Transforming Urban Transport

Political Strategies and Tactics

June 2018

Transforming Urban Transport: The Role of Political Leadership (TUT-POL) seeks to advance our knowledge of how, when, and where political leadership has been critical to the successful implementation of path-breaking transportation policies. The project has done so through case study research of 8 democratically governed cities around the world: Los Angeles, Mexico City, New York City, Paris, San Francisco, Seoul, Stockholm, and Vienna. Under the direction of Professor Diane E. Davis, TUT-POL is hosted at the Harvard University Graduate School of Design (GSD) and is sponsored by the Volvo Research and Educational Foundations (VREF).

The Volvo Research and Educational Foundations
The Volvo Research and Educational Foundations inspire, initiate and support research and educational activities promoting sustainable transport for fair access in urban areas, with the aim to nurture processes of change and transformative capacity. Through the Program called "Future Urban Transport – How to deal with complexity" (FUT) VREF invests in research for the purpose of contributing to new ideas and solutions within the complex structure underlying the design of sustainable transportation systems in cities. The challenge is to find urban transport solutions that will provide mass accessibility, while at the same time radically reducing transportation's negative local and global environmental and climate impacts. The FUT Program's thematic areas include Mobility and Access in Cities, Urban Freight, and Change Processes: Governance, Leadership and Financing. VREF launched "Transforming Urban Transport – The Role of Political Leadership" in 2013 as part of the latter.

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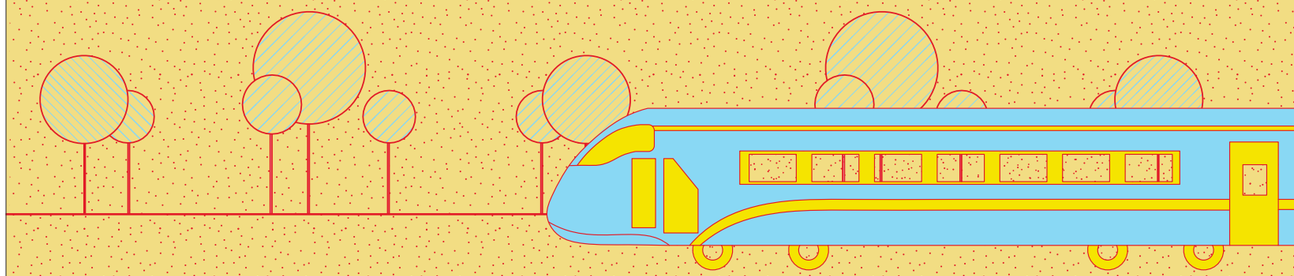


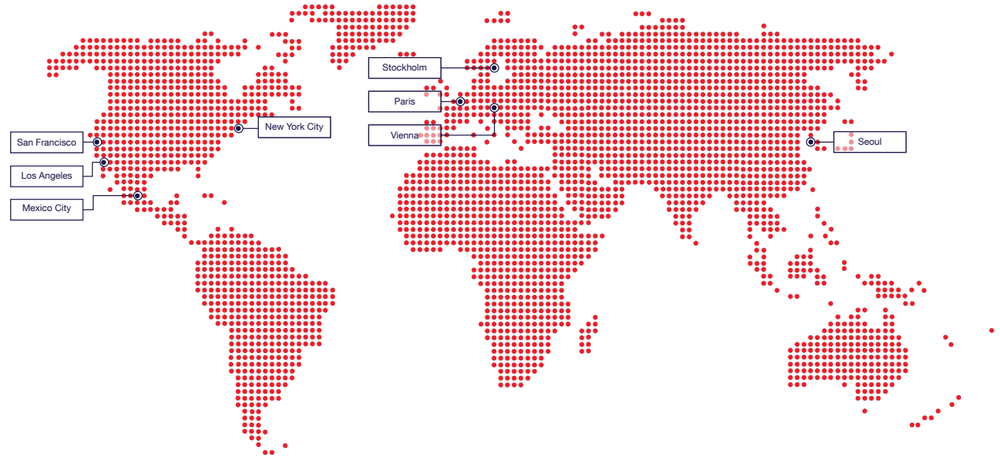
About TUT-POL

The project for Transforming Urban Transport – The Role of Political Leadership (TUT-POL) emerged as a response to the shared realization that, compared to the wide array of public options to promote sustainable urban transport, knowledge of how to achieve these aims remains sorely lacking. Answering a call to generate actionable knowledge on process as much as outcome, the TUT-POL project closely examined how obstacles to change were overcome in eight different cities that sought to introduce path-breaking transportation policies. Each of the (8) case studies detailed how proponents of new transportation initiatives confronted a range of administrative, fiscal, environmental, and political obstacles, using leadership skills, technical resources, negotiation capacities, and a range of governance styles and tactical maneuvers to successfully overcome entrenched opposition and guide good ideas from the drawing board to the streets.

The research design and methodology, besides being case-based, was also international and comparative. Although all are large and well-known cities (see figure on next page), our cases exhibit regional variation in terms of political systems, cultures, and histories as well as time frames of industrialization and democratization. The eight case studies further cover a range of transportation innovations, including those aiming to enhance public transit systems, modify vehicle and traffic management operations, repurpose roads and other urban spaces away from their initial function as vehicle travel corridors, and turn sidewalks and city streets into more pedestrian and cycling-friendly places. This case variation allowed us to draw larger analytical insights about the conditions under which certain strategies and tactics are employed, leading to more robust findings about what leads to implementation success and whether certain approaches are most successful in certain institutional or governance contexts, how, and why.

This summary report of TUT-POL project findings is intended for specialists of urban transportation as well as students, scholars, and practitioners of urban policy, urban planning, and urban governance. We hope that by raising their awareness of possibilities, we can encourage greater creativity in their deliberations.

> "Rather than focusing on the same transport policy in multiple cities, and identifying similarities or differences in stakeholder strategies, we took the opposite approach. We selected a range of citles each confronting very different transport challenges, and sought to identify common lessons learned from those actors who enabled transformative change, regardless of which transport issue was at stake."
>
> **- Diane E. Davis**



Case Study Sites

New York City
USA

Livable Streets initiative and restructuring institutional mandates from transport to transit from 2007.

Los Angeles
USA

2008 ballot referendum (Measure R) imposing a half-cent sales tax increase for county-wide transportation investments with strong transit tilt.

San Francisco
USA

Regulatory accommodation of commercial ridesharing starting in 2013.

Mexico City
Mexico

Replacement of independent bus and jitney system with Bus Rapid Transit network on key roadways (2005 – 2014).

Seoul
South Korea

2003 downtown expressway demolition, bus system overhaul, and urban stream restoration.

Stockholm
Sweden

Adoption of congestion pricing on results of a voter referendum following full-scale trial in 2007.

Vienna
Austria

Cumulative public transit improvements and parking management since the 1990's.

