



Aalborg Universitet

AALBORG UNIVERSITY  
DENMARK

## Light Rails to Sustainable Mobility?

Olesen, Mette

*Publication date:*  
2012

*Document Version*  
Early version, also known as pre-print

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*

Olesen, M. (2012). *Light Rails to Sustainable Mobility?*. Paper presented at AESOP 26th Annual conference, Ankara , Turkey. <http://www.arber.com.tr/aesop2012.org/abstractsebook/Abstract/Abstract751.pdf>

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- ? Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- ? You may not further distribute the material or use it for any profit-making activity or commercial gain
- ? You may freely distribute the URL identifying the publication in the public portal ?

### Take down policy

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.

# Understanding Global and Local Concepts of Light Rail through Narratives

Mette Nielsen<sup>1</sup>

## Abstract

Taking its point of departure in the mobilities paradigm, this paper applies a theoretical framework of narratives and storytelling to analyse and describe the rationales behind implementation of light rail in the case of Bergen light rail in Norway. Through the analysis it is demonstrated that there is not one overall rationale for implementing light rail, many arguments are evident in various contexts. Furthermore, findings in this paper show that planners, policy makers and other stakeholders shape stories for or against the implementation of light rail through the use of narratives that are linked to global discourses of light rail. By looking into the narratives and stories around light rail, generated in the policy and planning phase, the process of creating visionary concepts for light rails can be unfolded. The central claim of this paper is, that the formation of a clear concept for a light rail project is crucial when forming the basis for the decisions for the political process and the decisions made later in the implementation and operation stages of the light rail project. Furthermore, a clear concept is necessary to identify the criteria for a successful system and evaluate the outcome and more importantly to institutionalise this concept among all actors involved in the process to ensure that there is agreement around the concept. Through findings from the Bergen Light rail case, the concepts and arguments for implementing light rail in this local setting will be presented to exemplify how concepts for the light rail can be shaped in the policy and planning phase and show how the lack of a clear concept can extend and complicate decision making processes. The paper moreover provides a more general perspective on the effectiveness of creating clear concepts in order to steer new infrastructure projects and urban interventions through the political process and secure the outcome of these projects are recognisable in proportion to the visionary concept.

## 1. Introduction

### 1.1 Reintroducing the Tram

After Second World War old tram systems were abandoned in many European cities. After decades where the tram, in many cities, was the preferred mean of urban transportation and had structured urban development, the introduction of the car caused a radical innovation in the transportation sector and made other modes of travel inflexible and fragmented compared to the seamlessness that the car could offer. (Urry, 2007, pp. 119). The attributes of the car made it impossible for the tram system to compete as the preferred mode of transportation for the everyday journeys. As the system of auto mobility became well established it overtook the role as the central mode for urban transportation. (Beckmann, 2000). In 1932 General Motors bought up the US tramways in order to close them down (Urry, 2007) and in Bergen, Norway the last tram was dumped in the fjord in 1965

---

<sup>1</sup> Aalborg University, Denmark, metten@plan.aau.dk.

(Vollset, 2007) both symbolic acts to cement the beginning of a new area of auto mobility. In the recent years there has been a change in discourse around urban mobility. Coming from decades with policies that supported automobile oriented cities, many policymakers today seems to recognise that this propensity needs to change in order to deal with increasing travel demands, struggle for space and liveability in the cities and the growing CO<sub>2</sub> emissions from the transport sector while at the same time enhancing mobility (European Commission, 2007). One solution, caused by this new direction, is a reintroduction of the tram which has had a technological upgrade and a new name - light rail. In many European cities there has been increased political interest in the possibility to implement light rail. Europe is the densest light rail continent with 170 systems in operation and nearly 100 more in construction or planning (UITP, n.d. ). Furthermore, light rail in many cities, has proven to be a successful tool to change the urban mobility system away from the car-oriented approach, which in many cities have resulted in modal shifts, passenger increase and decrease in car-use in the cities (The National Audit Office, 2004; Bottoms, 2003).

