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# Transport Governance for Sustainable Cities: practices, processes and cultures

### **DRAFT – NOT FOR QUOTATION**

Dr Geoff Vigar Director, Global Urban Research Unit School of Architecture Planning & Landscape University of Newcastle Newcastle upon Tyne, UK T: 0044 (0) 191 222 8338

E: G.I.Vigar@ncl.ac.uk
W: www.ncl.ac.uk/GURU

#### **Abstract**

Transport is increasingly under the spotlight in efforts to make cities more sustainable. Local authorities and government agencies are critical players in such processes, even where transport systems are extensively privatized. But how should they go about developing policies for a more sustainable future? This paper explores why transport policy fails. Such failure results from the way policy is devised, which is in part explained by the practices, processes and governance cultures that have accreted in the transport planning discipline. To escape this situation requires attention to a broader range of knowledge types: place knowledge; knowledge about urban dynamics; and, knowledge about what (might) work. Such an analysis suggests that there are both: common goals, policies and practices; and, typical ways forward in shaping governance systems, for more sustainable transport planning. This shaping should particularly address the soft infrastructure associated with the skills, cultures and practices that exist in transport planning as a profession.

# 1. Sustainable cities and transportation

Transportation has become central to debates about sustainability and sustainable cities. In land-use planning, debates about sustainability are frequently reduced to transport issues and debates about compact cities and possible future urban forms are dominated by the feasibility of transport solutions.

It is common to assert that sustainability has economic, ecological and socio-cultural dimensions. Transportation is critically implicated in all of these. But, in many contexts certain dimensions tend to become prioritised, notably the economic. This prioritisation can result from a failure to grasp the complexities of some of the social, cultural and ecological dimensions of sustainability, or a failure to prioritise them in subsequent political decision-taking. It can also be put down to a failure of techniques. The techniques and practices embedded within the transport planning discipline tend to be derived from engineering and economics. There is good reason for this and such methods continue to be useful, but my argument, developed later, is that they are too narrow to capture the range of knowledge needed for successful policy-making these days.

Such a broadening would help to highlight some of the sustainability elements that are poorly accounted for in much transport planning practice. It would also require transport planners to move away from a false position of neutrality toward being more open about their values and who and what might benefit and not benefit from policy implementation. This requires attention to, and advocacy of, the voiceless in policy debates – the old and the young; species and habitats - if sustainable mobility is to be a reality. Castells (1997: 122-6) conceptualises environmental problems such as those arising from transport externalities, as ones of struggles over space and time (see also Urry 200x). In Castells terms, this arises most significantly in transport terms between spaces of flows and spaces of places i.e. typically between the network society's dominant capitalist processes and people's lived routines. This leads to conflicts over specific projects as well as transport flows generally as they expose debates between "abstract priorities of technical or economic interests over actual experiences of actual uses by actual people" (p.124). Arguably existing transport planning practice is good at flows and poor at capturing and valuing place-based experiences. We need then to capture some of this latter information and find a way of integrating with the dominant forms of knowledge typically extant in transport planning processes. I turn to this project later in the paper.

# 2. From 'predict and provide' to 'sustainable mobility'?

The second half of the twentieth century saw an increasing sophistication in the methods and techniques associated with transport planning. Increased computer modelling capability, better information technology and improved educational standards associated with transport planning all drove up the quality of the inputs in to planning processes. But, such models were increasingly called in to question in terms of how well they were able to help decision-making processes. Many were associated with practices of 'predict and provide' whereby demands were predicted using ever more sophisticated models which were then provided for through increased supply (Owens 1995).

Where mature transport networks existed, 'predict and provide' as an idea was increasingly questioned. Significantly it took no account of the policy aims of other policy sectors, this also at a time when policy integration was increasingly becoming recognised as an important governmental challenge. As such, transport policy based on it, became increasingly disconnected from land use planning and environmental policy. Thus planners could often be found trying to manage traffic in neighbourhoods which was ever more facilitated by expansion of the road networks around them<sup>1</sup>. Increasing evidence, and political salience, of the need to address carbon reduction in the transport sector, was at least responsible for aligning the rhetoric of transport policy more closely with environmental goals, even if reality was somewhat different (Shaw and Docherty 2008; Low et al 2005; Vigar 2002).

