The final publication is available in: Applied Mobilities, 2018, DOI: 10.1080/23800127.2018.1427822

Exploring how Politicians Reflect on Counteracting Measures: The Case of the Trondheim Package

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To cite this article: Kjersti Visnes Øksenholt & Aud Tennøy (2018): Exploring how politicians reflect on counteracting measures: the case of the Trondheim package, Applied Mobilities, DOI: 10.1080/23800127.2018.1427822

To link to this article: https://doi.org/10.1080/23800127.2018.1427822

Abstract

Transitioning towards a low emission society is a goal of numerous international and national political and administrative levels. This includes reducing impacts of road transport. While aiming for a transition towards more sustainable mobility, it is particularly striking that road capacity expansion is presently under planning or implementation in most main cities in Norway. Against this backdrop, we decided to study Trondheim's Environmental Transport Package because this has a strong environmental profile with main objectives of reducing CO_2 emissions and limiting car traffic, while at the same time increasing road capacity. Our exploration of how political decision-makers reflect on including road capacity expansion in a plan aimed at reducing traffic volume is only a first step towards finding out how an apparent disconnect between stated objectives and policy measures is reconciled. This might provide opportunities for better understanding and influencing politicians' framing and actions early on, before measures are included that counteract the transition towards more sustainable mobility. We believe our explorative study reveals how motivated political decision-makers reason when faced with conflicting goals and contradictions, and, may contribute to a better understanding of what hinders transition in similar processes in other cities in Norway and abroad.

Keywords: Political processes; decision-making; sustainable mobility; road capacity expansion; framing

1. Introduction

Mobility has been seen, historically, as the possibility to move, unhindered, from A to B (to C) by the easiest and fastest route possible, thus supporting the freedom of the individual and a 'better life' (Freudendal-Pedersen, Hannam, and Kesselring 2016). Within this traditional paradigm, transport planning is often of the type known as '*predict and provide*'. Traffic growth has been defined almost solely through growth in population, business and economy, and as something inevitable. The approach to avoiding congestion and traffic problems and to securing frictionless travel was by being able to predict traffic

growth and provide the road capacity necessary. Given this understanding, if new roads were built as ring roads, and/or in tunnels, it was thought that the local environment would improve, as traffic would be drained from local streets and city centres – local pollution, noise, traffic accidents, and so on, would all be reduced. This development, resulting in cities spreading without any increase in travel time (Banister 2008) and allowing growth in urban road traffic volumes (Tennøy 2010), might partly explain why the transport sector as a whole is responsible for about 25 percent of global CO_2 emissions. And even though increased vehicle and engine efficiency and low-carbon fuels are important contributors to a low emissions society, GHG emissions continue to grow (Sims et al. 2014). In a Norwegian context, it is striking that although plans at all political levels clearly state objectives of reduced CO_2 emissions and zero growth in urban road traffic volumes, road capacity expansions are under planning or implementation in most main cities.

With an increased focus on the effects of climate change and on the unsuccessful experiences of road-building as one way out of congestion, the concept of sustainable mobility has emerged, emphasising transition towards a low emission society. The early 1990s saw 'a reframing of the transport problem' (Owens and Cowell 2002), with a new approach to traffic problems and congestion in cities. This included steering land-use and transport system developments in directions that reduced transport demand, car dependency and traffic volumes. This paradigm problematized urban road capacity expansion, as this was understood as facilitating car-use and as having traffic-inducing effects (more on this later). This has since been termed '*predict and prevent*' (Owens 1995) or the 'sustainable mobility paradigm' (Banister 2008). One could argue that the emergence of the sustainable mobility paradigm was to question the ethics behind the frictionless society posted by the traditional paradigm and its differential mobility (Sheller and Urry 2016). Aiming at transition towards a low emission society, environmental impacts associated with physical transport had to be reduced. Such goals are stated by numerous International and National political and administrative levels (European Commission 2011, Ministry of Climate and Environment 2007, 2012, Ministry of Transport and Communications 2013, Banister 2011, Owens and Cowell 2002). Banister (2008, 74) argued that "*the intention is not to prohibit the use of the car [but rather] to design cities of such quality and on a suitable scale that people would not need to have a car*". Factors such as public policy, planning and urbanisation have thus emerged as increasingly important (Sheller and Urry 2016).