This new mode of urban transportation has some features that, in a technical sense, make it different from both metros and busses; lower construction cost than metro, in many cases the system runs in prioritised lanes, it is integrated in street level and intervenes with the urban environment. It has a higher comfort level and regularity than traditional bus systems. (Hanssen et al, 2005). There are several technical documents and evaluations of light rail as a technology, however there is need for a more holistic understanding for the genesis of light rail system; why are light rail suddenly relevant, and what has caused this change and which rationales are behind the decisions to implement such systems? The goal with this approach is to understand how light rail projects are framed in the policy and planning process in different local contexts and which influence this framing has for the political and public process that the project passes afterwards and for the later stages of the project. A narrative and spatial understanding (Jensen, 2007) of light rail will be provided through this paper to show how arguments for and against light rail are shaped and fitted to the local urban context with a reference to other local spatial dimensions (other urban development projects or historical attributes or symbols of the city), hereby creating a local 'concept' behind the implementation of light rail.

## **1.2 General discourses, Global and Local Concepts**

As experience, culture and growth gain importance, cities worldwide are engaged in constructing images and representations according to these trends (Jensen, 2007). According to this trend it is evident that many European cities have a wish to integrate light rail as a part of their urban branding and urban development strategy, and as a tool to improve the city's positions in the global competition for growth and liveability. A literature review of research around light rail supplemented with a review of relevant material for newly implemented light rail lines, shows that one strong discourse for implementing light rail is the wish to create an identity for the city - creating an image of a modern and visionary place that should facilitate future growth. (Hanssen, et al. 2005; Hedström, 2004). An indication that show that the rationale for implementing light rail is beyond the purpose of getting people from A to B, hence facilitating discussions involving more than transportation purposes. Likewise, at the international scene, the discussion around implementation of light rail proves to be based in a variety of discourses that both supports and opposes the need of implementing light rail. These discourses can be characterised as general that might be applicable in many local contexts, and hereby they are not connected to any particular local agenda or spatial referent. Tait and Jensen (2007) describes that global ideas, models and



concepts for urban development (e.g. waterfront developments or business Improvement districts) are shaped by professions such as planning, urban design or urban management, and these global ideas, models or concepts travel to around the globe and is translated into local contexts. In this transformation process the model or the 'concept', as I will term it in this paper, are given local meanings and are often attached to spatial localities. However, if the translation process is not linked to one overall discourse and hereby framing a local 'concept' that makes the project relevant in the local setting, then the light rail project could face difficulties in communicating the various actors in the process. Furthermore the project could face difficulties in addressing opposing views because of the lack of a clear vision and hereby clear concept. The Bergen case presented in this paper will exemplify this.

Light rail is obtaining an important role in the normative discussions around the future urban mobility system globally, and especially in many middle-sized European cities. A literature review of official European and international documents around light rail made it evident that there exist some general discourses around light rail on the global level. Furthermore the literature review identifies the discussion around light rail to be derived from the general discourse of the liveable city - with an emphasis on the historic dimension in the story of the liveable city; how do we move on from the past? What is the wish for the future? Some discourses are continuously repeated in the official reports and forms general discourses for and against light rail. Proponents and opponents derive narratives from these discourses in the local translation process of creating stories for and against the implementation of a light rail project and hereby shaping a local 'concept' for the project. The key challenge is to link the general discourse with a local challenge or situation at hand.

The general discourses are summarized in table 1.

Discourse	Narratives
<b><i>The liveable city</i></b>	<ul style="list-style-type: none"> <li>- modernity</li> <li>- quality of life</li> <li>- identity and image</li> <li>- attraction - the creative class</li> <li>- health</li> <li>- Culture and experience (new culture for urban mobility) - the creative class (Florida)</li> <li>- behavioural change</li> <li>- regeneration of urban areas</li> <li>- urban transformation</li> <li>- city competition</li> </ul>
<b><i>Struggle for space in the cities</i></b>	<ul style="list-style-type: none"> <li>- Public transport can structure future urban development and reduce the need for mobilised individual transport in the cities.</li> <li>- restricting car-use in the cities</li> </ul>
<b><i>Backbone of the public transport network</i></b>	<ul style="list-style-type: none"> <li>- efficient transport system</li> <li>- multimodality</li> <li>- quality in public transport</li> <li>- attractiveness</li> <li>- show investment in public transport</li> </ul>
<b><i>Rail factor</i></b>	<ul style="list-style-type: none"> <li>- citizens preferences for rail born transport</li> <li>- the indirect effects of rail (economic development in corridor, symbolic value)</li> <li>- More than a transport system (consumption of transport forging personal identity)</li> </ul>
<b><i>Economical feasibility</i></b>	<ul style="list-style-type: none"> <li>- Cheaper than metro.</li> <li>- Attractive public transport for smaller cities</li> <li>- cities as engines for economic development</li> </ul>

<b>Growth</b>	<ul style="list-style-type: none"> <li>- Urban development potential</li> <li>- Economic vitality</li> <li>- settlement</li> <li>-Culture</li> </ul>
---------------	--

Discourse	Narratives
<b>Economical feasibility</b>	<ul style="list-style-type: none"> <li>- not cost effective</li> <li>-Time consumption as the economical measure</li> </ul>
<b>Accessibility</b>	- restricting car use, causing congestion - not solving congestion
<b>Capacity</b>	- Capacity problems should be the argument for upgrading the public transport network

Table 1. General discourses around light rail (based on literature review and case studies).