But the 'predict and provide' approach was also judged increasingly deficient *in its own terms* for a number of reasons. First, it took little account of policy decisions themselves, thus policy became somewhat self-fulfilling as increased supply promoted the attractiveness of that network. Commentators noted how countries with such policies, such as the UK, experienced greater traffic growth than countries such as the Netherlands which took a different approach in similar contextual circumstances. Second, more was becoming known about the way increases in supply released latent demand (e.g. SACTRA 199X). The Downs Thomson Paradox pointed to the ways that an urban road improvement led to transfers in space, time and mode on to the new improved piece of network. Thus Phil Goodwin concluded that years of refining demand models led to the, "*inheritance of an analytical toolkit that is bright, impressive, of unchallengeable intellectual achievement, and wrong*" (1997: 9)

Various conceptualizations have been proposed to capture what has emerged as an alternative to predict and provide. Indeed forty years ago Plowden (1972) argued that a 'non-traditional' approach was well established in British transport planning by the early 1970s though it lacked political power. In the UK an acceptance of the limits to supply-side solutions among an academic elite was captured in the idea of the 'new realism' (Goodwin et al 1991). Similar ideas based on demand management were variously presented as 'predict and prevent' (Owens 1995); and have latterly been incorporated in to what Banister (2008) terms the *sustainable mobility paradigm*. Such an approach focuses on reducing the demand for motorized travel, modal shift toward less polluting modes, a reduction in trip lengths and greater efficiency in transport systems (Banister 2008: 75). An approach for which there seems broad agreement in the global transport community and beyond.

Banister suggests that to deliver such an agenda requires attention to four key areas. First, a long-term aim of transport planning has been to make the best use of technology. The extensive sunk capital tied up in infrastructure networks makes this especially critical and new information technologies offer new possibilities, although this should be tempered by the knowledge that there is a symbiotic relationship between telecom and transport use. Second, pricing needs to better reflect the true costs of journeys. In many cases this represents a failure to internalise the wide range of costs associated with burning fossil fuels, especially in relation to costs to health

<sup>&</sup>lt;sup>1</sup> This argument can also be reversed. In Tyneside in the early 2000s transport planners grew increasingly frustrated with land use planners allocating development on 'edge city' sites which increased traffic on a congested highway network and made public transport provision difficult.

services and for climate change. But in some cases, such as bus travel, it may be that when these factors are considered, the user may be paying more than the true cost and fares might fall (Docherty and Shaw, f). Third, especially given the need to reduce journey distances, close attention needs to be paid to land use development and regulation. Integrating land use and transport planning more closely is a long called for aim and progress generally appears poor. Planning that considers the needs of a place before the needs of flows has been on the transport agenda for over 60 years. But beyond some exceptional cases such as Copenhagen there have been few attempts to holistically consider issues such as liveability and delight when pursuing transport strategy. Fourth, there is growing interest in the way transport strategy is developed and communicated. General public transport marketing campaigns, awareness-raising of the environmental impacts of travel choices and techniques such as personalised marketing all have roles to play here.

# 3. Understanding policy change and stasis: the importance of routines and practices

Radical policy change in any discipline or in any place rarely occurs. Policy communities that are well-established tend toward conservative behavior and path dependency is the norm (Marsh and Rhodes 1992). A number of general explanations can be offered for this but policy areas, especially when professionalized, tend to become dominated by established routines and practice. In transport's case these often centre on modeling practices and in techniques derived from engineering and economics. A number of well-rehearsed side effects result from such a domination. In general terms, transport policy can become neglectful of the wider place considerations as problems on networks, typically of congestion, come to dominate discussions and responses. Transport models can be seen as a form of technology and these have agency after a while as they take over the practices of the team's set up to run them, and subsequently the policies emanating from them. They also have embedded in them a variety of assumptions that bias their outputs. For example, in the UK, benefit cost analysis practices value the time of motorists higher than those of other transport users. This has the effect of making road schemes look better value than others. In addition, appraisal for public transport schemes factors in the loss of fuel tax revenue from car users transferring to public transport. While this is perhaps theoretically correct it then makes public transport schemes look poor value for money. Alongside these criticisms broader issues have been raised with modelling practices more generally (see Bertolini 2007...)

More subtle processes are also at work. Jensen and Richardson (2009) observe that transport planners have ideas about what schemes are attractive and what sorts of users they envisage. There is nothing inherently wrong in this but if such ideas come to dominate they can crowd out other possibilities. In their case of Bangkok, the Skytrain reinforced the mobility poverty of certain user groups' while facilitating the mobility richness of the middle class.

