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Creating Transformative Force? The Role of Spatial Planning in Climate Change Transitions Towards Sustainable Transportation

R, HRELJA^{*}, M, HJERPE^{**}, S, STORBJÖRK^{**}

^{}VTI - Swedish National Road and Transport Research Institute, Linköping, Sweden.*

^{**}Centre for Climate Science and Policy Research and Tema Environmental Change, Linköping University, Linköping, Sweden.

ABSTRACT

Informed by the concept of strategy-making, this paper analyses the ability of spatial planning to support local climate change transitions towards sustainable transportation in two case studies of planning in Swedish municipalities with comparatively high climate ambitions. The analysis shows that the expectations on planning to effect change need to be moderated. Not even in these climate-ambitious municipalities did transportation planning result in strategic reorientation. While climate change was clearly filtered into local strategy-making, no new climate frame was established. Rather in goals it was linked to an overall attractive city storyline. Transportation planners have sought to mobilize force through developing new tools and routines to strengthen the role of climate change. In detailed planning, however, when plans become legally binding, agency in relation to climate change was limited by allowing private actors a pivotal position. Also, tools were used selectively and when settling priorities, climate change was subordinate to economic growth interests. While the planning observed can be regarded as weak, its ability to support climate transition would have been even weaker had it not been linked to the attractive city storyline. Consequently, to facilitate

Corresponding address: R, Hrelja, VTI - Swedish National Road and Transport Research Institute, Olaus Magnus väg 35, SE 581 83, Linköping, Sweden. Tel.: +46 (0)13 20 40 84; Email: robert.hrelja@vti.se.

climate transition mobilizing force needs to be generated within the current local implementation structure.

KEY WORDS: climate change, spatial planning, transition, transportation, strategic reorientation

1. Introduction

“Climate change requires us to reorient our spatial planning to pay more explicit and systematic attention to future possible pathways” (Wilson & Piper, 2010, p.13)

Current planning literature dealing with climate change assigns spatial planning an essential, albeit not sufficient, role in facilitating local climate change transitions by means of reforming current planning routines and concrete decision-making practices (Campbell, 2006; Swart & Raes, 2007; Davoudi et al., 2009; Wilson & Piper, 2010). Planning is also expected to provide strategic and reflexive potential that will permit the rethinking of current urban development patterns and the concretisation of alternative development pathways (Healey, 2009; Tewdwr-Jones et al., 2010; Albrechts, 2010). Planning is hence perceived as having a strong position to improve policy coordination and integration by enabling consideration of goal conflicts and competing interests to facilitate transition (Hurlimann & March, 2012; Uittenbroek et al., 2012).

However, climate policy studies also indicate that planning tends to play a limited role for climate change transitions in practice, suggesting that the policy expectations and identified capacity to govern climate change have not translated into sufficient action (Biesbroek et al., 2009; Adger & Barnett, 2009; Berrang-Ford et al., 2011; Preston et al., 2011; Romero-

Lankao, 2012). Fragmented planning practices, supporting ad hoc solutions and business-as-usual despite often ambitious climate goals and expectations, are well documented (Bulkeley, 2006; Blanco & Alberti, 2009; Mickwitz et al., 2009; Measham et al., 2011; Runhaar et al., 2012; Storbjörk & Hjerpe, 2014). Studies also document how planning is exposed to changing governance and reform, driven by trends, including public involvement, neo-liberalisation and new public management (MacCullum & Hopkins, 2011; Gunn & Hillier, 2012; Campbell et al., 2014). Planning nowadays needs to handle a dynamic complex of multiple actors, perspectives, agendas, policy problems and areas, suggesting that contemporary planning has rarely been weaker than today (Campbell et al., 2014).

These diverging perspectives on spatial planning – as strong versus weak – reveal the need for a critical discussion about the capacity of planning to effect change. Accordingly, this study aims to analyse the ability of spatial planning to support local climate change transition processes, i.e. the generation of new planning routines and decision-making practices. Specifically, three research questions informed by planning theories about how strategic reorientation of planning can be accomplished (Albrechts, 2010; Healey, 2007; Healey, 2009) are addressed:

- How is climate change filtered, focused and framed in local spatial planning?
- What tools and procedures are established to mobilise change?
- What counteracting tendencies and trends are identified?

Empirically we zoom in on the question of transportation as a practical example. Transportation was chosen not only because it is the second largest greenhouse gas emitting sector (after energy) in the EU and that, contrary to other sectors, transportation emissions are increasing (EC, 2014) but also since it has proven to be particularly path-dependent (Granberg & Elander, 2007). Previous studies have shown how local authorities often lock themselves into car-dependent futures that hamper their attempts to make sustainability transitions. This

is particularly evident in planning for retail developments that contribute to urban sprawl and increased car-dependency (Hrelja, 2011; Hrelja et al., 2012; Isaksson & Storbjörk, 2012) and the high priority given to economic considerations in transportation planning (Bulkeley & Betsill, 2003). There are also fewer transportation studies than energy studies (Bulkeley, 2010) and while the importance of strategic planning of transportation systems for responding to climate change is acknowledged, studies mostly address operative aspects rather than strategic planning (Romero-Lankao, 2012).