Table 1 outlines the dominant general discourses for and against light rail which has been identified through the literature review. Figure 1 is an illustration of how these general discourse forms global concepts and models that are translated by planners, politicians and other stakeholders from the global to the local level and framed to the local context, where the arguments/discourses passes a filter before the official concept for the project is established.

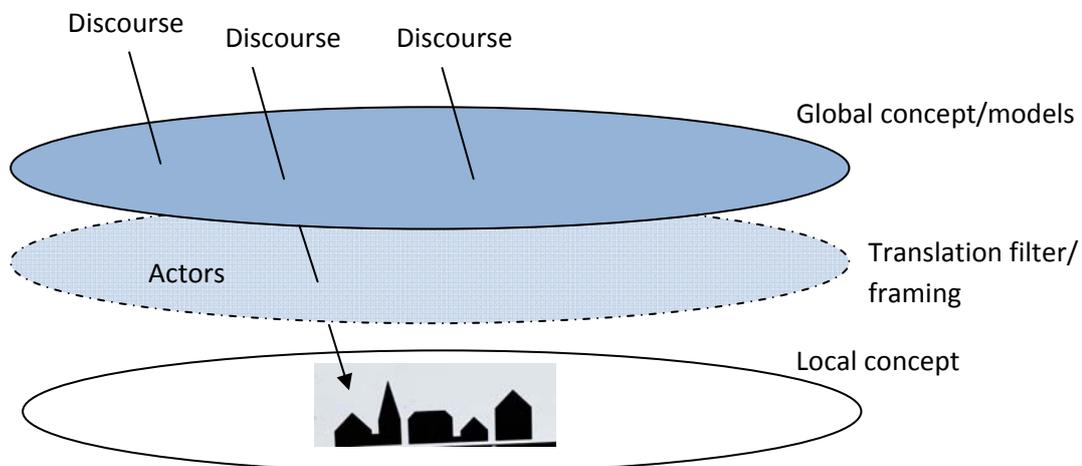


Figure 1 Translation from general discourse on global concept level to local concept with spatial reference (own figure inspired by work of (Tait & Jensen, 2007))

The means by which ideas, concepts and models travel requires an understanding of the context in which they are produced and in which they travel and are adopted. (Tait & Jensen, 2007, pp. 109). The translation process activates numerous actors that serve an important role in framing the local concept through their actions and their use of narratives to support this framing. The aim with this paper is thus to identify the importance of framing the local 'concept' for light rail projects, and to



provide a case example of how this framing has happened. The framing will be unfolded through the use of a narrative - spatial framework (Jensen, 2007).

### 1.3 Stories and narratives of Light Rail

Understanding the role that stories and narratives play in planning has a great importance when unfolding the arguments shaped in the policy and planning phase for light rail systems (and the genesis that comes before this phase) (Flyvbjerg, 1991). The stories told can be deconstructed and provide a critical view of the normative arguments in use in the stories. There is a presence of plot and character in stories that is valuable to understand the stories being told in policy and planning - what is the story about, and what is the plot about and which chain of events structures the plot? Stories can also function as a catalyst for change and hereby shape new imaginations of alternatives (Sandercock, 2003). Often stories serves as inspiration when they are re-told, and good storytelling involves persuasive powers that can mobilise emotions and cause change, which is also called 'narrative rationality' (Throgmorton, 1996, pp. 48).

Using a theoretical framework of narratives to unfold the rationality behind light rail systems is valuable because the stories told in the different light rail cities seems to vary, and there are indications of differing rationality behind the decision to implement light rail systems in the different contexts. It is important to understand this difference in rationality because light rails, as a new urban mobility mode, has to find its place physically socially, economically and discursively within a landscape in which there are already physical structures, social practices and economic entities that overcome distance and structure mobility in sedimented or locked in forms. (Urry, 2007, pp. 52). There is a relation between the story and place in all light rail cities, and therefore emphasis in the analysis in this paper should be on understanding these place-based narratives to unfold the local concepts (Jensen, 2007). Any planning story has a spatial referent which is also the case for light rail systems. Hence the central claim of this paper is, that the rationality behind light rail and how the concept of this urban intervention is framed can be understood better when analysed through a spatially sensitive framework. Jensen (2007) provides an analytical frame to understand the representational logic of urban interventions. He argues that in order to understand the representational logics both a narrative dimension and a space dimension needs to be applied. The analytical frame is illustrated in table 1.