In many cases, however, policy often appears to change but analysis of what actually happens, of implementation, suggests that change is rarely very large: new rhetoric simply becomes incorporated into old policy but underlying practices do not change. Transport policy has been good at adopting a language of sustainable development for

example but if we look at the detail, little has changed in many instances. Explanation lies in the structures of organisations, such as the number of officials looking at particular modes for example, which are often not addressed. There are other reasons. First, local political systems demand visible action and often have 'pet schemes' that they sell to electorates. These can then dominate 'technical' processes of appraisal to such an extent that the reality of policy is far from its starting rhetoric. Second, alternative proposals are often counter-intuitive. That is, solving road congestion by promoting cycling, or improving downtown sales figures through pedestrianisation, don't appear to many to offer solutions and so a degree of 'selling' and convincing work is required. Conversely the same group might argue that what is needed is a bigger road, and so the intuitive solution may require evidence mobilised to say why it is unlikely to succeed.

Transport policy thus often continues on its path with little major change despite the growing evidence of the need to shift toward sustainable mobility. Current policy appears biased toward certain modes and user groups, often reinforcing hypermobilty in the already mobility rich. This results from a lack of change in the underlying practices of transport planning. The rest of this paper is devoted to exploring how practices might change.

# 4. From government to governance

Many observers note change in the way that governing is enacted in recent years. Partly due to a neo-liberal challenge to the role of the state, partly in response to evidence about how governing could be done better, and also in recognition of the fact that governing has always occurred at institutional sites other than the state, there has been a relative decline observed in the role of formal government in the management of social and economic relationships.

For some this shift from government to governance is ideological, for others it is more an empirically observable phenomenon suggesting the involvement of non-governmental actors in a range of state functions at a variety of spatial scales. In many societies such a shift is a response for more voice in policy processes from citizens, activists and businesses; coupled with a decline in the trust in experts. The result is a change from *hierarchical* forms of government structures to more flexible forms of partnership and *networking*. The private sector operators of transport services may well be involved in policy development too, as are businesses and citizens that demand particular transport services. There is thus a shift from the provision of services by formal government structures to sharing of responsibilities and service provision between the state and civil society. Hand-in-hand with this trend has seen a devolution and decentralisation of governmental responsibilities to regional and local governments as lower tiers are seen to be closer to the governance issue and the people articulating it, and thus better able to respond.

The implications for transport planning of a shift to governance are many. Privatisation and marketisation of transport services implies a changed role for the state and a shift toward a more networked form of governing. But on a different note, the sustainable mobility paradigm is built on the need for behavioural change. Such change is unlikely to be achieved in a top-down, autocratic way in modern

democracies. So, active engagement in policy development is necessary if policies are not to be rejected. Greater involvement will also improve the flow of information in to a strategy. And one way of overcoming implementation deficits is by giving people ownership of strategies through participation. Attention to the refinement of demand models is unlikely to play much of a part in satisfying these requirements. The principal implications for transport professionals is to figure out how to engage such communities in the practice of policy development, how to create the fora for discussion and the channels of communication throughout the strategy development process. How might this be achieved is discussed in the next section.

# 5. Knowledge for policy-making

Healey (2006) suggests that three types of knowledge are needed to devise a strategy: knowledge **about place** (who lives and works there, what is it like to do so, what are their mobility needs and desires); knowledge **about conditions** and how they might change (models, urban-regional dynamics, etc); and, knowledge **about what works** in other places, best practices etc. Each of these are discussed below.

#### Place based knowledge

If we are devising a transport strategy for a city or neighbourhood then we need to know how people travel, how they might travel if they were able, what is missing from their daily lives that might have an accessibility component etc; we also might need to know what transport services need improving if our vision for business improvement is to become a reality. All of this requires talking with particular groups. We should also be aware that getting to all the sections of the community we want to address will take resources and a degree of targeting to avoid policy being shaped by the 'usual suspects'. In such considerations we should think about who or what do we want to benefit most from our policies and what interventions work best for them.

We might also need to know what the particular environmental and cultural challenges for this place are- what habitats, buildings and open spaces need preserving, what is the air quality like etc. What broad cultural things do we need to know- are cars a status symbol? Again some of this is technical work but there is also a peopled input to this.

Much of this information may not be apparent to outsiders and often it is not explicitly held by informants until questions are asked and people are engaged in dialogue (see Raymond et al 2010). We need to talk to 'citizen experts' who have 'lay' and 'local' or 'situated' knowledge but they may not carry this knowledge in a structured, easily articulated way and so we need to take care in eliciting it. Ideally this information gathering needs to start early on in our strategy-making process to shape our thinking about what might need to happen and how our strategy development process needs to evolve. We should note that such participatory or deliberative processes are difficult to do, if they are not then you are probably not doing it properly!