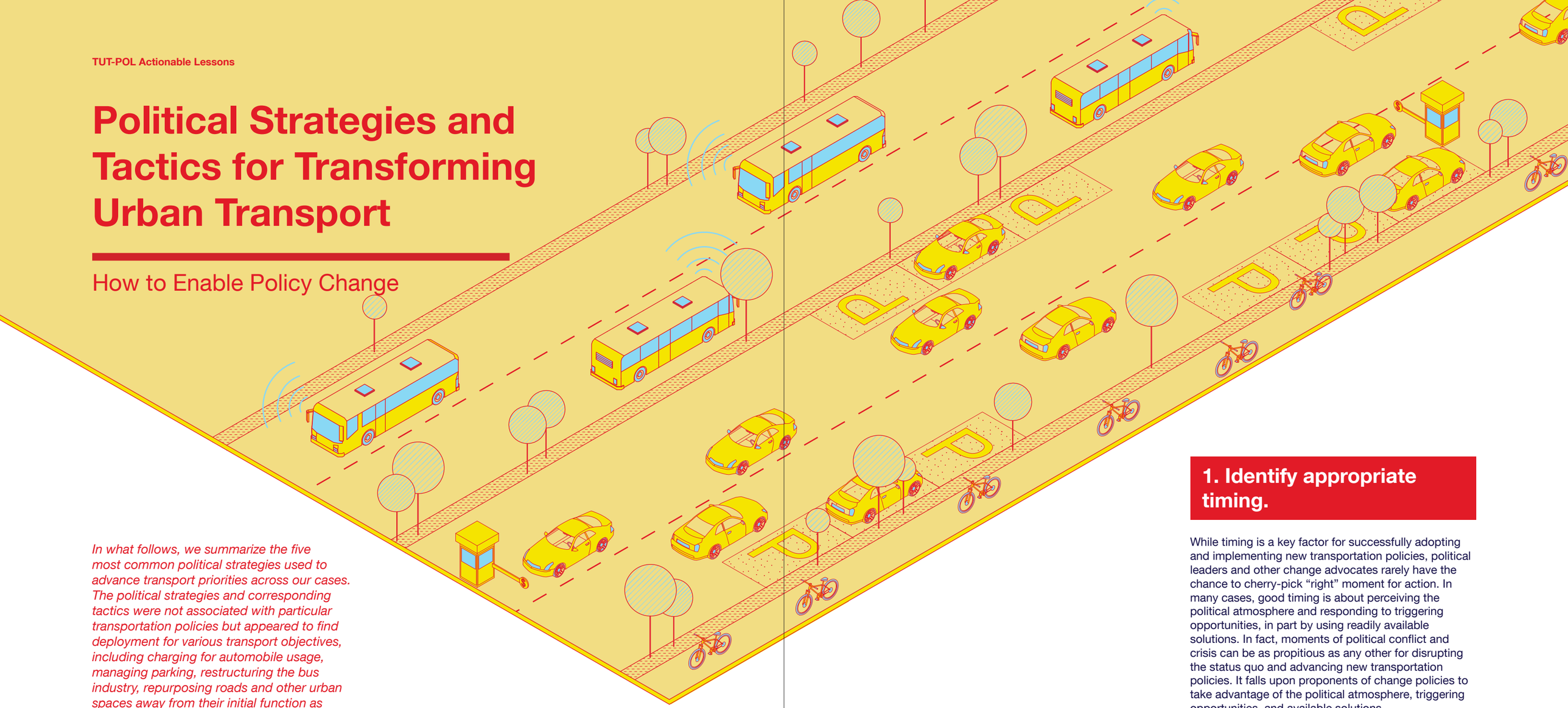
Paris
France

Networked urban transport improvements in Paris and surrounds since 2001.

TUT-POL Actionable Lessons

Political Strategies and Tactics for Transforming Urban Transport

How to Enable Policy Change



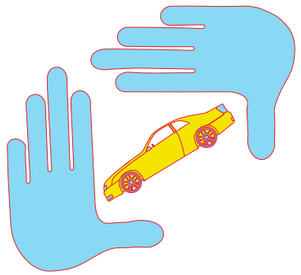
In what follows, we summarize the five most common political strategies used to advance transport priorities across our cases. The political strategies and corresponding tactics were not associated with particular transportation policies but appeared to find deployment for various transport objectives, including charging for automobile usage, managing parking, restructuring the bus industry, repurposing roads and other urban spaces away from their initial function as vehicle travel corridors, and introducing multiple measures to achieve peak car usage.

1. Identify appropriate timing.

While timing is a key factor for successfully adopting and implementing new transportation policies, political leaders and other change advocates rarely have the chance to cherry-pick “right” moment for action. In many cases, good timing is about perceiving the political atmosphere and responding to triggering opportunities, in part by using readily available solutions. In fact, moments of political conflict and crisis can be as propitious as any other for disrupting the status quo and advancing new transportation policies. It falls upon proponents of change policies to take advantage of the political atmosphere, triggering opportunities, and available solutions.

2. Strategically frame the issues.

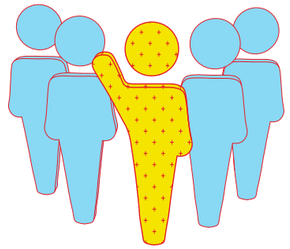
Communication about the gains that will accrue is as critical to policy adoption and implementation as the technical and operational details of transportation policies and projects. However urgent and important a given transport priority, any proposed intervention will compete with myriad other societal issues requiring policy attention. In a situation of limited public resources or when people encounter large



amounts of information on a day-to-day basis, it can be difficult to generate enthusiasm for targeted transport changes. Across our case studies, transport innovations and policies were most likely to gain traction when framed in ways that garnered public attention, salience, support, and active participation. Communication efforts typically connected transport issues and policies to broader urban visions and livability goals, using terms other than mobility—for instance, the language of public safety, environmental sustainability, and economic development. Messages also tended to focus on what would be gained rather than lost. These framing strategies helped broaden public appeal while also bringing new actors “to the table” capable of leveraging existing policy resources and building momentum.

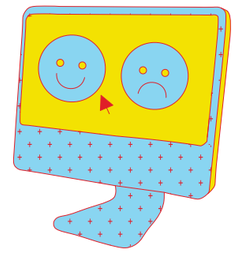
3. Assess and enable stakeholders.

Changing cultural norms around diversity and inclusion and broadened access to information communication technologies have enhanced demands for democratic engagement and accountability in public decision-making. Such processes can slow or stall transport policy change. In such conditions, political officials and planners can advance transport policy aims by proactively engaging existing civic activism in proactive, mutually enforcing, co-productive ways, including in the framing of larger policy objectives. This will entail identifying critical stakeholders who might oppose as well as support such changes, assessing which actors might participate at various levels of decision making and different phases of the policy process, and reaching out to untapped potential allies as needed. Appealing to the existing interests and needs of stakeholders can help garner their participation and support. In some cases, anticipating and pre-empting stakeholder resistance through selective engagement in varying public and private settings can reinforce the potential for change.



4. Integrate technical expertise.

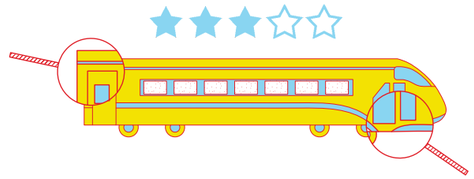
Data and technical expertise may be ubiquitous, but they can be better utilized in publicly accessible and politically salient ways to communicate the value of transportation innovations and generate support for change. A growing number of cities are leveraging real-time transit data and traffic statistics to better integrate transit networks and fare collection systems or share information with users and passengers about



what is working (or not) in urban transport. Others are incorporating opinion surveys and ballot referenda to pilot public support for transportation change policies. Recruiting and empowering a technical team as committed to public engagement as to the nuts and bolts of transport operations will lead to better packaging and dissemination of critical information. This can appeal to political constituents and other key actors, while also potentially widening public support for transport change. In addition to technical experts from the private sector, city departments, and state agencies, civil society organizations can advance such aims by contributing data metrics, research insights, and local knowledge about citizen preferences.

5. Proactively assess policy response.

Before formalizing new policies, it can be useful to minimize the uncertainty – whether real or perceived – bound to be associated with any fundamental change in transport services. Demonstration projects allow citizens to directly experience the potential gains associated with transport policy change, even as they can also help policymakers avoid unanticipated problems. In several of our cases, the advocates of change obtained an opportunity to proceed by offering temporary pilot projects, which could be (and sometimes were) easily abandoned if they failed to attract adequate usage and support. The temporary nature of a proposed change could partly stem public opposition while enabling program experimentation, learning, and improvement. Likewise, temporary projects that produce visible changes and improvements can help quell controversy and generate positive media attention. By beginning with small, highly visible projects that can be quickly implemented and will readily generate noticeable results, it is possible to establish momentum for a larger agenda.