In previous studies, professionals have not always reframed their ways of thinking and acting towards understanding the new paradigm (Næss et al. 2013, Tennøy 2010). In some studies, it has been pointed out that part of the problem rather lies at the political level (Flyvbjerg 1998, Tennøy et al. 2016). Political decision-makers may define objectives concerning reduction in CO_2 emissions and growth in urban road traffic volumes, but might not know how certain transport system developments affect traffic volumes, or they might not be willing to develop transport systems in ways contributing to the achievement of these objectives. In this article, we explore how political decision-makers reflect when

they make decisions on developing transport systems in ways that, according to research-based knowledge, clearly reduce the likelihood they will achieve the objectives they have defined. We explore this through a case study in which we interview six politicians in the city of Trondheim about their reflections on including urban road capacity expansions in a policy-package designed to stop traffic growth and reduce CO_2 emissions from traffic.

2. The Trondheim case

2.1 An interesting inconsistency

In 2008, political decision-makers in Trondheim adopted a policy package with the ambitious objectives of "*reducing CO_2 emissions, limiting car traffic and improving conditions for walking, cycling and public transport*" (MoT 2008c, 1; authors' translation). Examples of the 10 concrete objectives were: reducing CO_2 emissions from transport by at least 20 percent by 2018 (compared to emissions in 2008); reducing private car travel from 58 percent of all trips in 2008 to 50 percent in 2018; and increasing the share of ecofriendly modes of transport (walking, bicycling and public transport) from 42 to 50 percent. Other objectives mainly concerned implementation of contributory measures: reducing traffic accidents and improving the local environment – objectives to a large degree reflected in the measures included in the package. An important aspect was reintroduction of a road toll scheme, which was the main source of finance for the package, together with additional funding from Government. Other measures were: to substantially improve public transport services and bicycle infrastructure; to steer land-use developments towards densification and transformation rather than sprawl; and to reduce parking access and increase parking fees.

A striking inconsistency was that half the funding in the package was set aside to expand road capacity on existing roads and to build new roads. This seemed unnecessary if traffic volumes were to be curbed and reduced, as it required major investment which could be used instead for improving mobility by other modes of transport. Furthermore, the traffic-inducing effects of expanding road capacity in congested urban transport systems have been well researched and documented (Downs 1962, Mogridge 1997, Noland and Lem 2002). It would mean that the chances of the main objectives defined in the policy package being achieved would be reduced. We considered this to be an interesting case for exploring how political decision-makers reflect on including measures that, according to well documented knowledge, reduce the chances for achieving objectives they have defined.

2.2 Some background on the 'Trondheim package'

Trondheim is the largest city in mid-Norway and the third largest in the country (165,000 inhabitants in 2008), with a rising population and steady growth in traffic (Jean-Hansen, Hanssen, and Aas 2009). Based on governmental signals in the proposition of the new National Transport Plan (Ministry of Transport and Communications 2009), Trondheim

would not be granted funding for transport infrastructure (MoT 2008a). Furthermore, with income from the road tolling system removed in late 2005, finances for developing transport systems in ways meeting future challenges were diminished.

In parallel, as *"International commitments […] filtered down to the city level"* (Tønnesen 2015a, 90), the Government was sending out strong signals to municipalities on the need to curb CO_2 emissions from road traffic through the Parliament's climate agreement (Ministry of Climate and Environment 2007). Furthermore, the Government increased its focus on policy packages, with the notion that a deliberate combination of policy measures might better enhance effectiveness than more isolated planning, and thus increase goal achievement potential (Tønnesen 2015a). With the addition of a new reward programme, the larger municipalities were even more strongly incentivised to organise efforts between policy actors at different sectors and levels to reduce private car-use and increase public transport use through policy packages (Tønnesen 2015b). Policy packages are normally cooperation between municipal planning authorities and transport authorities, national and regional transport authorities and other relevant agencies, all of which steer implementation of packages through a secretariat. The policy package structure is thus more a coordinator and developer of mutual agreements (Tønnesen 2015a) than a statutory package with strong judicial implications.

Inspired by these challenges and signals, work with the policy package was initiated, and on 31 January 2008 the City Council gave the Climate Committee the mandate to produce a policy package safeguarding both local and national interests and plans (MoT 2008a). Less than three months later, on 24 April 2008, Trondheim's City Council adopted 'the Municipality of Trondheim's Environmental Transport Package' (MoT 2008c), hereafter 'the Trondheim package'. The Labour Party held almost 44 percent of the vote and the Mayoral seat, and initiated the work with the Trondheim package. At the time, Labour was the largest party at both regional level and in the state Government. The local Labour party thus recognised a window of opportunity to have the package adopted and approved quickly at all three levels, and thus safeguard room for manoeuvre financially. In total, the six parties supporting the Trondheim package held 65 percent of the vote. The package was a local political initiative, but turned into an agreement between the Municipality of Trondheim, Sør-Trøndelag County and the Norwegian Public Roads Administration. In addition, the local and regional public transport provider (AtB) and the Norwegian Public Rails Administration participated in meetings regarding public transport and the Norwegian Cyclists' Association in meetings about cycling.