We also need to acknowledge that singling out transportation has its consequences since it is one sector issue in the wider local governance landscape. Firstly, urban governance of climate change scholars have increasingly demonstrated that responses to climate change are taking place in a multisector, multilevel and multi-actor context, that is across actors and spatial scales in society (e.g. Davoudi et al., 2009, Bulkeley, 2010, Romero-Lankao, 2012). Spatial planning hereby involves coordinating, balancing and integrating various sectoral goals, ambitions and considerations e.g. housing, energy, economic development, transportation and water (Wilson & Piper, 2010; Albrechts, 2010). This is particularly important to acknowledge since previous studies have documented the importance of finding local hooks in order to induce municipal climate responses, i.e. ability to reframe climate change locally in a way that is sufficiently pressing and/or that carry the potential for significant co-benefits to spur action (Bai, 2007, Bulkeley, 2010, Hjerpe et al., 2014). Recent Canadian studies have indicated that transformation is not triggered by climate change policy alone and that connections to wider development issues needs to be acknowledged (Burch et al., 2014). It has been shown that leading municipalities work with an integrated sustainable development strategy that has greater potential for both climate adaptation and mitigation transition (Shaw et al., 2014).

While zooming in on transportation, the study design and analysis allows us to acknowledge broader governance processes that influence the capacity for change of spatial planning routines and decision-making practices by including policies and strategic plans from several planning departments and in several stages of the planning process as well as planners and managers from a wide range of departments in the municipal administration. Our case studies were conducted in two Swedish municipalities whose work can be characterized as strategic urbanism, where climate change instead of being voluntary becomes “integral to the pursuit of wider urban agendas” (Bulkeley & Betsill, 2013, p.140). Karlstad and Sundsvall are chosen because of their comparatively high climate ambitions. Where could one expect to find signs of transitions, such as reforms in planning routines and concrete decision-making practices, if not in municipalities with high climate ambitions? The municipalities therefore represented critical cases for analysing the ability of spatial planning to support local climate change transition processes in a decentralised Western planning context.

2. Analytical framework

Given the diverging perspectives on spatial planning, its ability to support local climate change transition processes was explored using the concept of strategic spatial planning. Spatial planning extends beyond regulating land use change to involving elements of integrating strategies, policies and considerations, as well as strategically managing and influencing change as part of broader governance processes (Albrechts, 2010; Tewdwr-Jones et al., 2010). The scholarly ambition with extending planning theory to encompass strategy making is to address some of the problems of previous planning approaches and adapt planning practices to cope with contemporary challenges, such as climate change, fragmentation and economic competition (Haughton et al., 2010). Among the more influential contributions are the works of Albrechts (2010) and Healey (2007; 2009). According to Healey, a planning process is never strategic “by default” and strategy-making “challenges

practices that are justified in terms of 'following established procedures' or 'this is what we have always done'" (Healey 2007, p.30). Strategy making, thus, involves creating a dedicated process for the *realisation of a certain goal or vision*, such as climate change transitions. Similarly, Albrechts (2006, p.1152) defines strategic planning as a process "through which a vision, coherent actions, and means for implementation are produced that shape and frame what a place is and what it might become". Moreover, strategic planning comprises a "structuring dimension", implying responses such as infrastructural change (Healey, 2009, p.440).

These notions of strategy grew out of an understanding of planning inertia as a consequence of routinized practices embedded in powerful discourses and cultural assumptions, which hold them in place despite attempts at change. As regards the strategic elements, planning theorists have suggested ways in which reorientations can be accomplished. Healey identifies three key elements that may produce "transformative force" by generating new routines and practices (Healey, 2007; 2009). The first two elements cover how a given issue like climate change is filtered and framed in the local planning agenda, resulting in specific interpretations in formal and informal settings. The third element relates to power mobilisation around these interpretations (Healey, 2007). Taken together, they create the potential for transformative force.

2.1 Filtering of ideas

The filtering of ideas includes key moments or practices that influence the attention given to climate issues in the planning of an urban complex and shape the understanding of climate issues in relation to other issues. It includes or excludes different meanings (Healey, 2007; 2009). The first step in our empirical analysis examined how and why climate became an issue for planning in Sundsvall and Karlstad. In particular, it examined how climate issues are

viewed in relation to traditional transport policy paradigms establishing cars as the dominant mode of travel.

2.2 Focusing and framing

In order to enable transition, strategic planning requires a ‘frame’ that functions as an organising principle, defining what counts as relevant for attention. Framing represents a selective, simplifying and thus political process that can come about as a result of a systematic search, after active campaigning or emerging from a creative collective process (Healey, 2009). The formation of a strategy is ‘more than an aggregation of issues and claims that have survived prior filtering processes [...] Strategy formation [...] involves the generation and consolidation of a new frame with its supporting storylines and metaphors’ (Healey, 2007, p.189). Framing, hence, concerns judgements about what to position frontstage’ and what to leave ‘backstage’ (Healey, 2009). Healey underscores that filtering, focusing and framing evolve interactively.