<b>Narrative dimension</b>	<i>Information</i>
	<i>Temporal order/structure</i>
	<i>Causality</i>
	<i>Plot</i>
	<i>Discourse institutionalization</i>
<b>Sense of place dimension</b>	<i>Relations to other places</i>
	<i>References to physical attributes</i>

Table 1. Analytical framework for the representational logic of urban interventions (Jensen, 2007).

The analytical frame is a checklist that is taken into account in the analysis.

## 2. Analysis

### 2.1 Case-study Methodology

A case-study methodology was applied to explore the use of narratives and story-telling to frame the local concept of the light rail project in Bergen, Norway. This qualitative approach provides a valuable basis for understanding and explaining light rail as a phenomenon and the rationalities behind implementation of light rail. Explorative interviews with key stakeholders from the policy and planning phase were conducted. Furthermore, document studies supplemented the unfolding of the use of narratives in the policy and planning phase. The case and stakeholder interviews are presented in table 2.

Case	Case study timing	Case Characteristics	Stakeholder interviews
Bergen, Norway (250.000 inhabitants)	May, 2011	- First light rail line finished in 2010 - strong political focus - public debates	Municipal planner Politician - left wing Public transport authority Local Researcher Technical engineer Head of the Local Business life

Table 2 Case description

The case presented in this article was selected to show a critical case (Flyvbjerg, 1991) where the actors in policy and planning process has struggled to form a clear concept for the light rail project, hence causing the process of Bergen light rail to be the heavily discussed subject in Bergen for 15 years and also delaying the decisions significantly. By applying the analytical frame I will now look into the narratives in use in the cases of Bergen light rail and identify the local concepts for this project and the narratives in use to frame this concept.

### 2.2 'The Silent Monster' - A case of political struggle for Bergen light rail

In June 2010 the Queen of Norway opened the first light rail line in Bergen. It was a symbolic day since opponents of the light rail had worked long and hard to reach to this point and the policy and planning process of Bybanen was the most heavily discussed case in the media for a period of fifteen years (Vollset, 2007). Since the last tram was abolished and dumped in the fjord in Bergen in 1965, the establishment of new urban rail born transportation has been discussed politically and publicly, and many different technical solutions have been presented (Nielsen, 2011). The pictures illustrated in figure 2 captures some of the stories that have been told about Bybanen in Bergen in this heavily discussed project.

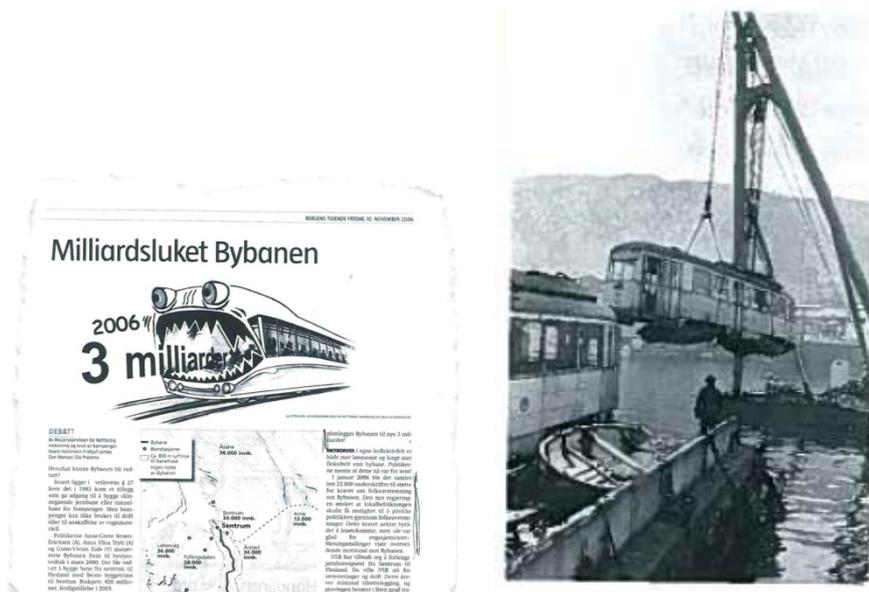


Figure 2: Left: Article presented in the local newspaper Bergens Tidende by opponents, the headline was that the light rail would literally swallow billions of Norwegian kroner (Hartmann, et al., 2006). Right: picture from year 1965 when the last tram was symbolically dumped in Bergen Fjord to symbolise the beginning of a new era. (Rasmussen, 2011).