2.3 Interaction between politicians and planners

Exploration of how political decision-makers reflect on and frame problems and solutions in this article is part of a large project investigating integrated planning, political processes and institutional changes affecting innovation in public transport in Nordic regions. Trondheim was one of three cases. Previous articles focusing on how professionals

involved in integrated land-use and transport planning think and act stimulated our curiosity into how political decision-makers reflect and reason.

When analysing the stories of planners in three case cities through the lens of Butler's (1990, 2010) work on performativity, Lisandrello et al. (2016) described a practice in which professional planners work closely with political decision-makers when successfully developing and implementing plans and projects. On the Trondheim package, the lead planner described how the policy package was a truly political initiative, inspired by previous analyses and plans developed by the professionals. Leading municipal politicians invited him for an informal talk, presented him with a document of intentions, and asked him to develop their ideas into a feasible planning document. The planner saw this as a window of opportunity, since similar ideas had long been under discussion in the professional milieu. They needed to act quickly to complete the package agreement before the next election. The planners explained how active listening and communication with the politicians was crucial if an agreement was to be reached and with respect to objectives and measures. An important repetitive act was reiterating the main objectives to politicians and to the media as a way of legitimating measures to be adopted and of rendering visible their effects on the city and its citizens.

Næss et al. (2013) analysed whether there was consistency or a gap between research-based 'state-of-the-art' knowledge and knowledge claims found in key planning documents in the three Nordic case cities. They found discrepancies in regard to the effects of road capacity expansion on traffic volumes. The traffic-inducing effects of expanding road capacity in congested urban transport systems are well documented, and are explained as results of combined mechanisms working on different time scales. One is that increased road capacity in congested traffic systems normally increases travel speed by car, at least in the short run. In turn, this increases the competitiveness of the private car in regard to other modes and may cause rapid shifts to car-use. It also reduces the resistance to travel, and contributes to shifts towards more and longer trips (Downs 1962, Goodwin 1996, Mogridge 1997, Noland and Lem 2002, Twitchett 2013). Indirect mechanisms working in a longer time perspective have even stronger effects. Increasing travel speed by car allows longer journeys within a given time – people and businesses locating in ways that result in longer commuting and travel distances. Construction of housing, workplaces, retail and other activities in more peripheral, car-based and traffic-generating areas is thus more attractive (Killer and Axhausen 2009, Litman 2015, Noland and Lem 2002, Næss 2012). Under the right circumstances, these mechanisms will contribute to increased car-dependency and traffic volumes up until traffic growth causes congestions anew, but now with more participants (Downs 1962). Despite these mechanisms being well documented, it was found that planning documents often downplayed or ignored the traffic-inducing effects of increased urban road capacity.

When investigating how planners' use and non-use of expert knowledge in planning affect the goal achievement potential of plans, Tennøy et al. (2016) found that if and how this

knowledge is used does indeed affect the goal achievement potential of plans. Relevant expert knowledge is paramount for the knowing and acting of many planners. It affects their framing of problems as well as which measures they consider and suggest. Non-use of relevant expert knowledge was an important part of the explanation as to how and why measures reducing goal achievement potential, such as road capacity expansions, were included in the plans. When competing objectives, understandings or ideas seemingly called for traffic-increasing measures, the planners did not use the relevant expert knowledge to explain that this would reduce the goal achievement potential of plans. One explanation was that planners exercised self-censorship and chose not to bring the knowledge into planning processes since they did not believe they could persuade the political decision-makers to act accordingly. In Trondheim, planners understood very well that increasing road capacity was counter-productive with respect to achievement of the main objectives. They made politicians aware of this, but found it pointless to explain further or to argue about it since their understanding was that political decision-makers were convinced that inclusion of the road capacity expansions was necessary. Tennøy et al. (2016, 15) concluded that the "*expert knowledge in question was ousted when planners understood that the implications were not acceptable in – or threatening to – the local political context*". This illustrated that power relations between planners and political decision-makers may be important explanations when planners include traffic-increasing measures in plans. They illuminate the importance of political decision-makers understanding the effects and consequences of including or excluding certain measures in plans and policy packages, and also their willingness to use or refrain from using certain measures if the transition towards a low emission society was to succeed.