Following this, the second step of our empirical analysis explored how climate and transportation are framed, focusing particularly on whether new frames are developed and how transportation is linked to visions that shape what Sundsvall and Karlstad are, and might become.

2.3 Generation of mobilising force

Force is mobilised by creating formal legitimacy for specific action, creating advocacy coalitions and engaging strategic leaders with the ability to influence practices and use the forces of economic interests, etc. (Healey, 2007). Mobilising force is about creating a pattern of ”policy statements, plans, programmes, actions (short-term, medium-term, and long-term), decision and resource allocation” (Albrechts, 2006, p.1161f). When addressing mobilising force, ”the complexity and dynamics of urban development requires working across

disciplines and professions and acquiring different kinds of knowledges. Exploring such dynamics is about finding out [...] what action possibilities exist to affect the outcome” (Healey, 2009, p.448).

The third step of our empirical analysis examined the tools and working procedures with which force is mobilised. A number of problems emerged with the current mobilisation that was also examined.

The strategy-making idea is that these three elements together outline how reorientations of planning can be accomplished and help identify how climate issues are negotiated, and viewed in relation to other issues in the wider governance context, from municipal comprehensive planning at the more general level to concrete local development planning initiatives.

The context in which planning practices occur decisively affects their outcomes. In the next chapter the Swedish policy context, and wider governance trends that shape the force in planning is presented.

3. The Swedish policy context

There have in several European countries been reforms of planning legislation with the ambition to make planning laws and procedures simpler, and more efficient to enable flexible responses to economic opportunities (e.g. Campell et al., 2014; Gunn & Hillier, 2012; MacCullum & Hopkins, 2011). We see these reforms, and the responses they trigger in local planning, as important broader governance trends that needs to be taken into account when analyzing the ability of spatial planning to support local climate transition processes.

Sweden mirrors some of these neoliberal, and often pro-growth reform trends. Since the 1980s, planning in Sweden has been influenced by New Public Management reforms

(Mäntysalo et al., 2011). Planning laws and processes are still criticised for being too bureaucratic and time-consuming, and there is a call for more flexible local decision-making. Swedish planning is weak at the regional level and the national level merely provides a legal framework and rules and goals to be fulfilled. In 1987, responsibility for overall planning decisions in Sweden was shifted from regional to municipal authorities. As a condition of this decentralisation, requirements were incorporated into the municipal comprehensive plans (MCP) (whereby the municipalities had to specify a desired direction regarding long-term land use (SFS 1987:10). Although the topicality of these plans needs to be reasserted every fourth year, they differ in how often they are revised. In Karlstad MCPs were accepted in 1997, 2006 and 2012 and in Sundsvall 2005 and 2014. In fact, the Swedish municipalities enjoy a comparatively elevated status in the planning system, and each municipality has the exclusive right to formulate and adopt land use plans, as indicated by the term “local planning monopoly”. However, the Swedish MCPs are not legally binding, while the detailed development plans are.

Swedish municipalities are also solely responsible for the local road system apart from national roads, which are planned, built and operated by the Swedish Transport Administration. This strong municipal influence over transportation and land use provides mandates and instruments for local climate change transitions, at least in theory.

The Swedish climate change strategy has evolved gradually since the late 1980s and national governance is rather indirect, reflecting wider Swedish environmental policy and decision-making. The Swedish parliament adopted a national climate change strategy in 2011. The parliament also adopted 16 environmental quality objectives, one of which “Reduced Climate Impact”, states that global greenhouse gas emissions must be reduced by 50–70% from the 1990 levels by 2050, and must be close to zero by the end of the century (SEPA, 2014). These

goals are not binding for the municipalities, so they also have considerable discretion in the climate area.

Sweden exemplifies a sort of national "non-steering" of climate considerations in both local land use and transport planning. The municipalities have strong political power, and the necessary planning tools, but these are not necessarily employed in practical planning. Research has shown that Swedish municipalities typically see "their" city as part of a hierarchy of economically competing cities (Kåpe, 1999) giving businesses a potentially strong influence over municipal planning (Hrelja, 2011) allowing them to play municipalities off against one another. Due to the decentralized planning context, there are few checks and balances when local planning result in residential, industrial, and retail developments that contributes to urban sprawl and increased reliance on automobiles resulting from ambitions to attract citizens, consumers and business from neighbouring municipalities (Hrelja et al., 2012).

4. Method

The municipalities analysed have comparatively high climate change ambitions. They were selected through a delicate process (described more fully in Thoresson, 2014). First, national surveys on municipal climate activity (SSNC, 2010; SALAR, 2009) and national rankings on how municipalities approach environmental sustainability (Miljöaktuellt) were examined, resulting in a list of 30 candidates. Next, the number of municipalities was narrowed down to nine through interviews with representatives of seven national authorities. Finally, scoping interviews were held with officials working with spatial planning and climate change in each of the nine municipalities. This allowed validation of their positions in national rankings and provided up-to-date information about local climate activities. Based on this, Karlstad and Sundsvall were selected for further studies (Fig. 1).