In summary therefore, participation is to be encouraged for a number of reasons including (Vigar 2006):

• democratic purposes;

- sharing and providing knowledge of others' experience and local conditions, 'lay', 'local' or 'situated knowledge';
- debating these various 'knowledges', developing awareness of associated policy complexity and facilitating learning associated with the problem at hand
- generating shared ownership of strategies and programmes, thus potentially reducing implementation deficits.

#### Knowledge of urban dynamics

We do of course need to know about more strategic transport concerns in our place. Much of this will be 'expert' knowledge carried in house among our transport team. Knowledge of trends in car ownership, oil prices, technological change all have to be considered in thinking about the future. Transport planners will have a good existing knowledge of networks, problems and what has been tried before. Established models and techniques can also be useful in this. But as the above discussion illustrates a strategy based only on these factors is limited and likely to fail, not least because of future uncertainty which renders many models obsolete (for a more theoretical account of why see Bertolini 2007)

Greater information is needed about urban-regional dynamics to complement the transport-oriented work. This information may be held by urban planners; by university geographers and economists; by futurists and think tanks. Such useful information might concern changes to employment structures and locational demands, demographic changes and its demands etc. For example, we may need to know what the future of our industrial base is likely to be – is our local industry under pressure from exports, can transport play a role in helping? Is our city likely to be a location for growing industries in the future and what transport provision would encourage such industry? We might need to be aware of changes in the age profiles of our city and what the implications of an ageing society might be for transport demands for example.

#### Knowledge about what works

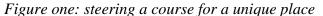
We also need at some point to think about what policies and decisions we are going to implement. These can also be discussed with our stakeholder groups, in the context of our own research in to what might work in our place.

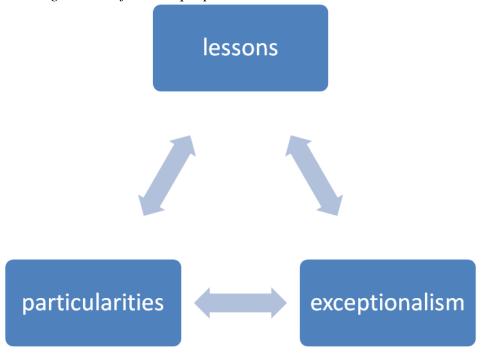
A key element in this is learning from our past experience but also that of others. Best practice is everywhere these days, in part fuelled by better information technology. It is undoubtedly helpful but it can also be a dangerous tyranny as ideas circulate rapidly round the globe, often pedaled by consultants, with little awareness of the context in which the policy was originally successful or that where the policy is destined.

For example, Bogota's 'best practice' experience of bus rapid transport is not just a single technology. It is a 'bundle' of ideas, of specific techniques, of administrative and legal arrangements, of life and work cultures (Healey and Upton 2010). A policy might have succeeded somewhere because of what was tried before and be shown to succeed and fail and of the particularities of context- 'our place is so bad we need something radical' etc. In learning from best practice we need to know the 'infinite depth' of context and probe in to the 'bundle'. Problems occur when local adaptors are insufficiently aware of the context from which best practices originate and the

small, often hidden things and the combination of them, that mean a policy works there (but may not work here). The lesson is that places, and thus context, are different. We should learn from, rather than transfer; adapt but not seek to emulate, the experiences of others.

The opposite extreme to slavish emulation is the problem of 'terminal uniqueness' or exceptionalism. The idea of terminal uniqueness originates in psychiatry and denotes someone who remains in denial of the need to change because they feel that no one else has their set of problems and circumstances and so no one else can offer solutions. Governments, city mayors, planners can all fall prey to this when talking about their city. All places are indeed different with their infinite depths of context, of history and present day dynamics. But everyone has something to learn from somewhere else if only about what will not work as much as what will<sup>2</sup>. As Figure one demonstrates then we have to steer a course between exceptionalism and slavish adherence to best practice.