2.4 Aim and research question

In this study, we turned our attention to political decision-makers. We explored how they reflect when including measures that, according to well-documented knowledge, reduce the chances of their plans' main objective being achieved; in this case, to include urban road capacity expansion in a policy package aimed at stopping traffic growth and reducing CO_2 emissions from traffic. The aim of the paper is to improve our understanding of the reflections and trade-offs of local politicians in such situations. We asked: How do political decision-makers reflect on including road capacity expansion in a plan aimed at reducing traffic volumes?

3. Theoretical framework

When exploring how political decision-makers reflect when including measures reducing the goal achievement potentials of their plans and how they reconcile this apparent disconnect, we used Rein and Schön's concept of framing as our main theoretical approach. Rein and Schön (1993, 146) described framing as "a way of selecting, organizing, interpreting and making sense of a complex reality to provide guideposts for knowing, analysing, persuading, and acting". The way an individual frames a problem is affected: by his/her understanding of which objectives are more important (goals, interests,

values); by the context in which the problem is understood (scale, perceptions, discourses); and by their knowledge (scholarly knowledge, lay knowledge, personal experiences, understanding). Goals, context and knowledge cannot be seen independently. They are tightly interwoven, they affect each other, and they influence how an individual frames a problem, which in turn influences how a certain situation is assessed and what are understood as relevant and acceptable actions to solve the problem (see figure 1).

Figure 1 here.

How context, objectives and knowledge influence each other; how, combined, they lead to a framing of the situation; and hence how the situation is assessed and the actions taken.

The *objectives* in the Trondheim package concerning reduced traffic volumes and CO_2 emissions were clearly defined and therefore the politicians might have been expected to stay focused and give them high priority. On the other hand, there will always be an array of objectives in planning processes – some in conflict with the main one. If any conflicting objectives are given higher priority than the main objective in the package, and road capacity expansion is understood as important measure to achieve these conflicting objectives, this could be one potential explanation why political decision-makers find it reasonable that road capacity expansion is included in a plan aimed at reducing traffic volumes and CO_2 emissions from transport.

The *context* in which politicians understand a situation/problem affects their framing of it. According to Lowe (2011), framing must be seen in relation to scale. Whether the scale is neighbourhood, city or region can have a great impact on how we frame a situation and problem, and what measures are seen as appropriate and thus implemented. Scale is thus an important contextual factor. In the Trondheim package (MoT 2008c), noise and traffic accidents have to be reduced at local level. At regional level, the package is supposed to contribute to reduction of land-take and urban sprawl. At global level, CO_2 emissions from traffic have to be reduced if global warming is to be reduced. To understand the action politicians took in the Trondheim package, we therefore needed to understand the context in which the political decision-makers see the problems. If they see problems in a context where expanding road capacity could be perceived as a solution, this might be seen as positive even if it contributes negatively to reducing traffic volumes and CO_2 emissions from traffic. Context also concerns time-scales. Measures contributing to solving problems in the long term may seem inadequate in the short term, while measures solving problems in the short term can be inadequate or contribute negatively long term. Another potential explanation behind politicians finding it reasonable to include counteracting measures, might be that they have shifted their focus from a global and long-term context to a more local and short-term context.

Lastly, the individuals' *knowledge* about an issue influences the causal interrelations they are able to see and understand. Many professional planners have scholarly knowledge

about the interrelations between land-use development, transport systems development and traffic volumes, and it can therefore be expected that politicians working with these issues, usually in collaboration with trained planners, have gained insights as well, and to varying degree. However, those not well schooled in these issues may see lay knowledge, their own experiences and intuitive understanding as just as advantageous as empirical and theoretical expert knowledge. A last potential explanation as to why local politicians find it reasonable to include counteracting measures might be that their understanding and knowledge are not aligned with the expert knowledge in the field.

Normally, politicians will have to see a problem in local, regional and global contexts, and in long-term and short-term perspectives. They will have multiple objectives that sometimes conflict and they will have to place them in order of priority. They will have varying degrees of knowledge concerning a number of relevant issues in specific cases. Based on an understanding of what defines an individual's framing – its effect on how a situation is assessed, its problems defined and solutions arrive at – we believe that this is a fruitful approach when investigating the objectives politicians in Trondheim consider most important; the context they see the problems in, as well as their knowledge of interrelations between road capacity expansion and traffic growth.

4. Research design and methodology

Our research was designed as an explorative case study of how political decision-makers reconcile the apparent disconnect between policy measures and stated objectives in a plan they themselves have been part of designing. A case study was therefore a good choice of methodology, as the research questions we are posing are problem-driven and aimed at a deeper understanding of the issue, rather than methodologically driven and aimed at an overview of the breadth of the phenomenon. According to Flyvbjerg (2006), this is what constitutes good social science. Case studies are essential in developing social science, and thorough case studies are necessary as "[...] *a discipline without exemplars is an ineffective one*" (Flyvbjerg 2006, 242, based on Kuhn 1987). The main data-collecting methods were document studies and semi-structured in-depth interviews.