Both municipalities are located in south-central Sweden, Karlstad in the river Klarälven delta on the shores of Lake Vänern and Sundsvall on the shores of the Gulf of Bothnia, about 380 km north of Stockholm. The land area of urban Karlstad is 30.3 km² and in December 2012 its population was about 62000, or 87000 including rural areas (Karlstad, 2013b). The land area of urban Sundsvall is 27.5 km² and in December 2012 its population was about 50000, or 97000 including rural areas (Sundsvall, 2013).

Figure 1. Location of Sundsvall and Karlstad.

Focus group (FG) interviews and content analysis of plans and policies were used to identify how climate change and transportation issues are handled in planning. In each municipality, central planning and policy documents with a bearing on climate transition were retrieved and systematically studied. These documents included the overall comprehensive plan; in-depth comprehensive plans; city visions; climate and traffic strategies; and project documentation.

Four FG interviews were conducted with a total of 24 managers and planners involved in strategic and/or detailed planning with a bearing on traffic in order to allow broad, in-depth qualitative analysis of important perspectives, viewpoints and experiences of implementing responses to climate change in planning. FGs have been described as group interviews guided by a moderator using a set of predetermined discussion topics (Morgan, 1998). Using a semi-structured FG approach, similar general, open-ended questions were posed to each group, accompanied by follow-up questions depending on the FG participants' own dialogues. The FG interviews discussed how climate change was approached in spatial planning in general and in concrete detailed planning.

In each municipality, one FG consisted of planners and the other of heads of departments involved in planning in the municipalities. One complementary interview was held with a town planner in Sundsvall. The FG interviews lasted approximately 3 hours each and the complementary interview about 1.5 hours. All interviews were audio-recorded and transcribed verbatim. The analysis of the material was performed stepwise. First, the meanings in the transcribed text were concentrated, with the focus on the specific contents and different recurring analytical themes featuring in the responses (Marková et al., 2007). Second, themes with a particular bearing on climate change strategy making were outlined. When presenting the empirical results, respondent statements and reflections are emphasised, combining individual viewpoints with more general patterns. The validity of our interpretations is strengthened by comparing statements from different interviews (Silverman, 1993) meaning that many of the quotes presented function as examples of general analytical patterns. However we also allow interpretations based on singular statements, where the analysis reflects individual views and experiences, as these sometimes highlight important alternative perspectives that deepen our understanding of strategy-making.

5. Results

The findings from the FG and individual interviews and planning documents are presented below, organised around the research questions, beginning with filtering of ideas, followed by focusing and framing of the strategy and then generation of mobilising force.

5.1 Filtering of ideas

The filtering of ideas concerns key moments and practices influencing the attention given to climate change in local planning. The data suggest that climate change has become part of local strategy making and, consequently, has shaped the understanding of planning. In both municipalities, long-term planning documents and planners refer to the need for a paradigm shift, implying that transport by foot, bicycle or public transportation should be prioritised over car traffic. This is illustrated by a manager in Karlstad:

”The planning ideal of the 1960s has established frames for contemporary public transport, which one needs to abandon to establish competitive public transportation”

In Karlstad, the goal is to reduce emissions by 25% per capita (Karlstad, 2012b). The emissions and car traffic targets are accompanied by detailed targets for travel-time ratios between car traffic and bicycle, as well as public transportation.

This paradigm shift is part of a long tradition of considering environmental and transportation issues in planning. In Karlstad, there were alarming reports during the 1990s about poor air quality in the city centre (Karlstad, 2006). This spurred improvements in public transportation and some physical changes in order to reduce car traffic. As the climate change issue gained prominence in Sweden, the focus in Karlstad shifted towards reducing CO₂ emissions from

car traffic, while still retaining the overall goal of maintaining a good, healthy living environment (Karlstad, 2012b).

The comprehensive plan for Sundsvall also refers to a sought-after paradigm shift:

”Since the 1950s the car has been the norm for urban and traffic planning. This norm has caused a separation and differentiation of modes of transport, as well as societal functions. [...] We are now facing a challenge to break away from this norm to create better opportunities for sustainable transport” (Sundsvall, 2012a, p.4)

In contrast to Karlstad, planners in Sundsvall do not share the same relatively long prior history of working with sustainable transport planning. Rather, their ambition is primarily driven by the prominence of climate change mitigation in general Swedish society and politics. Similarly to Karlstad, planning documents and planners in Sundsvall connect transportation, particularly transport emissions, with establishing a good, healthy living environment.

