to support increased modal shift to cycling within the city (Malmö stad, 2018c).

The BRT service expansion seeks to meet social objectives as well as supporting growth. New routes aim to improve accessibility for areas of the city that are currently poorly-connected and have significantly worse social sustainability outcomes. For example, life expectancy for populations living in the western area of Malmö is seven years higher than the east. There is a strong government ambition to address this issue, with a Commission for a Socially Sustainable Malmö established in 2018 (Malmö stad, 2018d), however the recommendations of this initiative are yet to be fully operationalised in transport investment and planning.



Figure 2: Malmö Expressen bus service (Image: Illustration, C2)

5.3 Barriers to co-ordination

Efforts to re-allocate road space require co-ordination across institutions and their respective processes, which can be challenging where institutions are fragmented across different sectors and spatial scales. Co-ordination is a challenging task for policy. It requires that adjustments are made for sets of decisions so that the negative consequences of any single decision for other decisions are avoided, counterbalanced, outweighed or reduced (Lindblom, 1965). Barriers to policy coordination arise for a range of reasons, including specialisation of tasks, power relations, performance management, beliefs and ideologies, politics, accountability, and incentives for organisations to protect their own ‘turf’ in terms of budgets, policies or staff (Guy Peters, 2018).

The workshop activities and interviews identified three key institutional and organisational barriers, explained below.

5.3.1 Divergent ideologies on the priority given to private car travel

Despite a relatively high level of travel by public transport, cycling and walking in Malmö, there are ideological differences over whether the city should plan to accommodate private cars. These ideological differences span across the planning of street corridors as well as parking regulations for workplaces and residential areas. Divergent views on the priority given to private cars became apparent where planning documents and strategies that were nominally committed to reducing car use, subsequently were changed or removed, to favour private vehicles. This practice shows the tensions between sustainability as a general objective for the city, and the impacts of specific road reallocation schemes that are necessary to meet them. To counter the resistance to reducing space for cars, the municipality has had some success in demonstrating to local businesses that expanding infrastructures for cyclists and pedestrians has a positive impact on revenues, countering the claim that reducing car parks has a negative impact on retail activity. However, it is still not politically acceptable to adopt explicit goals of slowing down cars.

As the city's approach to transport planning has consistently accommodated private vehicles, alongside the expansion of cycling and public transport infrastructures, the lack of prioritisation to-date has accommodated different ideological views without significant conflict. With the growing need to prioritise traffic flows, as the city becomes more densely populated, these opposing views are a key barrier to effective co-ordination across institutions. There is a generational divide on this ideology, with younger populations more interested in traveling by public transport instead of cars. Additionally, migration patterns across the metropolitan influence the public's expectations to travel by private car. It is increasingly common for higher-income families to shift to outer suburbs, and travel back into the centre for work and to take children to and from school and other activities.

5.3.2 Specialisation of land use and transport, across practitioners and decision-makers

Another barrier to co-ordination is the specialisation of tasks and fragmentation of authority, across land use and transport planning. Different departments within the municipality and regional agencies develop transport schemes and approve new developments, with key decisions approved by the board responsible for each respective department. This fragmentation of authority across different boards, which include both specialists and non-specialist representatives, creates a challenge for co-ordination across departments and institutions, since boards may have differing views or priorities, that influence their willingness to approve road space reallocation schemes. Additionally, the specialisation of work creates a challenge for individual practitioners to interpret transport and mobility plans that establish goals at a high level, but do not give clear direction on the specific needs for particular localities and routes, creating a dilemma for different technical specialists to interpret these plans into individual schemes. The hierarchical structure within departments means that it is difficult for knowledge and information from the operational level to be shared upward to decision-makers, creating further difficulties in co-ordinating and addressing trade-offs for road space reallocation schemes. A further barrier related to specialisation arises from the goal to shift to electric buses and cars, for which there is currently limited capacity in the energy network to provide charging facilities. At present, the grid operator is investing in new initiatives to make the current network smarter and manage energy loads dynamically, distributing it efficiently. However, as the number of electric vehicles and demand for charging points grows, there are challenges to co-ordinate demand with energy supply across the city.

5.3.3 Fragmentation of political decision-making

The final barrier to co-ordination arises from the interactions between local politicians and civil servants, in relation to transport planning and road reallocation schemes. This happens alongside formal public engagement and consultation processes, and since consensus is very important in Swedish politics, political deliberation and negotiation is an important and robust process. Political actors can influence decisions of road reallocation schemes, sometimes in very general terms, and sometimes relating to specific details. Political actors are not involved in all schemes, it is often determined by the interests of their constituents. In recent years, the growth of traffic congestion in the morning and evening peak periods led to

complaints from residents, and more reactive responses from politicians to try and address these concerns. Car drivers appeared to be more effective at voicing concerns to politicians, compared to other road users. Additionally, Malmö’s road network has been over-capacity, relative to the population, over recent decades. Traffic congestion is a relatively new phenomenon for local residents, and the public generally expect of free-flow traffic when they travel around the city. This means that the public response to congestion is stronger than it would be in larger cities.

The imperative to prioritise road space across modes, mentioned in previous sections, is also a challenge for politicians as they seek to meet the needs of different road users. The negative impact of removing space for specific modes or activities would likely trigger a complaint from local residents. The relationship between civil servants and politicians is relatively hierarchical, and city officials are usually compliant with politicians’ demands. Department leaders have direct access to politicians, and communication of new schemes is very important to transform technical interventions into ideas that can be understood in political terms.

These barriers result from a lack of policy *resources*, summarised in Table 3.

Table 3: Summary of barriers to co-ordination to reallocate road space

Governing resource	Divergent ideologies on the priority given to private car travel	Specialisation of land use and transport, across practitioners and decision-makers	Disruption from political cycles
Organisation <i>Physical ability to act directly; limiting factor is capacity</i>		Separation of technical activities across different technical specialists and decision-makers limits the capacity to co-ordinate for planning and implementation	
Authority <i>Legal or official ability to determine; limiting factor is legal standing</i>	Approval of schemes is influenced by the views of decision-makers, which vary widely across different departments and institutions.	Authority to approve schemes is fragmented across different boards, undermining co-ordination across interventions	The relations between political actors and civil servants limits their authority to deliver schemes
Informational <i>Ability to traffic information - figureheadness and having the whole picture. Limited by credibility.</i>	Metrics and indicators reflect views on supporting private car travel, and thus the recognition and understanding of other modes and non-travel activities		

6 Bibliography

6.1 Primary sources: Interviews and other contributions

6.1.1 MORE Workshop, May 22-24, 2019

- 2 Facilitators from Sciences Po and University College London
- Participants from the following organisations:
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 - Real Estate, Streets and Parks Department
 - City Planning Office
 - Environment Department
 - Real Estate, Streets and Parks Department
 - Skånetrafiken (Regional Public Transport Authority)
 - Trafikverket (National Transport Administration)

6.1.2 Face-to-face or phone interviews

- Representative of Malmö stad - Real Estate, Streets and Parks Department
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