New York City

From Congestion Charging Failure to Reimagining and Reconfiguring City Streets

Over the last ten years and under two different mayors, New York City has made its streets safer, more attractive, and more appealing for pedestrians and bicycle users. Since 2007, New York City's Department of Transportation (NYC DOT) has converted more than 40 acres of city streets into more than 70 new pedestrian plazas in locations that range from world-famous commercial centers to little-known neighborhood business districts. Since 2007, NYC DOT has also built more than 400 miles of interconnected bicycle lanes and launched Citi Bike, the world's largest unsubsidized bike-share system. While NYC's efforts drew heavily on approaches pioneered in European cities, the speed and scope of the city's efforts are noteworthy. The Bloomberg Administration (2002- 2013) only took up these ideas from the latter half of its second term while the de Blasio Administration (2013-present), which had significantly different priorities, not only continued many previous policies but also launched an ambitious effort to greatly reduce the number of pedestrians, cyclists, and motorists killed or seriously injured in crashes. All these policies represent a marked shift for NYC DOT, which until the mid 2000s generally focused on optimizing the flow of motor vehicles on the city's streets. While pressure for such changes had been building for several years, the Bloomberg Administration did not embrace them until the release of PlaNYC, a comprehensive long-range plan released in April 2007. That plan's transportation components also included a call for imposing congestion charges in Manhattan (and using the revenue to upgrade and expand the city's transit system). While the pricing plan had strong support from businesses and residents in the city's core, vehement opposition in the city's outer boroughs and nearby suburbs convinced leaders of the state legislature – which had to approve the plan – not to bring it up for a vote. In the wake of that defeat, the NYC DOT focused on the pedestrian and bicycling elements of PlaNYC, which did not require state authorization or funding.

This is a story of how and why a public agency expanded and changed its institutional mandate and operations from a narrower preoccupation with traffic management to a wider range of transit concerns, thus allowing for new arenas of intervention and policy action that ultimately transformed city streets. Although the newly reconfigured DOT's initial concern was to prioritize pedestrian and cyclist uses of repurposed city streets, these small-scale changes served as the first steps towards implementing a comprehensive long-range plan to promote the city's urban growth and economic development.

Strategic Actions.

Moving beyond conventional definitions of transportation in ways that made urban livability concerns as important as traffic flows in the management of street spaces, and in ways that connected these priorities to the city's overall branding strategy and global aspirations.

In New York, pedestrian and bicycle-friendly policies were codified into PlaNYC, the city's first comprehensive long-range plan with a stated goal of reducing the city's carbon footprint while accommodating another 1 million residents by 2030. The plan strongly emphasized the importance of maintaining the city's global competitiveness and economic growth through urban infrastructure improvements and redevelopment projects that would make the city more vibrant, livable, and attractive to creative talent. It was further unveiled by Mayor Michael Bloomberg on Earth Day (April 22, 2007), a highly symbolic date for environmentalists.

Tactical Actions.

Borrowing successes from other world cities with reputations as global leaders in quality of life indicators, and modifying these templates to fit the local context.

NYC DOT gained many of its ideas from European cities and countries—Copenhagen's street re-makings, London and Stockholm's congestion pricing, Paris' beaches along the Seine and bike share program, and Sweden's Vision Zero program—as well as external consultants such as the Danish urban designer Jan Gehl and the eminent American architect and urban planner Alexander Garvin—but adapted them to the local context.

Using smaller-scale prototypes and trials to overcome political and bureaucratic inertia.

NYC DOT initiated the Liveable Streets initiative constructing a series of pedestrian plazas using cheap and makeshift materials such as paint, planters, and removable street furniture. The temporary nature of the changes allowed them to cut through bureaucratic red tape, temper resistance and build public support, and enable policy learning and adaptation.

Distributing responsibilities and opportunities for implementation across various neighborhoods so as to generate step-by-step community buy-in while also slowly building a constituency for citywide policy change.

NYC DOT structured a competitive application process whereby local Business Improvement Districts and other neighborhood-based organizations would plan and maintain the plazas with the support of the DOT and respective Community Boards. Neighborhood groups were then encouraged to propose the reallocation of certain street spaces from motor vehicle to pedestrian plaza uses, and to raise private financing for the upkeep and management of such plazas. Neighborhoods that so preferred, on the other hand, could ignore the plaza policy.

Promoting new institutional mechanisms for identifying and connecting planning and policy priorities across various government agencies.

In redefining DOT's mission and approach, the Deputy Mayor for Economic Development and Reconstruction, Dan Doctoroff, structured an interdepartmental planning effort under the direct guidance of his office and with input from key civic leaders.

Both Mayor Bloomberg and the NYC DOT Commissioner, Janette Sadik-Khan, encouraged risk taking and policy experimentation among city staff to the extent it was based on evidence and data.

Using data and evidence to gauge and/or strengthen the case for the introduction of new policies.

The Bloomberg administration repeatedly made use of polling data to gauge voter preferences and public sentiment on various policy issues and debates, as did partner organizations like Transportation Alternatives. Ultimately, the latter's determination that safety was the preeminent resonating factor with the public and ensuing reframing of pedestrian and cycling initiatives to emphasize safety helped sustain policy changes under the de Blasio administration.

Los Angeles

Coalition Politics and Transit System Expansion in the Decentralized Region

In November 2008, two-thirds of Los Angeles County voters approved "Measure R," a ballot measure imposing a half-cent sales tax increase for transportation. The measure, which planners estimated would generate $35-$40 billion for transit and highway projects over the next 30 years, was noteworthy for several reasons. First, it raised more than twice as much revenue as any other transportation ballot measure passed in the United States since at least 1990. Second, 67.93 percent of the voters supported it, which meant it also passed by a much larger margin than any major U.S. transportation tax question in at least two decades. Third, its success was striking because California has long been a hotbed of voter resistance to higher taxes, at least since 1978 when state voters adopted Proposition 13, which sharply rolled back local property taxes throughout the state, limited future increases, and generally required that new local taxes had to be approved by two-thirds of the voters. Finally, Measure R passed at the county level (with a population of about 10 million) in a famously sprawling and politically fragmented region known for its auto-centric pattern of urban development. The final package, approved by Metro's board (for submission to the voters) in July 2008, included rail, bus, and highway projects but with a strong transit tilt. While moving forward with the proposed projects, Metro placed another proposition before voters in November 2012, asking them to extend Measure R's 30-year sunset provision, so as to make possible a larger amount of borrowing and accelerate the pace of transport improvements. Failing by less than a percentage point, Metro's leadership, with enthusiastic backing from a coalition of pro-transit supporters who called themselves "Move LA," approved a follow up ballot measure for November 2016 asking voters to extend the Measure R half-cent sales tax for an additional 18 years (until 2057) and/or to approve a new half-cent sales tax for 40 years.

This is a story of strong leadership emanating from the Los Angeles Metropolitan Transportation Authority (Metro), which combined strategic planning and public relations campaigns with broad-based coalition building across key sectors of civil society. By joining forces with a transportation-oriented coalition of labor unions, environmental groups, and business organizations that united under the rubric of a single organization (Move LA), Metro leaders and their allies in elected office mobilized enough electoral support to pass Measure R and thus enhance a longer-term regional capacity for urban transport governance even in the face of temporary set-backs.

Strategic Actions.

Building on long-term policy conversations among well-organized regional interest groups representing a wide range of diverse constituencies (labor, business, and environmental leaders and organizations) and willing to join with public officials in promoting transit measures.

The forces uniting behind Move LA initially came together in 2007 to support subway extension along the Wilshire corridor but later embraced a more geographically dispersed set of investments. The coalition then rallied support from political officials, designed the ballot initiative, and peopled the campaign for Measure R, subsequently promoting the two follow-up measures to extend Measure R.

Assessing who needed to participate in the discussions, when, and in what form — and then engaging these stakeholders in efforts to expand support and narrow opposition.

While finalizing the ballot proposal, Metro's board and senior staff vetted its content with key constituency groups and made modifications in response to objections. They further solicited citizen feedback through a public relations campaign and met with the editorial boards of the region's newspapers as well as key interest group and opinion leaders. In turn, Mayor Villaraigosa and other political leaders reached out to civic and business leaders to raise over $4 million for the referendum campaign. Finally, in conjunction with the informational campaign, targeted advertising campaign, and major newspaper endorsements, Move LA members came out in public support of Measure R.

Framing the definition of the problem so as to generate broader appeal and support.

The ballot initiative was presented as a regional boon rather than a city-led initiative (the latter implying more exclusive interests and benefits) that combined big and small projects in a concerted approach to traffic relief. Through an "Imagine" public relations campaign, the initiative was also presented as an opportunity for citizens themselves to envision a different future.

Recruiting and empowering a technical team to package transport knowledge in a politically-savvy manner.

Under CEO Roger Snoble's leadership (2001-2009), Metro hired a marketing and communications officer and increased the advertising budget to improve the agency's public image and reputation. In preparation for the ballot referendum, the agency hired a polling expert to help gauge public opinion, time the referendum campaign, and tailor contents of the public relations campaign and measure. Further, it hired a respected Democratic operative to manage an advertising campaign highlighting the arguments that recruited polling consultants had shown to be particularly effective, especially among swing voters.