To conclude, the empirical data demonstrate that climate change has filtered into local strategy making, reflected by the strategic plans and ideals voiced by municipal officials, indicating support for a reorientation of planning in view of climate change. Filtering, perceived as the ways in which climate change becomes an object in local strategy making, differs between the municipalities. Hence, there are different backgrounds to the ambition suggesting paradigm shift. A similarity is that the traffic emission reduction targets are managed from what could be termed an integrated planning perspective, where transportation and land use are seen as elements of the overarching politics of urban development. Transport

emissions are attributed a clear role in relation to long-term development goals, which would be a necessary, although not sufficient, condition for the sought-after paradigm shift.

5.2 *Focusing and framing*

Focusing and framing, examines to what extent traditional frames for urban development are challenged by the need to consider climate change. Interestingly, the overall goal or frame for urban development and the function attributed to urban planning for achieving this goal were similar in the two municipalities. Both the planning documents and the interviews thus clearly demonstrated that the climate change issue has not created a new frame, but that climate change is instead understood through its linkages to a traditionally dominant economic growth frame. Planning is expected to enable local economic development through offering an “attractive city” environment, which, in turn, is expected to attract new, preferably highly educated or highly skilled, people and private companies. The growth frame is illustrated in the two overarching visions, *Quality of life Karlstad 100000* (Karlstad, 2012a) and Sundsvall’s *Capital of Norrland*ⁱ (Sundsvall 2012b). In practice, town planning in Karlstad is geared towards achieving 100000 inhabitants, which is expressed as a long-term goal for planning in the municipal comprehensive plan (Karlstad, 2012a). The future image of Sundsvall as a capital is also linked to urban development, illustrated by the following passage in the key strategy for urban development:

”Contemporary economics contends that strong modern economies are clearly linked to cities and an urban way of life. [...] A large population and population density in the city core enables a wider supply [of services], which enhances attractiveness and draws people, capital and competence to the city. Improved opportunities for exchanges are not only

stimulating for the city's inhabitants, but also create a dynamic, in itself serving as a seedbed for development and growth" (Sundsvall 2007, p.8).

Consequently, contemporary planning in Sundsvall and Karlstad is geared towards establishing attractive environments for private companies and, as the comprehensive plan in Karlstad notes, well-educated people. This is seen as key when "the knowledge-based industry" (Karlstad, 2012a, p.14) seeks to establish new branches and companies. In light of this, the so-called urban qualities of Karlstad need to be improved. This is expected to be achieved by increasing density and erecting more city-like and waterfront residential developments (Karlstad, 2012a, p.14). These are examples of how climate is linked to the growth frame by an 'attractive city' storyline that is not crowded by cars, but with improved public transport occupying a prominent place. Moreover, the intention is for new housing to be located adjacent to main routes for public transport, with adequate interconnecting hubs (Karlstad, 2012a, p.17). This also adds to the centrality in achieving the overall vision of public transport, which must be faster in order to level out the shorter time when travelling by car. Here, planning is also given a prominent role (Karlstad, 2012a, p.17). Travelling by foot and bicycle is also seen as an element of the attractive city, to be induced by increasing its priority at the expense of car traffic (Karlstad, 2012a, p.18). Similar ideals are expressed in Sundsvall's City vision:

"The main principle in the block city is mixed modes of transport, promoting a more intense urban way of life, but where vehicles move according to the conditions of pedestrians and bicyclists. Mixed modes of transportation presume and promote a calm traffic pace" (Sundsvall, 2007, p.27)

Climate change issues are thus integrated into an established and dominant growth frame, which shapes the understanding of what the municipalities are and what they might become and, consequently, what climate change means in relation to this. Interestingly, this particular physical design of the cities and their transport systems is not only seen as a prerequisite for more climate-friendly transport systems, but is also claimed to be a fundamental precondition for urban economic development and competitiveness.

5.3 Generation of mobilising force

Generation of mobilising force concerns how actions and concrete decision making are mobilised to enable implementation. Linking climate change to the dominant frame could become a potential strength, if the attractiveness issues fuel the sought-after paradigm shift.

The empirical material suggests that the two municipalities studied are indeed striving to develop the link between urban development, an attractive city and reduced emissions from car traffic by pointing to synergies. In practice, planning for more climate-compatible transportation and urban structure becomes a subset in the larger process of coordinating the internal governance of the municipal departments within the overall economic growth frame. The force is mobilised around the frame in different formal settings within the two municipalities. In Karlstad, organisational changes have been made in order to reduce the number of committees and departments, clarify areas of responsibility and increase the ability to govern and coordinate the work of municipal departments (Karlstad, 2013a). Notably, the Town Planning department in Karlstad is responsible for public transportation, which can be seen as a way of facilitating inter-linkage. Both municipalities have the ambition to establish an overarching internal administrative model applicable to all municipal departments and activities.

In addition to the administrative changes, both municipalities are working intensively to streamline the number of policies and political goals and ambitions. This administrative model is not only expected to consider the overall goal, but is also connected to budget and monitoring. This was confirmed by planners and managers in both municipalities, with a planner in Karlstad recalling that previously, there used to be “a mishmash of all kinds of things, in all directions” and, consequently, goals were often conflicting. Thus comprehensive plans and transportation and climate change strategies are being increasingly streamlined in order to fit better with the comprehensive strategic internal policy applicable to all municipal activities.