Like many other cities Bergen closed the tramlines in the 1960ies due to the introduction of the automobile. In 1946 each Norwegian on average travelled 4 kilometres pr. day. In 1960 this had increased to 18 km pr. day. Concurrent to this development the tram and the local rails were abolished. Furthermore, investments in road infrastructure made the car even more indispensable. The car changed its status of 'welfare-good' to a 'necessity' as Bergen city sprawled. Though, increasing auto mobility started to cause problems in the city; congested roads lack of accessibility and time delays (Vollset, 2007). The struggle for space in Bergen raised the discussion of 'the liveable city': how should the city develop in the future? (Potter, 2011; Eide, 2011). The normative discussions around this question drew clear front lines for stakeholders for or against a new agenda for urban development to start a value based discussion where all arguments were valuable if it supported the future development the different stakeholders supported. Therefore a reference to the political context is important when evaluating how the local concept for Bergen light rail was framed, or more correctly to say; the many ways in which the concept was framed by different actors through the policy and planning process, and the genesis of this.

### 2.2.1. Actors

The narratives used in the process around Bybanen in Bergen can roughly be divided into proponents and opponent of the light rail. However, the picture is not as clear as such. Three main categories could be identified consisting of narratives derived from the rationality of different professions/groupings; engineers, architects and environmentalists which illustrated how different professions are framing the project in various ways. The rationality of these different professions proved to be very different. The 'groupings' of professions are not divided by clear borders; it is more right to say that the narratives in use in the process generally originate from different rationalities within these professions, and the span of actors using these specific narratives seem to

be more varying (Vollset, 2007; Rasmussen, 2011; Potter, 2011; Eide, 2011). The many varieties of arguments in use reflect a diffuse process where the 'translation' of the global model of light rails was not initiated by one global discourse of light rail. Almost all global discourses (table 1) were activated in the argumentation and this caused confusion around the concept for the local project. It was not one story being told but many opposing stories. In this process the 'narrative rationality' and the ability to mobilise emotions was essential (Sandercock, 2003; Throgmorton, 1996).

The dominant discourse among the stakeholders that held the engineering rationality was the economic discourse; creating a debate of how to value transportation, getting 'the most transportation for the available money', specially the road directorate, which is a national organisation, shared this belief and hence became a dominant actor that managed to mobilise public and political support for against the light rail project. The main reason for their opposition was that a stated proposal for financing of the light rail was made by the proponents of the light rail which involved financial means collected through road toll would be transferred to a public transport project (Eide, 2011; Potter, 2011). Based on traffic model calculations the road directorate argued that the light rail project couldn't cope with the increasing congestion; new roads had to be build to meet the future demands and likewise socioeconomic calculations showed that the light rail project was far to expensive. More busses could be inducted when new roads were build, this would by all means be the most cost effective solution based on their rationality (Vollset, 2007).

It is obvious that the road directorate had a very central role in the debate around Bergen Light rail. Their rationality was rooted in the understanding of traffic as cost benefit calculation based on traffic modelling with time savings as the important factor to evaluate on socioeconomic benefit of the infrastructure project; and in this perspective the light rail project didn't make much sense.

Another group of stakeholders can be framed as the environmentalists, and in the Bergen case the environmental arguments proved to be important. The awareness of the environment started growing in Bergen in the eighties 'Gatebruksplanen' from 1989 was the fist realisation of that planning for cars had happened at the expense of pedestrians, cyclists and public transport users (Eide, 2011; Vollset, 2007). The environmental movement in Bergen 'Naturvernforbundets' initiated the fist hearing of a plan to construct a light rail called 'Bybanehøringen' from 1989. However, the increasing environmental problems also became much more visible for the people living in Bergen in the beginning of the 2000s. Due to the location of Bergen between seven fells and close to the seaside, the smog from the increasing car traffic in some years lied as duvet and created a visible picture of the downside of the growing individual car traffic (Figure 3) (Rasmussen, 2011). This picture became an important argument for the need to shift planning towards more sustainable modes, including the possibility to construct a light rail.