For example, the transport literature is heavily dominated by Anglo-American experience supplemented by mainland European case studies. We know comparatively little about theoretical thinking in many parts of the World, although we have a number of best practice examples from elsewhere, notably Latin American cases. A doctoral student of mine from Saudi Arabia was keen to address growing transport problems in Riyaidh. But where was he to turn? There was little point in looking to Freiburg in Germany and its attention to no car developments, high densities and dependency on bicycles, given Riyadh's existing conditions. The

<sup>&</sup>lt;sup>2</sup> See Stead et al 2010 for a good example of local adaptation of transport policy to local circumstance

literature is surprisingly silent on best practice in such contexts and more creative thought was required in interrogating best practices, even from the near Middle East.

#### Integrating knowledge forms

What then do we do with all this (different) knowledge? How do we make sense of it, which should prevail? Many authors suggest that there is no one way of doing this (see Raymond et al 2010). Synthesising such different knowledge is a task of judgement built up through experience and collaborative effort. As such attention to the principals of knowledge integration and to the *processes* by which we might perform integration seems to be the best way forward (Raymond et al 2010). Thus we should be clear about why we are rejecting some forms of knowledge and privileging others. Techniques like scenario building can help in that they build pictures by synthesising the data. But if the process is designed well from the start then many of the possible criticisms of the ways knowledges might be processed can be bypassed. The commissioning and transparent sharing of 'data' among lay and expert groups *throughout* the decision/ policy-making process is important for this to be achieved. This is in stark contrast to the practice in many places among transport planners of proposing two very similar competing projects on to an unsuspecting public!

# 6. Deliberative transport policy-making

The ideas described above are broadly in the tradition of what are often termed deliberative, collaborative, or participatory approaches. A growing literature in this field recognizes the problems inherent in such an approach- of its resource intensity; of the skills needed to manage it; of certain voices crowding out others and acting instrumentally, of the difficulties in doing so where participatory experience is limited etc. But as a set of broad principles, as a direction of travel, it has utility and this has been recognized in the transport field (Willson 2001; Vigar 2006). There are particularities associated with transport planning as a subject area however.

The good news is that transport is an area in which it is easy to start a debate! People have lay knowledge which it is often easy for them to articulate and unlike some areas of government they may have strong opinions to voice. This is of course somewhat double-edged! There are a number of particular difficulties too (see also Sager and Ravlum 2005). First, transport projects and policies are inherently multi-scalar in nature. The distribution of their impacts within and across scales makes deliberation of their costs and benefits complex and potentially riven with conflict. For example, people may want to benefit from new infrastructure but will not want to be too close to it that they suffer from negative externalities such as pollution. Local jurisdictions may also disagree over priorities in a region and the 'best' solution may not emerge from a debate among political coalitions. Such complexity thus makes consensus difficult but also, given the frequent crossing of political boundaries justifies intervention at multiple scales i.e. sometimes an honest broker at a higher scale can be helpful in moving a debate beyond self-interest and if necessary making a judgement.

Second, many 'myths' perpetuate the transport field (see Black 2001) and these are hard to unpack and require technical and communicative skills (see also Vigar et al 2000). They also require arenas in which such evidence can be put and questioned

which can constitute a difficult obstacle, but concerted effort on a number of fronts, including extensive use of the media can offer a way forward.

Third, and perhaps due to the complexities of debates in transport, there is a resort to personal anecdote over other forms of 'evidence'. Such anecdotal evidence is helpful up to a point but it must be positioned in wider contexts and the wider applicability of it situated. Relatedly, discussions tend to drift toward individual pieces of networks and the discussion of schemes. A tendency to jump to that intuitive solution is always present and again such evidence requires challenge in policy arenas, mobilising other knowledges. The planner cannot in such circumstances be simply a ringmaster of a debate (see Vigar 2006 for what goes wrong when this happens!), they must intervene to some degree with their expertise and become a 'skilled voice in the flow' (Throgmorton 2000).

Fourth, we return to the problems of terminal uniqueness and exceptionalism – 'that might work there but it will not work here'. This is closely linked to the myths and counter-intuitive nature of many solutions. For example, local businesses regularly complain that pedestrianisation will remove passing trade. When confronted with the evidence, that it almost always doesn't, the response is often one of 'well this place is different from all those others'. There appears to be something in human nature that denies the science if it doesn't fit our world view but it is a problem in a complex area such as transport where popular myths prevail.

Fifth, transport professionals tend not to be educated in process management and associated facilitatory skills.<sup>3</sup> But the best transport planners often do instinctively have these skills. Consultants often do a great deal of this work but they too are often learning through doing and it goes against the idea of policy development as 'civic learning' (Reich 2000?; and Vigar 2006 for more on the problems of using consultants in this way). The first step is a recognition of the need to do participatory work, and that it is complex and may require specialist training or support. Extrapolating from this, the skills of professions as a whole may be an issue for educators and professional bodies.