However, despite these changes, there is a risk of synergies only materialising in the rhetoric. During our interviews, a number of managers and planners from both municipalities demonstrated high awareness of potentially conflicting goals in planning and elaborated on the potential conflicts between the attractive, growing city and the climate-smart city. They also referred to conflicts of interest and different interpretations among local politicians in Sundsvall of what the “attractive city implies” (particularly with regard to the role and space occupied by car traffic). For instance, one planner asked, “Does the attractive city mean more or less parking spaces?”, in a discussion on changing the rules for parking in Sundsvall city centre. In that particular case, the local shop owners feared that removing free parking on weekends would lead to more people choosing to shop in out-of-town malls.

This illustrates that even when the overall goal of a municipality is clear and climate change is explicitly linked to it, practical concretizations are necessary. In these, it is uncertain what the local ambitions represent and what force is actually mobilised in concrete planning when the actual weighing of goals is being performed. This means that detailed development planners often face difficulty in interpreting what weight should be attached to these different

intermediary considerations when finally deciding on the specific detailed development plan, which is legally binding. The planners interviewed claimed that they lack guidance from the comprehensive plans and other local strategic planning documents and policies, as reflected by a planner in Sundsvall:

”I personally think that [balancing objectives] should not take place in the [detailed planning] projects. They should take place earlier, but because this is not done, they end up here”.

The task of operationalising these considerations in detailed development plans (DDP) is monumental. Balancing different intermediate goals with respect to the overall goal is primarily achieved through negotiations between the municipal planners, representatives from other public agencies, private companies and the citizens affected. Moreover, these negotiations occur stepwise, creating a need to ensure that what has been decided (balancing) in previous steps is carried through to coming steps (such as from comprehensive plan to DDP, from DDP draft to DDP second draft, from agreed DDP to development agreements and building permits). This means that there is great uncertainty concerning what climate change will mean in the legally binding setting. From the perspective of mobilising force to enable reorientation of planning, the concentration of balancing to detailed development planning in conjunction with the perceived lack of guidance from “higher [administrative] levels” suggests weak force. The role of DDP in this local setting, often initiated by a developer, risks making it difficult to implement changes in the transportation system that support the attractive city storyline. The planners from both municipalities are under the impression that force has to be mobilised (against developers and other interests) all over again in every detailed development project.

Besides the larger organisational changes to combat weak policy linkages, politicians and planners have developed several formal and informal tools and procedures to support transition processes. First, use of measures such as the travel-time ratios between car traffic and bicycle and public transportation are expected to be used as a basis for handling conflicts between objectives when planning new housing areas (Karlstad, 2012a). Travel-time ratios are intended to assess how new housing areas will affect the overall travel pattern. Each detailed development plan has to contain an estimate of the degree of goal fulfilment with regard to the travel time goals. Moreover, the climate strategy of Sundsvall underscores the importance of investigating early in the planning process how changes in land use will affect emissions of greenhouse gases. Here, strategic environmental assessments are prescribed if the municipality intends to establish out-of-town shopping centres (Sundsvall, 2004, p.79). Second, the planners have established new procedures in order to enhance coordination across sectors and to improve balancing of conflicting goals. In Sundsvall, planners have established informal so-called "sketch workshops", at which planners and officers from different municipal departments gather to jointly sketch different alternative solutions of a particularly "tricky plan or area". In another example of mobilising force in Sundsvall, at a higher geographical level, detailed development plans that are seen as particularly problematic are singled out and discussed informally at meetings with various sector representatives.

Besides the use of new tools and procedures to mobilise force, planners and managers frequently pointed to the significance of political support. In Karlstad, the interviewees overwhelmingly agreed that there is political support for a reorientation of planning among all political parties and, consequently, that there is a low risk that political support will weaken significantly. This creates force in that managers dare to recruit new competencies and start working with new issues, both of which are seen as relatively long-term and costly

investments. However, the interviewees in Sundsvall perceived a lack of political support for reorientation of traffic planning in their negotiations with private companies and the public. A recent example of the relatively weak political support is that a draft strategy for traffic has not yet been approved by the municipal council, according to interviewees because there was a shift in the political majority at the 2010 election. Without sufficient political support, interviewees claim that goals about modal shift become “toothless”. Developing the strategies required considerable time and resources and, indeed, enhanced the common picture of the issues at hand, which will now be more difficult to implement in practical action. Lack of political support is particularly evident as a lack of strong policies and of clear guidance in “tricky” situations. One planner in Sundsvall underscored how she had to defend goals about less car traffic against local shop owners, housing companies and citizens, who still favour planning for car traffic. Without political support, she claims,

”you will have to take the goals every time, and then it will be uncertain
and [turn out] different in different places”.