Tactical Actions.

Adopting strategic research and planning practices within the Metropolitan Transportation Authority.

In the early 2000s, in the wake of a major fiscal crisis that caused it to suspend almost all planned projects, Metro's leaders developed a data-focused, revenue-constrained process for developing its Long Range Strategic Plan. In the mid 2000s Metro used this to identify the high-priority projects that it could only afford to build if voters approved transportation-related tax increases.

Assembling a policy package that took into consideration and accommodated socio-economic and geographic differences across the urban area.

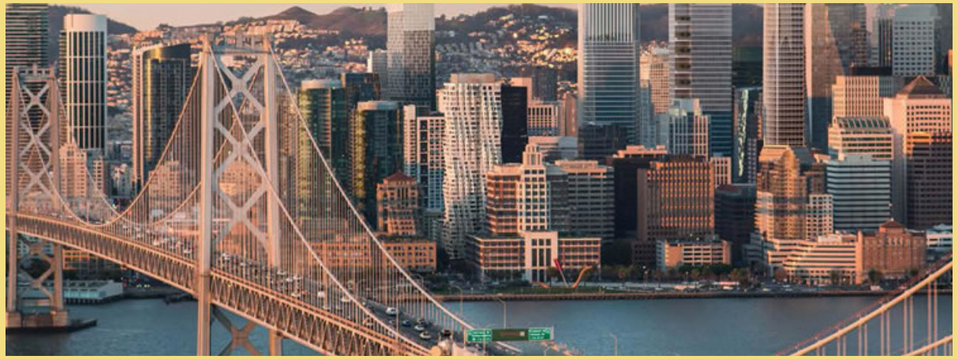
Measure R designated $14 billion in investments for new rail projects and enhanced bus corridors, $8 billion for buses, which carry the bulk of Metro's (largely low income) ridership, and $8 billion for highway projects, most of them in areas far from central Los Angeles.

Working at multiple levels of government (local, regional, state) to draft and pass enabling legislation for the ballot initiative, and then additionally applying for and accessing federal funding to accelerate the speed and scope of projects.

Timing the referendum to maximize favorable results— during a presidential election expected to generate higher voter turnout, particularly among low income and minority voters, which data from polls and prior referenda projected to be most in favor of the measure.

Commercial Ridesharing in San Francisco

From “Rogue” to Mainstream



Only a few years after they were launched in San Francisco, the emergence of privately-owned but publicly-regulated companies such as Uber, Lyft and Sidecar have dramatically changed the global urban transportation landscape, most notably by altering the expectation (and reality) that routine urban transit services for a large urban market can be readily tailored to disaggregated individual preferences via real-time mapping of locational demand. While similar to taxi services, commercial ridesharing has several characteristics that make it preferable for many patrons, including greater ease of summoning services with smart phones using convenient apps and higher availability in many or most circumstances. During periods of highly peaked demand, moreover, they have utilized surge pricing (a form of congestion charging) to balance supply and demand, thereby maintaining their capacity for quick, reliable response to calls for service. In San Francisco, ridesharing companies now provide about 50,000 trips a day, more than twice the number of trips taken by taxi.

This is a story of private sector firms engaging public sector actors in a shared effort to challenge and eventually alter a series of longstanding regulatory frameworks governing personal transportation services, an outcome facilitated by the rescaling of key decision-making authority about transit regulations from the local to the state level, where opposition forces had less traction and where tech firms held more sway.

These dramatic changes are largely the creation of tech-savvy private sector actors, who developed the necessary applications and business models that kept costs low by relying on drivers using their personal cars and personal car insurance. However, to enable these changes, tech companies also needed an accommodating regulatory framework, not just in the face of opposition from the city’s heavily monitored, politically active taxi operators but also under the continued threat of regulatory crackdowns by local and state enforcement agents. In finding room for maneuver, ridesharing firms gained support from San Francisco Mayor Edwin M. Lee, who took office in in 2011 as the “pragmatic” candidate intent on bridging the progressive and moderate factions of the Board of Supervisors. In a city still feeling the impacts of the Great Recession, Lee publicly supported commercial ridesharing as an embodiment of the “sharing economy.” In order to circumnavigate local enforcement requisites, Mayor Lee shifted the jurisdictional locus of debate concerning regulatory activity to the state level—specifically the California Public Utilities Commission (CPUC), which was generally viewed as a more business-friendly venue and where taxi interests typically have less influence. In turn, CPUC Chairman Michael Peevey convinced the five-member commission to begin a rule-making process focused on commercial ridesharing. In fall 2013, CPUC approved regulations which would be applied to a new category of service, “Transportation Network Companies” (TNCs), which imposed obligations related to insurance, background checks for drivers, and vehicle inspections but did not require substantial changes in existing business models. These new rules and the maneuvering that produced them allowed commercial ridesharing to continue and grow in California. Their impact has been so great that both cities and tech firms worldwide have sought to replicate similar regulatory modifications, albeit with varying degrees of success.

Strategic Actions.

Framing the potential benefits of commercial ridesharing through a range of priorities focused on political and economic gains beyond transport.

SF Mayor Edwin Lee voiced public support for commercial ridesharing firms in his January 2013 State of the City address while celebrating them as alternative forms of transportation through the sharing economy. Retaining and wooing technology companies, particularly those involved in the sharing economy, was a central part of Lee’s economic development strategy for the city.

Proactive stakeholder mobilization in the service of bringing a wide array of voices into debate over transportation so as to alter traditional political fault lines of support (and opposition) for transportation change.

Ridesharing firms used email and social media to mobilize potential supporters (a task made easier by the fact that all commercial ridesharing users and drivers register for the service using an email address or Facebook profile), urging them to contact elected officials, attend public meetings, and sign online petitions in support of ridesourcing services.

Shifting the locus of decision making to those regulatory levels of government least likely to be paralyzed by intractable conflicts.

In the face of pushback from local transit enforcement agencies at the local level under his jurisdiction, Mayor Lee rescaled regulatory debates about the propriety of commercial ridesharing to the state level—specifically the California Public Utilities Commission (CPUC), which was generally viewed as a more business-friendly venue and where taxi interests typically have less influence.

Tactical Actions.

Calculated indifference to a regulatory logic that presupposed public sector control of commercial ridesharing services.

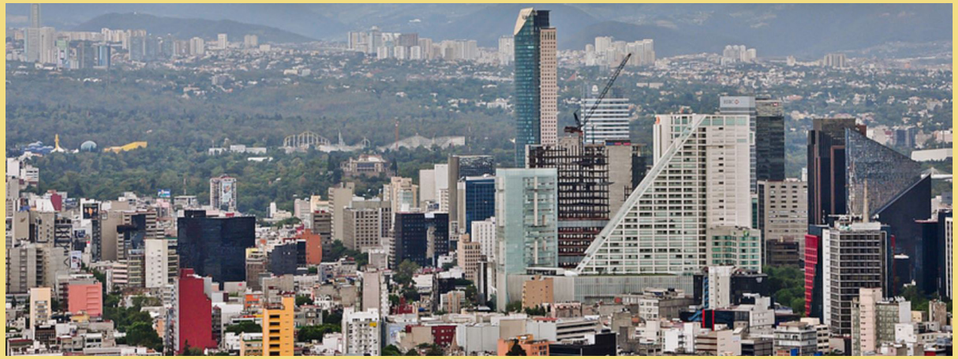
The leaders of ridesharing firms initially argued that they weren’t subject to city or state regulations and could begin operating without regulatory approval since they were only facilitating connections between riders and drivers. Still met with regulators’ warnings and orders to cease operations, they simply ignored them while trying to build support and see if regulators would actually act against them. When they did, they convinced elected and senior appointed officials to support the development of new, more favorable regulations for commercial ridesharing.

Emphasizing the private provision of surface transportation services as a means for keeping public transit costs competitively low.

Commercial ridesharing in San Francisco was an entirely private, for-profit, unsubsidized initiative led by tech-savvy private sector actors, who developed the necessary applications and business models that kept costs low by relying on drivers using their personal cars and personal car insurance.