#### 7. Moving forward

So there are a number of difficulties in doing governance work deliberatively, and a number of issues specific to making transport policy in such a way. What then are the ways forward in trying to do governance work in a more deliberative and less technocratic way in the transport field.

First, the knowledge that citizens, activists and businesses carry about local conditions, business needs, and environmental capital is a vital input to making better policy. This knowledge needs to be considered, challenged and contested and carried in to a dialogue with other forms of knowledges to make better decisions and policy. Involving people in decision-taking and policy-making also encourages ownership of,

<sup>&</sup>lt;sup>3</sup> This may be a British peculiarity, it is certainly not inevitable. For example, in Western Australia significant numbers of transport planning staff at the Department for Planning and Infrastructure have been trained in how to conduct collaborative practices.

and a commitment to, making policies work, thus closing so called implementation deficits.

Second, planners need to be transparent in highlighting the knowledge that they consider important/ critical and where decisions are taken they need to be explained. In giving such information attention needs to be put on accentuating the positive impacts of a proposal. In doing all forms of the media should be considered to sell the strategy. Local press outlets are particularly receptive to discussions of urban transport. Many local governments have press offices that can be used to act as a conduit for ideas.

Third, Banister (2008) suggests the use of pilot projects and phased implementation to demonstrate the positive effects of a chosen strategy. The success of such an approach is highlighted in the acceptance of road charging schemes in Scandanavia as opposed to the UK (cf Rye et al 2006 with Winslott-Hiselius et al 2009). Counter-intuitive solutions in particular need demonstrating, the London congestion charging being a good example where an unpopular policy was implemented anyway and public opinion changed radically when its success became apparent. Experiential knowledge of the outcome of a decision, policy or strategy is known to be important in changing or cementing opinion (Hajer 1995).

Fourth, transport planners need to try and ensure a degree of consistency with transport policy at other scales and with policy in other sectors. For sustainable mobility to work it needs a consistent package to be implemented over a long time period. There are many potential allies out there, but they may need the strategic direction of a strategy explaining to them. Policy areas are stronger together, especially when under challenge from rival coalitions. A strong and consistent strategy is also important to avoid political cherry-picking of strategy elements as typically besets a transport strategy at implementation.

The fifth lesson is to be adaptable and be seen to be adaptable: compromise on the details can secure implementation. Again this is well demonstrated by comparing road charging schemes in Stockholm and Manchester (compare Winslott-Hiselius et al 2009 with Vigar et al, f).

#### 8. Conclusions

Transport policy often fails. Transport strategies often promise much and do not deliver. The long-term nature of transport planning does make the seeing through of all the elements of a strategy difficult. Political priorities change, economic crises occur and new issues emerge which can all derail elements of a strategy, rendering the whole less significant. But we can establish strategic priorities against which short-term changes can be made. Hillier (200x) cites the example of the transport strategy for Kosovo where there was enormous uncertainty about the future and so broad aims were agreed among stakeholders such as maintaining minimum average speeds on strategic highways. The detail of how to get there was left for future action plans. In general terms, there is broad international agreement on the need for a sustainable mobility paradigm to come to dominate, given that no alternative can be shown to work. Adapting such an approach locally then becomes the challenge.

Here, for reasons of good science and of good governance, but also in response to increasingly educated and vocal publics, we need to change our approach to policy and decision making to encompass different forms of knowledge. Weaving together knowledge of local conditions, including local political opportunists and constraints, broad urban-regional dynamics and awareness of what works is a great skill which requires judgement accumulated over time. Such situated judgement is what often marks out a professional (Amin and Roberts 2008; Campbell 2005; Sunley et al 2010). We can see this in action in our global best practice exemplars such as Bogota, Curitiba and Freiburg. It is not simply the picking up of a dominant technology, but an awareness of all the contextual factors in play that will ensure successful policy adaptation from such places.

It also requires a transport planner to be a 'skilled voice in the flow'; commissioning, accumulating and communicating a wide range of evidence; addressing silences in policy debates; and acting as an advocate for such silences against powerful, and often misguided, coalitions. This is not an easy position and requires more political and media savvy than is usually associated with a technocrat transport planner. But all of our best practice exemplars typically have animateurs, or people who have made powerful allies in the political infrastructure that can champion a well designed strategy. Under these conditions we can deliver sustainable mobility and sustainable cities.

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