Despite formal and informal tools that support a transition, there were several examples of how urban planning practices diverge from the goals of more climate-friendly transportation in both municipalities. Even while Sundsvall municipality is improving public transportation and planning for pedestrians and bicyclists, a new out-of-town shopping mall has been established and a few new residential areas in locations badly suited for public transport have been planned. This will clearly result in increasing car traffic volumes and CO₂ emissions. These projects were all planned despite requirements on using tools for assessing the consequences for CO₂ emissions prior to deciding on the suitability of the projects. No strategic environmental assessment of the CO₂ emissions was carried out during planning of

the out-of-town shopping mall in Sundsvall, even though the planner was clearly aware of the requirement to do so:

”Well, yes, I know. I brought this up with the politicians [...] That’s nothing to make a big fuss about, but rather just contended that there was no big interest to push for this [the strategic environmental assessment]. If you start questioning Birsta [the out-of-town shopping mall], which is not hard, then the whole idea falls. I never thought they would do it, but I felt it necessary to at least raise the issue.”

Thus the planning tools at hand were not used when their results were expected to challenge strategic political intentions to achieve economic growth. Reduced car traffic and increasing transportation by foot and bicycle clearly weighed light in comparison with the perceived benefits from commerce, according to several planners in Sundsvall:

”I do not think it matters what kind of strategies or guidelines we produce/adopt, when what really drives [planning] are things that develop, that create job opportunities that are key. If that wish clashes with any kind of principle, the principle will have to give way”.

The resulting planning practice in Karlstad is similar to that in Sundsvall. In recent years, urban development has been shifting from the city centre towards areas close to Lake Vänern, fuelled by increasing demand for waterfront residences. An entirely new waterfront borough is planned far away from the city centre, illustrating how the comprehensive plan as a whole diverges from the travel-time ratios (Karlstad, 2012c, p.18). It is the emphasis on ”attractive” housing that opens the way for settlements in peripheral locations, with inferior opportunities for public transportation, pedestrians and cycling. However, the consequences of these

decisions are managed in a slightly different way than in Sundsvall. Tools such as travel-time ratios are used to support a reflective planning process in which the municipality tries to estimate and mitigate the negative consequences of increasing car traffic to the highest possible extent. For instance, when travel-time ratios were used in Karlstad, the prospects of increasing car traffic led to planning of faster public transportation between the peripheral residential areas and the city centre. Even though this is an example of the frequent chasm between the aims of creating sustainable transport systems voiced in long-term plans and the actual decisions made in relation to concrete planning projects, it illustrates that planning may have a reflexive role in deciding possible pathways to the future. This is illustrated by the following statement by a planner in Karlstad, who believed that the clear goals concerning sustainable transportation could still serve as support because:

“[...] any departure from the goals must be motivated and, perhaps, be the object of public scrutiny. The process then becomes very open. In this way the goals have a value, even if they are not fulfilled. *It becomes a clear choice of path*”.

6. Discussion

Spatial planning was analysed here in relation to a strong versus weak perspective in the research literature on its ability to support local climate change transition processes towards sustainable transportation. Case studies of planning in two Swedish municipalities with comparatively high climate change ambitions linked to what Bulkeley and Betsill characterise as strategic urbanism (Bulkeley & Betsill, 2013) were used to identify the opportunities for climate change transition processes in a Western decentralised planning context that give local authorities a high degree of autonomy. This autonomy, in Sweden referred to as a “local

planning monopoly”, provides local authorities with strong political power to initiate and implement local transition.

Following Healey (2007), the cases demonstrated that climate change is clearly filtered into local strategy-making processes, acknowledging the need for paradigm-shifts. When it comes to focusing and framing, thus positioning climate change in relation to wider societal goals and ambitions, the climate change issue did not result in any new climate change frame being established. Rather climate change was integrated into, and was subordinate to a dominant economic growth frame. In goals and ambitions, climate was linked to the growth frame by an “attractive city” storyline, where better conditions for public transport, walking and cycling are cited as one important precondition for attractive cities with potential for growth. In the cases attractiveness provided a hook on which to hang climate action (Bai, 2007; Bulkeley, 2010), inducing climate action in a similar, although less comprehensive way, as the integrated sustainability strategies did in previous Canadian studies (Burch et al., 2014; Shaw et al., 2014).

However, by linking climate change to attractiveness, politicians and planners involved in local transportation planning also contributed to limiting their agency in respect to climate transition (similar as Bulkeley & Betsill, 2003), and thus their ability to generate mobilising force (Healey, 2007), by allowing companies to have a pivotal position in the planning process. Planners contended that businesses had the greatest influence over the practical orientation of planning when it comes to concrete development plans, and not the municipality or its climate goals. There were also several examples of how urban planning practices diverged from the goals of more climate-friendly transportation in both municipalities, due to planning of growth-motivated residential and commercial developments that contributed to urban sprawl and increased car-dependency. To conclude, when it comes

to prioritisation, which in Sweden mostly takes place in the detailed development planning (Nilsson, 2007; Hrelja, 2011; Storbjörk & Hjerpe, 2014) climate change is often directly put against economic growth rather than the two being harmonised by the storyline of attractiveness. This reduced the weight given to climate-friendly transportation significantly and, accordingly, the climate action. This is well in line with findings that if climate change is formulated in terms of reduced or no growth then its political feasibility diminishes (Zahran et al., 2008; Bulkeley, 2010).