First, we read the relevant background documents and studied the package agreement in-depth to gain knowledge and insights into the process and final agreement, i.e. why and when the Trondheim package was initiated and adopted. The main documents examined were national guidelines and white papers (Ministry of Climate and Environment 2007, Ministry of Transport and Communications 2009), as well as documents on the Package and the agreement itself (MoT 2008a, 2008b, 2008c).

When attempting to access the observations of others and learn from people's own experiences, interpretations and perceptions, interviews are particularly suitable method (Weiss 1995). To gain insight and understand how the package's objectives and measures emerged, and also why the politicians acted as they did, we interviewed five key politicians, appointed by their parties to be closely involved in the design and adoption process, in-depth. We also interviewed the Mayor of Trondheim, who had been hands-on

involved in initiation and design. Using transcribed interviews and notes, we first analysed each interview in light of the package documents. Our aim was to strengthen our knowledge of each politician's assessment of the final package and its measures, as well as their reflections and actions on the process. Then we analysed and compared the interviews with the aim of understanding the politicians' reflections in the theoretical framework.

The interviews took place in June 2011, three years after the package was adopted. Six parties supported it, but because we were not able to interview the key politician from one party, only five are part of our data collection. All interviews were conducted one-to-one, and lasted approximately one hour. We focused on: (i) their explanations as to why these objectives and measures were included, with special attention to road capacity expansion; (ii) their explanations about how and why the measures would contribute to goal achievement; and (iii) how politicians perceived their own package compared to expert knowledge. Together, these three insights helped us understand the politicians' framing, their assessment of the situation and their actions. As part of quality assessment, all interviewees were offered the opportunity to control and correct our minutes from the interviews.

5. Findings

In the interviews, we focused mainly on explanations given by the politicians about why road capacity expansion and road-building were seen as appropriate measures, and how they explained this in relation to the main objective of the Trondheim package. This is explained in our theoretical framework. Lastly, we also studied how they perceived their package compared to the expert knowledge in the field and why a 'theoretical ideal package', in this case one with no road capacity expansion, was not considered.

5.1 Objectives, context and knowledge

Politicians readily talk about the *objectives* in the Trondheim package and explain that the measures included are a holistic way of trying to reach the main objective. However, when questioned about how the road capacity expansion measures fit, they explain that while a capacity increase is not unproblematic given their main objective, it is an important measure to relieve congestion. They emphasise that the estimated population growth would increase transport demand and road traffic significantly, and that the current congestion problem would deteriorate further. All but one politician explained that congestion was a problem in itself, as well as in regard to time spent in traffic and to costs for individuals, businesses and society. Congestion is perceived as a problem for both public transport and essential traffic, e.g. 'mobile offices' (tradesmen of different description) and freight, because they are held up in the same queues as private cars and 'inessential traffic'. The necessity of road capacity expansion is thus mainly explained based on local, socio-economic factors. However, politicians also explain that congestion is a problem: as cars jammed up in traffic release more CO_2 than cars in free flow; as it leads to increased traffic through areas where it is not wanted, as traffic spills onto other roads in an attempt to avoid queues; and as through-traffic (and freight) on the main road between north and south

Norway cutting through Trondheim is delayed by local congestion. Other explanations for the necessity of road capacity expansion, some of which may be linked to congestion (relief), is to: reduce bottlenecks in the system; improve traffic flow throughout the system; improve accessibility to the city centre; relieve residential areas, school routes and central areas of vehicular traffic; improve local environment; and increase accessibility, safety and road standard. Only one politician believed that road-building was not the answer to congestion, and explained that "*what the others want to accomplish with the package is to increase road capacity.* […] *my party is sceptical* to *the road projects in the package, and tr*ies *to reduce them".* His party only joined in to reduce 'the damage done' by road-building as much as possible, and to work towards a maximum of environmentally friendly measures. All the other politicians explained the necessity of road capacity expansion as an answer to their priority objective (as they say themselves) of relieving congestion, an objective not stated in the Trondheim package documents. There thus seems to be an inherent goal conflict between the main objective of reducing CO_2 emissions stated in the package and the politicians' verbally stated objective of relieving congestion. We will return to this in our Discussion section.