Mexico City's Bus Rapid Transit

Incrementally Laying the Groundwork for Large-Scale Transformation



In less than a decade, one of the world's largest cities, Mexico City, has created the world's sixth busiest Bus Rapid Transit (BRT) system. Called Metrobús, this still-expanding system now carries more than 300 million passengers a year on six lines that have 125 kilometers of exclusive bus lanes. Compared to the jitney and independent bus services that BRT replaced, travel times in corridors served by the new system have fallen by 40 percent and there are 30 percent fewer accidents. In addition, 15 percent of drivers in corridors served by BRT reportedly have switched to public transit. The improvements have also produced modest reductions in emissions of greenhouse gases and of the pollutants that cause smog. Whereas previous mayoral administrations had relied on heavy-handed state authority to discipline bus and jitney drivers, often with little effect, recent BRT expansions were achieved through negotiation and compromise. Additionally, the creation of Metrobús greatly enhanced the public sector's direct involvement in the planning and territorial management of key transportation services, administrative faculties which had withered over the previous two decades, an outcome that is arguably just as—if not more—important than BRT's impacts on mobility, safety, and pollution. The shift in strategy and the increased capacity to plan and manage transportation has been matched by major changes in Mexico City's surface transit industry, which has transitioned from a system dominated by an unruly and unmanageable set of independent, small-scale operators fighting among themselves to capture revenues to the detriment of service outcomes, to a sector that is more professional, modernized, faster, safer, less polluting, more convenient, and more engaged with the public sector in co-producing better mobility conditions, particularly for those populations who rely on mass or collective transit services.

This is a story of mayorally-led efforts to slowly but steadily discipline private sector transport providers through carrots, sticks, and ongoing negotiations, thus creating room for new transit services while also expanding the public sector's role in transportation planning through BRT implementation and expansion.

Strategic Actions.

——— Linking the timing of changes in bus and jitney servicing to Mexico's democratic transition in ways that generated a wide range of measures that helped solidify public support for a new electoral administration.

Under the initiative of Mayor López Obrador, only the second democratically-elected mayor in the nation's capital, support for BRT implementation came slowly and cautiously, in tandem with a continuation of transportation policies from the previous (Cárdenas) administration and with parallel support for highway expansion. Such moves helped gain the support of affluent, car-owning voters outside the governing party's traditional constituency and demonstrated a commitment to a balanced transport agenda, which helped subsequent BRT introduction.

——— Matching these political objectives with a larger urban policy vision in which transit priorities were framed — in terms of improving air quality, advancing environmental sustainability, and enhancing urban redevelopment of distressed areas of the city—so as to generate broader appeal.

——— Creating a new public agency (Metrobús) charged with planning and regulating privately operated bus services on BRT corridors allowed authorities to avoid being hamstrung by prior political commitments from local officials and agencies to longstanding transport operators.

——— Structuring public consultations to insert issues of transparency and democratic legitimacy into the discussion of new transport policies.

The Ebrard administration set up 1,600 booths across the city at which residents answered a series of yes/no questions focused on environmental issues and partly touching on urban transport, with positive results interpreted as a mandate for change.

Tactical Actions.

——— Borrowing tried and true policy templates from other cities and leveraging external resources to help catapult new ideas for transport onto the public agenda.

Environment Minister Claudia Sheinbaum developed the BRT proposal with programmatic and funding support from a global network of sustainable transport researchers, funders, development agencies, and philanthropies.

——— Generating quick-to-implement, modest, yet highly visible programmatic wins on key corridors in the city.

Despite lower projected ridership and existing public transport options, BRT implementation began with Avenida de los Insurgentes on the basis that it was located in a very prominent area and that political negotiations with the independent buses and jitneys would likely be simpler and less costly. Resultant corridor improvements enhanced support for BRT expansion to additional routes.

——— Appeasing opponents with fiscal benefits without risking program viability.

Once the highly generous compensation granted by the López Obrador administration to private operators for BRT service on Avenida de los Insurgentes proved financially onerous for the city, Mayor Ebrard and his deputies offered lower vehicle scrappage fees and income guarantees to bus and jitney operators in constructing more BRT lines.

——— Combining persuasion and credible threats in negotiating with key stakeholders.

When financial inducements reached their limits in inducing collaboration from bus and jitney industry leaders, city officials exploited divisions and rivalries to outflank uncooperative leaders in favor of dissident groups and threatened existent service operators that they would move forward with new partners in the absence of agreement on new BRT lines.

——— Promoting administrative transparency and efficiency by shifting control over fare collection and revenue redistribution from jitney owners to third-party contractors and the transport ministry.

——— Expanding the financial benefits of public-private partnership arrangements beyond original bus and jitney owners, so as to generate more widespread industry support for the changes.

By including the public bus operator as a participant on the first BRT line, city officials gained the support of public sector workers, accessed useful information on actual costs of BRT operation, and reduced the number of new buses requiring financing by the new private sector BRT operator. When the set-up proved financially unviable for the city, local officials brought in Autobuses de Oriente (ADO), a private inter-urban transport company, as a co-financier and owner for the new BRT company on the next BRT line.

Seoul

Transportation Reform as Enabler of Urban Regeneration

Over the past decade, Seoul, one of the world's largest and densest cities, has transformed a dilapidated elevated highway corridor into a popular and world famous public park, reinvigorated and modernized its ailing bus system, and used both changes to spur a dramatic revival of the city's declining commercial core. Demolishing two major elevated expressways, uncovering and restoring the stream they covered, and transforming the area into a linear park helped spur significant investment into the Gangbuk central business district and transformed it into one of the most popular tourist destinations in the city. Rather than replace the demolished expressways, the city instead modernized the bus network by establishing bus priority lanes, replacing the city's aging bus fleet, integrating bus fares with the city's subway system, implementing the world's first prepaid 'smart card' for all surface transportation modes (including taxis as well as bus and rail transit), and allocating fare revenues among the multiple providers on the basis of their contributions to each trip. Combined, these changes helped produce a 13 percent increase in the average number of daily bus and subway passengers between 2003 and 2010 and led to a decrease in the share of trips by private automobiles, which in 2011 carried less than a quarter of all trips within the city. The reforms also dramatically reduced air polluting emissions and the number of bus-related fatalities and injuries in addition to increasing customer satisfaction with bus services, in large part by making buses more efficient, comfortable and convenient, cleaner, and safer. These changes are all the more noteworthy because they came in the face of opposition from an entrenched bus industry, and neighborhood and political interests, the latter including some national-level elected officials and bureaucrats who had spoken on public record against the Cheonggyecheon project, as well as in the aftermath of failed bus reform efforts in previous administrations. Despite the fact that Mayor Myung-bak Lee had campaigned on a strong economic development and urban livability platform with no mention of bus reform, he nonetheless completed his term having disrupted the status quo by introducing a wide range of interconnected transportation changes in a remarkably short period of time.

This is a story of a strong-willed mayor, whom many associated with the country's authoritarian past, strategically managing collaboration between different agencies and personnel within government structures to implement a wide-ranging set of interrelated transport reforms and urban transformations. Building on skillful leveraging of stakeholder conflict and public engagement with constituencies more historically aligned with the democratic movement than with his own Conservative Party, Mayor Lee introduced fundamental transportation changes that ultimately helped catapult him to the national presidency.

Strategic Actions.

Putting environmental and urban economic development priorities first, with transportation goals initially identified as supplementary.

Mayor MB Lee, amidst increasing voter awareness of and preoccupation with the negative side effects of rapid modernization and economic growth, won by openly and aggressively campaigning for highway demolition and downtown revitalization. The Lee administration couched efforts at highway demolition, stream restoration, and bus reform in an ambitious vision of a new urban and transport landscape centering on the historic downtown and an alternative approach to urban and economic development prioritizing quality of life for local inhabitants while enhancing the city's global competitiveness.

Recasting small-scale and incremental transportation goals in the language of large-scale transformations intended to enhance urban quality of life for all the city's residents.

The Lee administration, while countering protests from opponents of bus reforms, temporarily deferred project implementation while reframing the issue from a single-corridor NIMBY debate to an overall focus on bus system and urban rejuvenation, effectively bringing more supportive constituencies into the public discussion.

Assessing and engaging potential supporters and opponents even before taking a public stand on several key aspects of transportation reform.