Figure 3: Bergen city covered in smog from the traffic in the first years of 2000 (Rasmussen, 2011).

The main arguments in use within this environmentalist grouping in favour of the light rail project, was that the light rail should be provide an efficient public transport network that could serve as an attractive alternative to the car, hence indicating that this was solely a matter of getting people from A to B as fast as possible. Therefore it was important that the alignment of the tracks was made in direct lines to ensure a high speed for commuters of the line. This argumentation didn't fit with the rationality shared by many planners that the light rail should be an urban project. In their story the most important goal of the light rail was to ensure that the system was integrated in the urban environment and enabled frequent stops at the relevant urban destination. However, if the light rail was to have many stops along the route this would reduce the speed and the environmentalists saw this as a big disadvantage if the light rail should be a realistic alternative to the car (Vollset, 2007).

Various 'experts' was brought in from other countries to tell about the successful outcomes that the light rail had facilitated in these countries, and hereby provided spatial referents. Hereby the global discourses around light rail had an important role in the local arena in Bergen and initiated the translation of these to the local context (Vollset, 2007; Potter, 2011). The argument of perceiving the project as more than a transport project became an important argument in the process, especially since this argument was a valuable counter reasoning towards the road directorate which used the traffic models, and the engineering determinism that follows with using these models, to evaluate on the direct economic benefits of the project and hence overlooking the indirect benefits that the light rail project could have in order of structuring urban development and increasing market prices in the corridor (Rasmussen, 2011). It therefore became a principal question of how infrastructure benefits and disadvantage could be valued.

### **2.2.2 The Mothers of Bergen Light rail - and the making of Bergen Light Rail as a Urban Project.**

The important actors who made the choices that finally resulted in the decision to build Bergen light rail were women, and in the stories told about Bergen light rail in the media these woman are called



'The mothers of Bergen light rail' (Hustvedt, 2010). Gunn-Vivian Eide (from the green left wing party SV) was the first politician to suggest that the financing for the light rail project, which had been subject for great discussions, could come from the toll-money in Bergen, where car-drivers paid tolls to finance new infrastructure projects, by this Gunn-Vivian seriously challenges the vision for the mobility future in Bergen since the toll money was originally indented for road infrastructure. This was not considered an unpopular move amongst the road directorate since their rationality around traffic planning and prioritisations was somewhat different (Eide, 2011). In 1996 the politician Elisabeth Tryti followed up on this initiative by preparing for a transport financing agreement called 'Bergensprogrammet' where the toll revenue, amongst other priorities, should finance the light rail project in Bergen. But because of strong political opposition towards the use of toll money paid by car-driver to finance public transport project, a compromise was made the 'Bergensprogrammet' should be a package that both covered money for public transport, cyclists and new road infrastructure. The party SV, which was considered proponents of the light rail and initiated the idea with toll money to finance the project, didn't support the transport program since they thought that they would the compromise the original intent with implementing of light rail; to reduce car traffic. Therefore they didn't vote for the proposal which indicated that they could no longer support the local concept of the light rail if it ended up being a compromise that didn't change the traffic prioritisations and mobility hierarchy towards greener modes. The Bergensprogram was implemented without the support of the SV party (Vollset, 2007).

The final concept for the light rail in Bergen was framed when responsibilities for public transport in Bergen city was handed over from 'Fylket' (the regional authorities) to the municipality in Bergen in year 2001 where the first light rail office was establish as a section under the Planning Department (Potter, 2011). The shift was caused by a political awareness amongst the municipal politicians that the public transport system in Bergen Centrum had been neglected for ages on behalf of providing a network in the less populated area that serviced every nook in the region due to the regional politicians focus on nursing for the districts where they were elected (Eide, 2011). This shift finally manifested the light rail project in Bergen as an 'urban project' where the final concept create the possibility for an urban lifestyle where you didn't have to own a car or at least could prevent the purchase of the second car in the household (Potter, 2011). However, by looking into the official planning documents this concept doesn't come across as very clear. However the project originally wasn't rooted in this department and the financing of the project ended up being a compromise between two visionary concepts; 'the efficient road scenario' and the 'life in the collective city' (Potter, 2011). When you visit Bergen today you will see this compromise; many places you see densification in the light rail corridor and construction of new quarters along some stops, but you will also experience a city where the car still has a high prioritisation. Table 3 summarizes the discursive and spatial aspects of the Bergen case.