When the issues at hand is multi-faceted, it can be difficult to separate between different *contexts and scales*. All the measures in the Trondheim package can be defined as local because they are implemented in a local context. However, the problems these measures should contribute to solve, could be local, regional, national or global. When talking about the Trondheim package during interviews, the politicians shifted between local and global scales – one minute on congestion and local environment as benefactors of road capacity expansion, the next on how local measures such as densification of work places and housing lead to more walking and cycling and thus less CO_2 emissions from traffic into the global sphere. Only one politician explains that the main problem to be solved was the global objective of reducing CO_2 emissions. He argues that road capacity should not be increased because it leads to induced traffic and increased CO_2 emissions. The others explained the need for road construction as answers to local problems, e.g. local congestion; few if any ring roads keeping traffic and heavy motor vehicles outside the city; the challenging city topography (steep hills), which is a safety issue during winter months; and a road network that would not cope with future traffic flows.

Turning to *knowledge*, we were curious about whether the politicians were aware of the causal interrelations between road capacity expansion and increased traffic volumes and CO_2 emissions. No one refuted this, and most stated openly that they did know about it, while some implied it. One stated that "[…] *everybody knows that road capacity expansion encourages increased car use*", one said: "*you can't build your way out of congestion, you have to find other solutions*", and yet another "*many might say it is censurable that we call it an Environmental Transport Package, when such a large proportion of road construction is included"*. However, they went on to explain how they would counteract the expected rise in traffic volumes with other measures such as cheaper and faster public transport with improved frequency and geographic coverage, as well as better

infrastructure for cycling and walking. Furthermore, by converting car lanes into bus lanes, establishing road tolls with higher peak charging and making it harder and more expensive to park in city centres, the conditions for car-use would be poorer. Together, these measures will help restore the competitive balance between different transport modes, and counteract the increased competitiveness reduced congestion gives for the private car. The knowledge politicians have of expanded road capacity, of mitigating measures towards increased car-use and of how changes in one mode's competitiveness is likely to affect use of others, is thus in accordance with current expert knowledge in the field.

5.2 How politicians perceive expert knowledge and a 'theoretical ideal package'

Given that politicians' knowledge is in accordance with the current expert knowledge, we asked how their package compared with the expert knowledge in the field, and why a "theoretical ideal package", in this case one with no road capacity expansion, was not considered.

When asked about expert knowledge, all politicians boast about the competence and knowledge of those involved in the Trondheim package and about the work done, including municipal in-house expertise. They tell us about close cooperation and dialogue during the design phase, and that they believe the expert would vouch for the measures included. They state that their package is mostly in line with expert knowledge. However, they also make statements such as "*even professional recommendations differ", "they know a lot, but they might benefit from being reviewed by politicians"* and *"we politicians have to use common sense, and during discussions we find reasonable solutions*". As discussed earlier, they are well aware of how their package differs from 'a theoretical ideal package'.

When asked why they didn't opt for the 'theoretical ideal package' with no road capacity expansion, they tell us that "*as politicians we have to take other considerations into account than an expert does", "politics is 'the art of the possible'; you have to negotiate towards acceptable solutions for all participating parties*" and "*even though you come up with an ideal system to achieve your goals, it may not be ideal in real life. If you fail to get the people's understanding of its necessity, then it may not work as you think it will*". Hence, it may be that politicians also consider the response of their voters when in political processes, and thus that this affects the design of the package.

6. Discussion

Our starting point in this article was to explore *how political decision-makers reflect on including road capacity expansion in a plan aimed at reducing traffic volumes*. We analysed the politicians' reflections and the apparent goal conflict in light of the theoretical framework and the three potential explanations as to why *political decision-makers find it reasonable to include road capacity expansion in a plan aimed at reducing traffic volumes*. We discussed if and how political considerations might have affected the Trondheim

package, and then the politicians' ways of thinking and acting against the two paradigms presented in the Introduction.

6.1 Politicians' reflections on including road capacity expansion in a plan aimed at reducing traffic volumes

The apparent goal conflict identified in our findings seems to be that between the main objective of reducing CO_2 emissions stated in the package documents and the politicians' verbally stated objective of relieving congestion. The first potential explanation – that *politicians gave priority to objectives other than reducing traffic volumes and CO_2 emissions* – thus might be the reason why this goal conflict emerged. When politicians focus on congestion relief as an objective, their attention turns to solving a local problem rather than the global one of reducing CO_2 emissions. Road capacity expansion is seen as a measure contributing to solving the local congestion problem, and politicians thus don't see the problem of including a counteracting measure in their plan.

Drawing on this, the second potential explanation – that *they have shifted their focus from a global and long-term context to a more local and short-term context* – might be important in why they are comfortable including road capacity expansion and also for the identified goal conflict which seems to have its origin in issues of different scales; reducing CO_2 emissions is an answer to a global climate problem, while congestion relief is mainly a local socio-economic transport problem.