While campaigning for mayor, MB Lee engaged the Seoul Development Institute (SDI), a government-owned think tank that had carried out an assessment of the highway demolition proposal. SDI's researchers, in turn, connected Lee's campaign with the scholars and activists who had been calling for demolishing the road.

Structuring both public and private consultations in order to solidify key constituency support for new transport policies.

Upon commencing construction on the Cheonggyecheon project, the city established the Council of Merchants to facilitate discussions with tens of thousands of small-scale retailers over a course of 17 meetings. When excluded street vendors protested, Lee created a Citizen's Committee on Cheonggye Stream Restoration, where members drawn from local vendor organizations, environmental groups, and academia could analyze master plan proposals. In conjunction with highway demolition, the city government created the 20-member Bus System Reform Citizen Committee to facilitate stakeholder dialogue and consensus.

Recruiting and empowering a technical team to package transport knowledge in a politically-savvy manner.

The Lee administration enlisted expert urban policy and planning researchers at the Seoul Development Institute to translate their research findings into actionable proposals for stream restoration. Then during the implementation phase, academic experts on the Citizen's Committee on Cheonggye Stream Restoration helped defend the project against public challenge, in some cases, by writing editorial columns in prominent newspapers.

Tactical Actions.

Highlighting successful cases of similar transport reform so as to generate support from planners and in local policy circles.

Seoul applied lessons from the experiences of Boston's "Big Dig" and Curitiba's BRT—understanding the potentials of simultaneously advancing environmental and economic goals via a single infrastructure project as well as political costs of complex, disruptive, and expensive projects.

Linking support of transformative policies to career priorities of key city officials, both bureaucrats and elected office-holders.

Mayor MB Lee aligned the incentives of local officials with his vision of the Cheonggyecheon project by highlighting electoral advancement opportunities for aspiring city councilors and national assembly members. He also reorganized the transport planning bureaucracy into two streams, leaving day-to-day management to the career bureaucrats while creating a 300-person "Transportation Improvement Task Force," populated by specialist planners, architects, and engineers tasked with reimagining the future of Seoul's bus system in close collaboration with the Seoul Development Institute.

Generating quick-to-implement, modest, yet highly visible programmatic wins.

Mayor MB Lee kicked off his ambitious agenda of highway demolition, urban stream restoration, and bus system overhaul with the relatively easy and

swift-to-implement but highly demonstrable task of replacing a complicated traffic interchange in front of Seoul's City Hall with a park.

——— Appeasing opponents with fiscal benefits without risking program viability.

While city officials offered temporary and permanent relocation spaces to Cheonggyecheon area retailers, they refused to compensate them for additional losses incurred during the construction process (on the basis that the vendors would reap additional business upon project completion) or delay the construction schedule.

——— Establishing public-private partnerships in ways that would generate long-term benefits to both participating firms as well as the consuming public.

The city partnered with a subsidiary of the JCDecaux Group to cover the cost of bus stations in exchange for 15 years of advertising rights at those stations. It also hired LG to create a new public-private corporation, the Korea Smart Card Company (KSCC), 34.4 percent owned by the city, to develop, install, and run the new payment mechanism on the buses in return for getting a 1.5 percent fee for each transaction.

Congestion Charging in Stockholm

The Path from Opposition to Advocacy

In August 2007, Stockholm introduced a congestion charge for cars crossing the city's inner boundary, aimed at reducing traffic flows into central city areas. The decision followed a seven-month trial taking place from January through July 2006 and a public referendum that followed just seven weeks later, coincident with both national and city elections. Although a polling organization had found only 43 percent support among the city's voters just prior to the pilot, seeing congestion charging work in real time during the trial period changed public views, producing a 53 percent majority vote in favor of the charge. At the time, no other city had implemented a congestion tax based on the results of a referendum. From the moment of the trial and onward, public acceptance of congestion charging has continued to grow. Today, congestion charging is not only a centerpiece of Stockholm traffic management; it is also a major source of revenue for transit and road investments throughout the greater Stockholm region—possible because the charge is a national tax and not a local charge. Stockholm's success in implementing congestion charging is noteworthy, because such measures tend to be rejected by citizens and politicians as heavy-handed despite being almost universally proposed by transport planners. Moreover, in the period immediately preceding the referendum, most of the political parties in Stockholm and at the national level, with the exception of the Greens (and local Stockholm Party), had rejected or avoided congestion charging as a serious policy priority. Even the Social Democratic mayor who introduced and managed the pilot project, which laid the groundwork for the policy's successful enactment, had originally opposed congestion charging during her electoral campaign.

This is a story of ongoing discussion, conflict, and compromise unfolding over several decades involving different political parties and in a key watershed moment, the professional career of a controversial mayor, whose astute policy management and leveraging of support from several levels of government laid the political and institutional groundwork for others to permanently connect congestion charge revenues to local and regional investments in transport infrastructure and housing development.

Strategic Actions.

——— Turning a potential political defeat into an opportunity to challenge conventional expectations.

Pressured by the local Green and Stockholm Parties and her own Social Democratic party colleagues at the national level to move forward on congestion charging against her own campaign promises, Mayor Annika Billström "saved face" by introducing a trial rather than a full-blown policy, skillfully managing the trial's implementation so as to bring key private sector actors on board, and strategically timing a citizen referendum so it would follow only after Stockholmers actually experienced the full-scale experiment.

——— Structuring public engagement to solidify administrative legitimacy and widen support for a controversial policy.

The referendum, by keeping open the possibility that a permanent congestion charging policy might ultimately be rejected by a majority of voters, helped solidify public support, mainly by introducing elements of democratic accountability.

——— Re-conceptualizing the issues at stake in order to minimize contention and partisan criticism.

Mayor Billström framed the congestion charging policy not as a done-deal mandated by others in the Social Democrat-Green coalition without concern for Stockholm, but as an experiment on which local citizens would vote and have the final say on their city's transport future.

Forced to uphold the positive referendum result following their victory in the general elections, the Centre-Right Alliance (led by the Moderates) justified backtracking on their previous opposition to congestion charging by reframing the congestion charging as a financing mechanism for regional transport investments, including roadway investments (to the benefit of their conservative and auto-oriented constituency). Such reframing also facilitated the inter-party and regional consensus necessary to gain parliamentary approval.

——— Recruiting and empowering a technical team to package transport knowledge in a politically-savvy manner.

In advance of the trial, transportation planners and administrators made significant expansions in bus service and new subway cars to indicate to voters that they were "getting something" from the charge. During the trial, the city ran a public outreach and education campaign that communicated in clear and accessible terms the trial's purpose, workings, and benefits.

Tactical Actions.

——— Introducing a trial at full scale (with as few exemptions as politically feasible) so as to demonstrate significant impact and in adequate duration so that constituents not only fully experience and understand how the policy works but also grow accustomed to the positive change.

——— Ensuring the technical proficiency of the operating system by engaging politicians, planning professionals, and private sector partners from early on and proactively troubleshooting together as needed.

——— Overcoming bureaucratic intransigence and inertia by convening working groups across departments and with direct reporting channels.

——— Cementing region-wide consensus for policy package by accommodating differing local priorities.

The successive Conservative-led local government gained regional support for congestion charging by agreeing to allocate much of its net revenue toward construction of new suburban expressways.

——— Finding allies across different levels of government so as to generate resources for facilitating both programmatic progress and longer-term institutionalization.

The success of congestion charging required both national-level decision making (parliamentary approval) and negotiations (the Billström administration utilized available funding sources through party channels and higher levels of government to minimize local expense and burden in undertaking the trial) as well as city-suburban negotiations (re: regional transport investment package) and policy making and implementation within the city itself.

Sustainable Transport in Vienna

From Transit Expansion to Traffic Management

In 2012, the City of Vienna capped off several decades of heavy investment in the expansion and modernization of its already-extensive public transport system with a dramatic reduction of annual transit ticket prices. Since 1993, the City has also adopted, district-by-district, a system of resident preferences in the allocation of on-street parking, built around sharply increased prices and tighter time limits for non-residents. In addition to implementing parking management, Vienna traffic-calmed three-quarters of its residential streets, reducing speed limits to 30 km/hr or less and in some cases barring through-traffic entirely. To complement these gains, the City further developed an extensive network of bikeways, along with rules enabling bicyclists to be among the major beneficiaries of traffic-calming. Concomitant with this set of reinforcing, integrated measures, Vienna experienced a remarkable shift in mode share from 1993 and 2013. The car share of trips fell by a third (from 40 to 27 percent) while public transport's share increased by 10 percentage points (from 29 to 39 percent) and bike share doubled (from 3 to 6 percent). Although sustainable urban transport and land use planning efforts are not uncommon in the countries surrounding Vienna and German-speaking Europe more broadly, Vienna has achieved unparalleled results in reducing private car use, and done so through incremental infrastructure investments and policy measures rather than through technology-driven change.