Table 3. The case of Bergen Norway

		<b>Proponents</b>	<b>Opponents</b>
<b>Narrative dimension</b>	<i>Information</i>	Factual but not well structured argumentation. Proponent's views don't from a clear concept.	Clear and consistent argumentation based in the economic and capacity discourse - choose the most cost-effective solution.
	<i>Temporal order/structure</i>	Before the city was a congested and polluted place, with Bybanen it will be a liveable place.	Congestion can be solved with road infrastructure; busses can handle the need for capacity in the public transport sector.
	<i>Causality</i>	Urban competitiveness is dependent on a new urban transport system that will restructure the city	Facilitating traffic is a requisite for growth, we cannot reduce the flow of traffic - time losses are expensive for the society.
	<i>Plot</i>	Strong plot: the struggle between the car and the public transport - what do we want for the future. The result is the compromise made in 'Bergensprogrammet' half/half solution.	Money earned from the motorists shouldn't pay for public transport.
	<i>Discourse institutionalization</i>	Heavily embedded in many of the general discourses around light rail: 'liveable cities discourse', 'struggle for space in the cities'.	Value for money is to facilitate the flow and ensure capacity. Heavily institutionalised discourse. The road directorate evaluates due to a model based method where timesaving's and accessibility is the important factor.
<b>Sense of place dimension</b>	<i>Relations to other places</i>	Strong relation to 'best practice example in other light rail cities' - the city competition of creating the liveable city. The most important argument	Not articulated - focus on the local challenges and how to solve these.
	<i>References to physical attributes</i>	Not many references to local physical attributes - the light rail project is not specifically linked to this more to sprawl and congestion issues in general.	No link to physical attributes.
<b>The final concept</b>	<i>Main argument</i>	Creating the collective city - with the choice to live in proximity to public transport (deselecting purchasing car no. two)	
	<i>Discourse</i>	<i>Weak institutionalization of concept (not all are clear on arguments):</i> 'Backbone of the public transport network' - trying to change the modal split by introducing an alternative lifestyle choice 'the collective city'	

### 3. Conclusions

The Bergen case exemplifies the importance of forming a clear local concept for any project that requires significant interventions in the urban and cultural landscape. The formation of a clear concept for a light rail project is crucial for the project to pass smoothly through the political process and even more importantly, to ensure that the aims and goals with the project are clear for all stakeholders from the beginning of the project. In Bergen the concept for the light rail ended up as a compromise that neither fully supported the proponents or opponents for the light rail project, and thus it can be difficult to identify the original intend and purpose with the light rail project as it is formulated today, not herby saying that the project haven't been successful in many aspects, especially in changing cultural perception public transport after the system has now been running for more than a year.

The lack of a clear concept and purpose for the project can furthermore have some implications for the later stages of the project. Choosing the final alignment of the system can be very different depending on the purpose of the system; was the intend to transport people as fast as possible from A to B, or was the light rail a tool to structure future urban development, or was it a part of an urban branding strategy? With the absence of a clear concept that defines the aim with the project it is challenging to define success criteria for the system and guide the project through the implementation and operation process. It is therefore argued that focus for future light rail project and other urban intervention projects should be placed on creating a clear stories and concepts for such a project, hereby making it relevant in a local context. This could be by applying the project to an overall strategy for the future urban development which politically gives the project an important role to play in future development strategies. This will ensure that the concept is institutionalised and passes the political process with fewer obstacles.

Moreover, the Bergen case exemplifies a trend of city competition and creating the story of 'the liveable city' which is evident in many middle sized European cities. In this intense city competition within a globalised world, global concepts such as light rail or harbour front developments is constantly 'travelling' and entering new geographical arenas where local actors tries to grasp and narrate these ideas and use them in a local context to keep the cites 'fit' for competition in order to facilitate economic growth. But in this strong competition of implementing new global ideas many cities often end up looking the same, especially those cities that have not managed to integrate the global concept in the local context and activate the potentials that such concepts might have. Light rail projects are translated very differently across European cities; In France light rail projects are often perceived as urban projects where a significant part of the budget for such systems are covering urban regeneration processes and urban design features along the route (Johansson, 2011). This generates new mobile spaces in the city and in many cases causes a reordering of the mobility hierarchy in the French cities because implementation of light rail is often followed by restrictions for car-traffic. In some German cities e.g. Freiburg the light rail system plays an important role in facilitating an efficient urban mobility system that is integrated in the urban environment and linked to the regional and national networks (Schade, 2011).