Lastly, we were curious if and how politicians reconcile this apparent disconnect and its inherent goal conflict. We know that they all know the causal interrelations between road capacity expansion and induced traffic, and that they are well aware of how the competitive balance between modes can be affected (see section 5 above). The third potential explanation – that *their understanding and knowledge are not aligned with the expert knowledge in the field* – is thus not correct. However, it is interesting to note that even though the politicians possess this knowledge, instead of using it to argue against road capacity expansion they use it to justify road capacity expansion as a measure to solve local congestion problems. As they also possess the knowledge on how to mitigate the induced traffic effects of road capacity expansion, they do not see this apparent disconnect as a goal conflict, but instead as a way of 'solving it all'.

Based on our findings and the above discussion, the politicians' framing of road capacity expansion in the package can be drawn:

> In Trondheim we have issues related to local congestion problems (context), which need to be relieved (objective), and increased road capacity is an important measure in solving this problem. We know that this leads to induced traffic, but we will counteract the negative effects with various positive and restrictive measures aimed at strengthening public transport, bicycling and walking (knowledge).

Based on this framing, the politicians assess the situation as follows:

> Increased road capacity will increase traffic volumes and thus CO_2 emissions, but through mitigating measures we will compensate for this effect. We thus believe it is acceptable to include road capacity expansion.

This leads to action, which in this case is to support and participate in the Trondheim package and thus support road capacity expansion. However, some politicians also state that "*These roads would have been built either way, but this way at least we were able to get some measures targeting environmentally friendly transport out of it*".

Only one politician supporting the Trondheim package does not support road capacity expansion. He focuses on the global context with a long-term objective of reducing car traffic and CO_2 emissions. He explains that his party only took part in the package to mitigate the negative effects of road capacity expansion. For him, we can draw a framing sounding something like this:

> In Trondheim we have issues related to increasing traffic volumes and CO_2 emissions (context). Road capacity should thus not be increased. The Environmental Transport Package has granted half its funding for road building, and the only way we would be able to argue this self-contradiction was through participation (objective). Even though we have signed for the road capacity expansion, we will do what we can to reduce the road capacity expansion measures, and to strengthen the various positive and restrictive measures aimed at strengthening public transport, bicycling and walking (knowledge).

He thus assesses the situation a little differently from the other politicians:

> Increased road capacity will increase traffic volumes and thus CO_2 emissions, but the Trondheim package enables other positive measures that otherwise would likely not be implemented.

The outcome is that this politician takes the same action as the others, but based on a slightly different framing and assessment of the situation.

Since the same reasoning, explanations and objectives recur, a question arising from the similar framing among politicians supporting the package is whether a shift of frames has occurred. Politicians are actors in constant change, and they continuously respond to and learn from the situations they find themselves in. According to Rein and Schön (1993), a shift of frames may occur when one attains new knowledge, new experiences or new objectives. As a political compromise between six parties, it is not unlikely that the process started with politicians having (partly) conflicting frames. Consensus on why increased road capacity is necessary, as well as on how the stated objective of reducing CO_2 emissions can be achieved, may indicate that shared frames have been reached during the political negotiation process over time and through discussions and dialogue. This might be a result of gradual and subconsciously changing frames (Rein and Schön 1993). It may also be, as the representative from one of the parties says, that *"[…] when one reaches a*

compromise within a negotiation process, you'll be responsible for the entire package. […] Then, you really can't criticize the compromise you were a part of designing".

6.2 How political considerations might affect the Trondheim package

As discussed under Findings, all politicians boast about the competence and knowledge of the experts involved in the package, including municipal in-house expertise. However, when asked why they didn't opt for a package with no road capacity expansion, they tell us that they "*have to use common sense, and […] find reasonable solutions".* As politicians, they probably need to consider how their actions reflect on both themselves and their political party, and how it might resonate with their voters. As we did not ask them directly if and how considerations towards their voters affected their actions, these are questions we don't know the answers to. However, reading between the lines there are indications that some political considerations are made: *"We must explain to our voters why we believe this is the way to move forward".* Furthermore, even though politicians' knowledge aligns with the expert knowledge in the field, it might be that their voters' knowledge is not. If politicians believe their voters will not support their 'ideal proposal', whether based on knowledge or not, it might be that they pocket some of their principles to please their voters; this in an effort to ensure re-election and the possibility of political influence also after the next local election. This is much in line with Tønnesen's (2015a, 90) statement that "*political and public acceptance is highly important in the implementation of transport policy packages".* While the desire for re-election probably influenced politicians in Trondheim, in this case it seems to have been based more on a desire to continue the developmental path the city was following, rather than to please their voters. Based on the interviews, there seems to have been an understanding that 'we know better'. One politician explained: "*When we first introduced the idea of changing the existing car lanes into public transport lanes, the people were furious. But now surveys show that most believe this was a good idea"*.