This is a story of tightening transport-land use linkages through continued commitment to mass rapid transit expansion in combination with parking management mandates, two distinct measures involving a range of governing authorities and planning institutions. Despite a highly fragmented political structure comprising 16 districts governed by Social Democrats, Greens, and Conservatives alike, critical transport measures like parking management have succeeded because of ongoing consultation, policy revision, and negotiations between district governments, residents, and businesses. These processes and the transport policy measures they have produced served to reinforce each other over time in ways that helped achieve the aims of urban compactness while also producing unparalleled progress in shifting mode shares away from automobiles.

Strategic Actions.

Coordinating public transportation investment with national authorities over the long term by linking the servicing of the city to national, political, and economic aims.

Since the 1990s, Vienna, as a city and federal state, has used federal funding to support metro construction and expansion. As the capital of Austrian, Vienna provides a range of governmental, educational, and cultural services to the entire country, and receives twice as much general revenue sharing per capita from the federal government as other cities.

Timing transport infrastructure investments with major demographic shifts.

The City of Vienna invested in public transit and cycling improvements as the influx of immigrant with lower rates of car ownership supported higher levels of ridership and cycling.

Incrementally adopting sustainable transport measures, with room for adaptation or reversal, so as to avoid serious failures and minimize political risk.

In expanding and modernizing the U-Bahn system from the 1990s, the Social Democratic Party pursued consensual decision-making processes with different stakeholder groups, at the cost of considerable project delays but with the upside of maintaining political competitiveness and influence.

The City of Vienna used Transport Plans (1980, 1993, 2003, 2014) to promote policy continuity in improving public transport, limiting roadway expansions, restricting on-street parking, and promoting walkability and cycling.

Complementing and integrating rather than inventing or replacing transport policies and programs.

Vienna has continued to modernize its historic tramway system, which serves many outlying areas of the city and acts as a feeder to the expanding U-Bahn network. The metro, tramway, bus, and regional rail systems form a multimodal transit network with integrated schedules and fares along with real-time information systems.

Where all curbside spaces were previously available to non-residents, revising parking management strategies to include resident-only parking zones resulted in their adoption by five additional districts.

Promoting multimodal transfers between private cars and public transport rather than treating them as mutually exclusive substitutes.

The City of Vienna built park and ride facilities in outlying rail transit stations to promote car-to-public transport transfers.

Using informational campaigns to promote understanding and support of sustainable transport measures among local stakeholders.

The City of Vienna mounted an informational campaign to encourage adoption of parking management by additional districts. In town-hall style meetings held in local neighborhood restaurants, exhibits portrayed the advantages of parking management and how it would operate, with planning staff available to answer questions and conduct one-on-one consultations with individual residents.

Tactical Actions.

Enlarging transit financing revenues by combining different sources.

In combination with federal funding sources, the City of Vienna covers its local share of public transport operating sources by drawing on user fare revenue, a local transport tax on large employers, and revenue from on-street parking and city-owned parking garages.

Incentivizing transit ridership and increasing total operating revenues through fare reductions.

Where 94 percent of transit riders in Vienna use annual tickets, lowering the price resulted in a jump in public transport use, ultimately increasing total fare revenues.

Initiating a pilot program in a high intensity area for quick and visible results to facilitate public approval and support.

Parking management was first implemented in the city's 1st district, which had the most severe parking and roadway congestion problems. Despite initial controversy, quick results in terms of diminishing traffic while easing searches for parking spaces expedited public acceptance.

Offering carrots to key stakeholders and opponents (e.g. district residents and businesses) to gain political support without compromising policy feasibility.

When entire city districts are short-term parking zones, residents have access to exemption passes for a fee that varies by location and local needs. Businesses have received special parking permits, following their opposition, on the basis that their employees and customers as well as operators of delivery, service, and company vehicles would have greater difficulty parking. Further, residential exemptions did not extend to commercial streets, thus freeing up more spaces for businesses and their customers.

Differentiating transport measures across districts in ways that attend to the changing density and overall quality of the built environment.

Vienna's districts vary in their respective parking time limits and in the specific hours of enforcement. A longer parking duration is permitted in the outer districts as compared to the inner districts. On-street parking regulations are in effect for shorter time periods in the outer districts than in the center. The parking management commission urged the City to build off-street self-financing parking garages to supplement on-street parking in many of the outer districts (given their lower densities and need for more parking spaces).

Using spillover effects of sustainable transport innovations to spur citizen engagement with further policy and program expansion.

When the parking management program in District 1 led to an overflow of motorists to neighboring districts, the City formed a second commission to consider expanding parking management to Districts 2-9.

Fine-tuning and adapting policies based on feedback from extensive community outreach efforts so as to broaden uptake by additional districts.

Paris

From City Streets to Urban and Regional Transport Governance

Since the 1990s, the City of Paris has undertaken major expansions in transport infrastructure and services as well as modifications in street space to promote strong alternatives to private vehicle use. The City has also worked more concertedly with its inner suburbs to coordinate urban transit initiatives across municipal boundaries and throughout the Ile-de-France region. From the expansion of the urban tramway and metro to the introduction of the night bus, rapid transit lines, and electric car and bike share systems, recent sustainable urban transport measures cross and connect distinct political jurisdictions in ways that depart from the past. Historically, the capital-city-region has been characterized by highly uneven transit investment and spatial development. The city center benefitted from a dense public transport network, while the rail and bus systems serving the inner and outer suburbs had major inconsistencies and service gaps that disproportionately burdened working and lower middle class residents outside of Paris. Current transport policies and programs point to a new direction, as they have become increasingly regional in geographic scope. These developments have resulted from alliances among a wide range of political actors and institutions at all three levels of government—local, regional, and national—that in earlier years were more likely to compete than cooperate. In prior periods, ongoing conflict across levels of government and between political parties, state-owned companies, and other key decision makers in the metropolitan region stymied efforts to produce agreement on transport priorities for the Paris region. More recently, a Socialist-Green-Communist coalition has played an integral role in facilitating a move toward shared urban and regional governance—albeit negotiated case-by-case amidst continuing competition among the parties—while also driving policy collaborations with state-owned companies and private sector partners. One result is that car-induced traffic stabilized from the early 2000s, reflected in a steady decline of daily car use both in the center city and inner suburbs (IAU, 2011). The use of public transport also sharply increased across the region, even as the average number of daily bicycle trips doubled between 2001 and 2010.

This is a story of political conflict and competition as well as negotiation and partnership in which the introduction of a series of flagship transport initiatives in combination with incremental changes in existing public transit systems altered mobility patterns while also encouraging new forms of stakeholder engagement across municipal boundaries. These policy advances and the political relationships that enabled them have enhanced the institutional capacities of Paris and Ile-de-France public authorities to territorially expand sustainable urban transport, producing a new spatial vision for the metropolitan area and re-scaling future mobility challenges through a linking of transport priorities at both the urban and regional scale.

Strategic Actions.

Framing urban transport policies and programs in non-transport terms to gain policy resources and generate widespread public appeal across party lines.

Under the Socialist Mayor Bertrand Delanoë, the Left-Green coalition justified efforts to reduce road spaces available to cars and construct right-of-way bus and cycle lanes. These measures were touted as reducing noise pollution and "giving Paris back to its inhabitants," rather than being tied to the contentious issue of car use. By framing the urban tramway project as an urban regeneration issue, party leaders also gained support from city planners in the Paris Urban Planning Agency (APUR), thus enabling access to funds and new policy and planning allies across levels of government.

Restructuring the city bureaucracy so as to promote local autonomy and accumulation of policy resources.