The analysis showed that planning in the two municipalities studied were indeed strategic in relation to the attractive city storyline as well as transformative as local development planning were used to mobilise force around another societally highlighted goal in the wider policy context: economic growth. It was not, however, transformative with respect of climate change. This means that business-as-usual planning practices (Hrelja 2011; Isaksson & Storbjörk 2012, Bulkeley 2010) that reproduce mobility patterns that detract from local climate goals prevail in DDP even in these comparatively ambitious municipalities with relatively strong local implementation structures. Also with strategic urbanism, it has been asserted that many of the previous challenges of conflicting priorities and difficulties in implementation remain (Bulkeley & Betsill, 2013). The findings thus suggest that even in these relatively climate-ambitious municipalities operating in a national context characterized as positively inclined towards sustainability and environmental issues in general, and with large agency for the municipalities to enable climate change transition, enabling climate change transition in transportation planning is complex. A more nuanced understanding of the transition-processes involved when moving from filtering, focusing and framing to concrete mobilization of change is important.

The image of spatial planning as strong presented in previous studies, is not in line with the daily reality of transportation planning on the ground, necessitating a critical discussion on the promises and pitfalls of spatial planning to support transition, as well as reflections on where this takes us in terms of e.g. strengthening either national regulations of spatial planning or local spatial planning practices in themselves (Kasa et al. 2012). While stricter national rules and regulations have, in the case of preventing urban sprawl, been shown to influence local decision-making and planning positively (Næss et al., 2011), such measures are highly controversial in the decentralized Swedish planning system. Also they do not follow current European reform trends that instead question the role of regulatory planning and press for more flexible local decision-making (Owens & Cowell, 2011). Consequently, and a bit paradoxically, we suggest that more effort needs to be spent on generating mobilising force within the current local implementation structures.

We can see that there are already a number of tools in place in our case-study municipalities that hold the potential to strengthen the integration of climate change considerations and generating mobilizing force in planning. One example is travel-time ratios that affect travel patterns, and a requirement for strategic environmental assessments early in planning processes. New working procedures were also developed, such as “sketch workshops”, i.e. early informal meetings between planners from several departments on particularly “tricky” concrete development plans. Also municipalities are working to streamline their internal goals and ambitions to make visible and reduce internal goal-conflicts. If used effectively in local policy and planning, such tools and coordinative attempts could strengthen the standing of climate goals. This could also enhance the ability to withstand the strong perceived influence of private companies on planning.

The prospects to achieve climate transition based on these planning tools and coordinative attempts are, however, determined by the extent to which they are being used, or not used, to mobilise force in planning practice. Here the case-studies show that, in practice, tools like travel-time ratios and strategic environmental assessments were applied very selectively, that is they were not applied when their use would have questioned the validity of the growth frame in planning for developments such as out-of-town retail establishments that increase transport demand and CO₂ emissions. The observations on the selective use of tools and working procedures allows a critical note in discussing the prospects and pitfalls of using planning as an arena for climate transition (see also Storbjörk & Uggla 2014).

A key problem shown in the case-studies is that too much of operationalizing what a key storyline like the attractive city entails in terms of sustainable transportation in practical decision-making is handed over to the negotiating practices of the detailed development plans (DDP). It is in the DDP, a phase where the influence of private development actors is strong, that such clarifications, interpretations and negotiations are made. An important blind-spot in this respect is that detailed development planning takes place on a case-by-case basis where the broader local governance implications of singular development plans, and to what extent they support or undermine key strategic goals and the different components of the wider attractive city storyline, is rarely discussed or made visible (Hrelja, 2011). In worst cases, a case-by-case based planning will implicitly favour car-dependency without having to argue for it in relation to climate change considerations. Since the municipal comprehensive plan is not legally binding, this becomes particularly problematic if alternative decisions and trade-offs between goals are made invisible in detailed planning. A precondition for change is that tools and working procedures is part of strategic decision-making and planning processes, i.e. that it clearly considers some outcomes and actions as more important than others (Albrechts, 2006). Working procedures and planning tools may have a reflexive potential in opening up

alternative pathways to the future, if trade-offs between for example a car-based and a public transport-based city development in detailed planning, are made visible in relation to long-term vision about “attractive cities”. However, this presupposes a strategic work within the framework of institutionalised local ways of viewing the relationship between climate change and economic growth, by working deliberately and consciously on understandings of how climate issues are linked to long-term urban development strategies about growth and attractiveness. While the planning observed can be regarded as weak, it would most likely have had considerably less ability to support climate change transitions had it not been part of the attractive city storyline.

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ⁱ Norrland is the Swedish term for the northernmost of the three Swedish regions: Götaland, Svealand and Norrland.