6.3 Ongoing shift of paradigms

A still ongoing shift of paradigms often confuses discussions on interrelations between road capacity and traffic volumes (Banister 2008, Owens 1995, Owens and Cowell 2002). It is thus interesting to discuss the politicians' reflections and actions in light of the two paradigms presented in our Introduction. We find that they use both old solutions (road capacity expansion from the 'predict and provide' paradigm) and new solutions (on how to curb traffic growth from the 'predict and prevent' paradigm) to achieve their overall objective, which is "*to reduce CO_2 emissions, limit car traffic and improve conditions for walking, cycling and public transport"* (MoT 2008c, 1). The problem is that these theoretical paradigms are incompatible because while one facilitates increased traffic the other try to hinder it. The politicians try to provide for and prevent car traffic at one and the same time, and thus have a foot in each paradigm. This is in line with what Banister (2008, 74) discusses as *"the contradiction between the desire to speed up and the desire to slow traffic down".* They try to 'solve it all' and cannot make priorities. This might be a

problem because development continues down the same path as before. It cannot be concluded that politicians' reflections are completely in line with either of the paradigms presented in the Introduction. However, as they have started to include various positive and restrictive measures to curb car traffic and shift modal splits towards more sustainable mode shares, there are indications that in Trondheim there is an ongoing shift towards a sustainable mobility paradigm.

8. Concluding Remarks

Transitioning towards a low emission society is a goal stated at numerous international and national political and administrative levels. A necessary part of this transition is in reducing environmental impacts from transport, through technological developments and shifts towards low-/no-carbon fuels, and through land-use and transport development in ways that reduce car-dependency and traffic volumes. The latter, which has proved difficult in many cities and countries, was the starting point for our explorative study.

In the case of Trondheim, knowing that planners made politicians aware of the effects of road capacity expansion on traffic volumes (Tennøy et al. 2016) made it particularly interesting to explore how political decision-makers made use of this knowledge. Against this backdrop, we chose to study Trondheim's Environmental Transport Package, which was the first in Norway to include a strong environmental profile and a main objective of reducing CO_2 emissions and limiting car traffic. However, at the same time it included measures that increased road capacity, which, according to research-based knowledge, clearly reduced the chances of the defined objectives being achieved. It was thus a unique opportunity for us to analyse how development negatively affecting future sustainability mobility is rationalised.

In 2012, the Norwegian Government adopted a zero-growth objective, which meant that increasing transport demand caused by population growth in the largest Norwegian cities should not to bring about growth in road traffic volumes (Ministry of Climate and Environment, 2012). While aiming for a transition towards more sustainable mobility, it is particularly striking that road capacity expansion is under planning or implementation in most main cities in Norway. This illustrates that our specific case is relevant beyond the context of the Trondheim case. Since increased urban road capacity induces and allows increased road traffic, these actions counteract strategies aimed at reducing car-dependency and traffic volumes in cities. Our exploration of how political decision-makers reflect on their own actions, and on if and how they reconcile an apparent disconnect between stated objectives and the policy measures, is a step towards better understanding how political decision-makers reason with these kinds of contradiction. Our findings indicate that the politicians did indeed make use of the expert knowledge provided, but that they found their own way of using it, i.e. not arguing against road capacity expansion, but justifying it. As political decision-makers are ultimately those who decide what measures will and will not be implemented, a first insight into how they reason might be a step towards better

knowledge on how planning policy could be developed in ways providing better opportunities for shaping future sustainable mobility.

We believe that our explorative study on how particularly motivated political decision-makers reason when facing goal conflicts and contradictions, may contribute to a better understanding of what hinders transition towards more sustainable mobility. The insights presented are probably not exclusive to Norway, and might contribute to similar discussions in other sectors and levels concerning what hinders necessary transitions. Deeper knowledge and better understandings might provide opportunities to influence politicians' framing and actions early on, before they include measures counteracting stated goals. This can potentially have large effects on future planning practices and policies, and spur transition towards a sustainable future and a low emission society.

Acknowledgements

We would like to thank the anonymous referees of Applied Mobilities, as well as the editors, for valuable comments on previous versions of the article.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

The research on which this article is based is part of a master thesis, Institute of Transport Economics, Strategic Programme on Sustainable Urban Development and Mobility [grant number 4323].

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