The Delanoë administration reshuffled funding priorities in favor of transport and urban renewal, for instance, expanding resources under the supervision of the Traffic Department, reorganizing tendering procedures in transport to encourage competition with state-owned companies like RATP and SNCF, and creating a new Mobility Agency (2011) tasked with developing research and innovation activities. In so doing, the City lessened its reliance on the central government while also launching new transport initiatives through public-private partnerships.

Renegotiating terms of engagement across levels of government through shared policy experimentation and innovation.

By the early 2000s, the state-owned transport company RATP acknowledged the growing role of local authorities in the funding and organization of transport. In addition to opening local agencies across the Ile-de-France region, RATP simultaneously implemented a new incentive structure within the civil service bureaucracy that drew a new generation of highly skilled state elites to urban transportation projects. In response, the governing Left-Green coalition in Paris solicited cooperation from Parisian RATP agency officials on small-scale public transport measures such as night bus services and a bus rapid transit line, setting the foundations for ongoing policy coproduction between city technicians and state bureaucrats.

Steering decentralization reforms in ways that promote inter-municipal transport policy and planning collaborations while also strengthening regional autonomy.

As decentralization reforms transferred authority over regional spatial and transport planning to the Regional Council, the Left-Green majority contravened existing patterns of unilateralism and conflict among local authorities by facilitating inter-municipal collaboration around transport planning and policy implementation at local and regional scales (e.g. Mobilien, urban tramway lines, metro line extensions, Vélib extension to 30 municipalities outside Paris, Autolib launch across 46 regional municipalities). Key appointees such as the Communist Deputy Mayor of Territorial Cooperation fostered cooperation between the City of Paris and "red belt" of working class suburban municipalities. These new planning measures and contractual agreements promoted sustainable transport and quality of life for regional inhabitants against state imposition.

Tactical Actions.

Leveraging existing events and programs to increase public awareness and mobilize political coalitions capable of challenging existing transportation policies while also highlighting new action agendas.

When air pollution peaked in major French cities during the early to mid- 1990s, networks of public health professionals, urban planners, and proponents of non-motorized transportation drew research and discursive linkages across their respective policy domains to spark public debates about air pollution. In response, allied citizen groups and political leaders identified reductions in auto emissions as a key policy challenge for both political parties and governing officials.

In 2002, the Delanoë administration extended a Tiberi-era weekly traffic ban on the Pompidou expressway along the Seine River through the entire summer and complemented it with small-scale, interim programs such as artificial beaches and seasonal leisure activities under the name "Paris Plage."

Using major transit service interruptions and gaps as opportunities for promoting alternative urban mobility solutions.

During the 1995 General Strike, when work stoppages among public sector workers disrupted transit services, users spontaneously turned to

cycling and car sharing en masse, demonstrating to the public and policymakers alike that transport alternatives existed and should be encouraged across the region.

Accelerating diffusion of sustainable mobility and transport policies by accessing alternative funding resources through the national government, international partnerships, and public-private partnerships.

From 2008, Paris and its inner suburbs utilized national funding available for right-of-way bus and tramway projects in distressed areas within major metropolises along with alternative transportation systems, car and bike renting systems, congestion charges, and electric cars.

The City of Paris additionally participated in bids for European funding, sought membership in international networks of cities, and cultivated research and development partnerships with universities and state-owned enterprises such as RATP and EDF (Électricité de France). Resulting experiments provided the city with new ideas for improving urban transport.

Through an advertising concession granted to JC Decaux in exchange for start-up and operation, Paris launched the Vélib system (2007) in which users pay a small annual subscription to take a bicycle for up to 45 minutes free of charge. In 2013, the city introduced Autolib, an electric car sharing system, in partnership with the Bolloré. The company invested €200 million in start-up and will additionally pay €750 annually for each parking space, while receiving all the revenue from the program.

Concluding Remarks

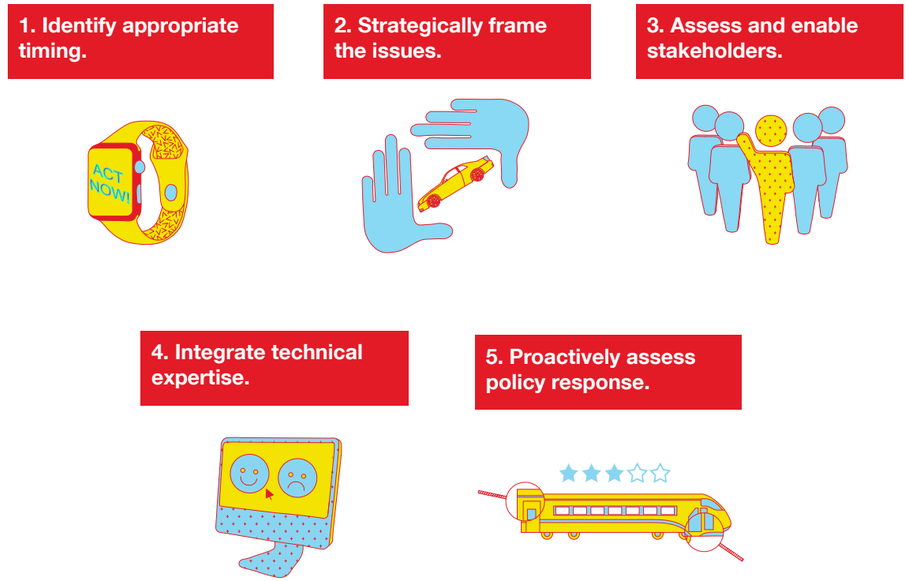
Cities around the world face a host of significant environmental, economic, social, and spatial challenges that must be addressed if sustainability and manageable urban futures are to be assured. Transportation policies can – and will need to – play an important role in how urban areas respond to these pressing challenges. The work conducted by the project for Transforming Urban Transport (TUT-POL) takes a significant step towards illuminating the governance and leadership conditions that enable or constrain the successful implementation of transportation policies. Yet even as cities achieve policy successes in urban transport, the scope and scale of transformation can vary. Policy innovations may carry identifiable impacts in transportation terms, but do they all contribute in the same ways to the transformation of transport or to the advancement of urban sustainability aims? Public and private advocates of sustainable transport need not merely to think about how to get policies implemented, but also to effectively distinguish between short-term policy success and long-term transformative change.

> "If we accept that the process is as important as the outcome, knowing exactly which process to follow to keep the idea of transformative transport change alive is absolutely critical. One needs to know which framing strategies, organizational or political tactics, and stakeholder engagements will truly enhance governance capacities in the long run. Only then can single transport policy successes be turned into permanent pathways towards a more sustainable urban future."
>
> **- Diane E. Davis**

A telling example is the Mexico City case, which focused on the political strategies framing the implementation of bus rapid transit (BRT). What appeared to be a policy success didn't quite translate into transformative success changes in the city's transportation system, at least not yet. Mexico City is still cited as having some of the worst traffic in the world. Closely examining the process of decision-making in that city reveals the prevalence of behind-the-scenes, almost private negotiations between governing officials and the owners of the transport services. Such processes kept larger issues of sustainability out of the conversation. TUT-POL found similar results in San Francisco, where private sector firms interested in technological change and profit making were able to push through favorable regulatory legislation at the state level and thus bypass many critical forces at the city level that could have helped direct these innovations toward urban sustainability aims.

Alternatively, in Stockholm, the adoption of congestion pricing followed three decades of contentious debate by national, regional, and local stakeholders including multiple parties at all levels; a congestion pricing trial; a ballot referendum by Stockholm residents; inter-party and regional consensus on the package of transportation investments to be funded by congestion charging revenues; and finally parliamentary approval. In this complex inter-scalar and eminently open process in which multiple stakeholders negotiated the terms of change, Stockholm not only introduced congestion charging but further generated a new revenue stream capable of funding future public sector transport investments at the regional scale, which were also linked with transit-oriented investments in housing and urban development.

The key takeaway here is that transformative change is more likely when the implementation of a particular policy simultaneously enhances governmental political and fiscal capacity to plan and advance longer-term urban sustainability aims, transportation-related or otherwise, by involving many stakeholders over a variety of territorial scales during a sustained period of time. This is a process issue as much as a matter of policy content. A long-term commitment to multi-stakeholder engagement and the establishment and strengthening of reciprocal relationships between governing authorities and sustainable transport policy advocates will be essential to making transformational urban change beyond the initially successful introduction of an innovative transport policy, as important as that can be.



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