In this paper I have shown how the stories told light rail systems are considerably different in various national context etc. due to the differences in how the global concepts has been activated in a local context and how these new concepts find their place physically, discursively and culturally. Furthermore there is a very clear connection between the concept and the effects of the systems. The technology light rail doesn't cause change in itself, it is the framing of the concept in the local context that defines the role the system should play in the existing *mobility system* (Urry, 2007) and the potential effects that the system could cause. Discussions around public transport is a highly valued based discussion, even though many technical arguments are often activated, therefore planning professionals have to acknowledge the importance of the translation process from global to local concept in order to make the project relevant in a new context.

#### 4. References

- Antoft, R., & Salomonsen, H. H. (2007). Det kvalitative casestudium - introduktion til en forskningsstrategi. In *Håndværk og horisonter - Tradition og nytænkning i kvalitativ metode* (pp. 29-57). Syddansk universitetsforlag.
- Beckmann, J. (2000). Automobilisering som mobilitetsparadigme - refleksioner over biler, bilister og deres spatiotemporaliteter. *DANSK SOCIOLOGI*, 8-22.
- Bottoms, G. D. (2003). Continuing Development in Light Rail Transit in Western Europe- United Kingdom, France, Spain, Portugal and Italy. *Federal Transit Administration. 9th National Light Rail Transit Conference November 16-18*.
- Buck Consultants. (2000). LiRa Pilot 3: Light Rail, Economic Impact and Real Estate Development.
- Cervero, R. (2007). Light Rail Transit and Urban Development. *Journal of the American Planning Association*, 133-147.
- Eide, G. V. (2011, May 17). Politician at SV Hordaland . (M. Nielsen, Interviewer)
- European Commission. (2007). *Green paper on urban mobility*. Retrieved February 22, 2012, from [http://ec.europa.eu/transport/urban/urban\\_mobility/green\\_paper/doc/2007\\_09\\_25\\_gp\\_urban\\_mobility\\_memo\\_en.pdf](http://ec.europa.eu/transport/urban/urban_mobility/green_paper/doc/2007_09_25_gp_urban_mobility_memo_en.pdf)
- Ferguson, H. (2009). Driven to Care: The Car, Automobility and Social Work. *Mobilities Vol. 4, No. 2*, 275-293.
- Flyvbjerg, B. (1991). *Rationalitet og magt - bind 1 Det konketes videnskab*. København: Akademisk forlag.
- Hanssen, J., Bekken, J., Fearnley, N., & Steen, A. (2005). *Lettbaner - Europeiske erfaringer*. Oslo: Transport Økonomisk Institut.
- Hartmann, K., Lampe, F., Monsen, O., & Prestmo, O. (2006). Milliardsluket Bybanen. *Bergens Tidende. 10/10*.



Hass-Klau, C., Crampton, G., & Benjari, R. (2004). *Economic impact of light rail: the results of 15 urban areas in France, Germany, Uk and North America*. Environmental & Transport Planning.

Hedström, R. (2004). *Attraktiv och effektiv spårvognstrafik*. Linköping: Väg- och transportforskningsinstitutet.

Hustvedt, E. (2010, June 24). *Ti kroner i bot for bybanen*. Retrieved May 7, 2012, from sv.no: <http://sv.no/SV-der-du-bor/Hordaland/Bergen/Nyheter-BSV/Ti-kroner-i-bot-for-bybanen>

Jensen, O. B. (2007). Culture stories: understanding cultural urban branding. *Planning Theory* vol. 6 (3) , 211-236.

Johansson, T. (2011). Nya spårvägar i mellanstora städer. *Modern Stadstrafik* nr 4 .

Launsø, L., & Rieper, O. (2000). *Forskning om og med mennesker - Forskningstyper og forskningsmetoder i samfundsforskningen*. Nyt Nordisk Forlag Arnold Busk A/S 4.udgave, 1. oplag.

Nielsen, M. (2011). Bybanen i Bergen skaber forandring. *Trafik og Veje*. December , 62-63.

Næss, P., & Jensen, O. B. (2000). *Boliglokalisering og transport i Frederikshavn*. Aalborg: Skriftserie nr. 256. Aalborg University.

Potter, T. (2011, May 18). Chief Engineer at Bybanen A/S. (M. Nielsen, Interviewer)

Rasmussen, H. (2011, May 16). Urban Planner Bergen Municipality. (M. Nielsen, Interviewer)

Sandercock, L. (2003). *Mongrel Cities - in the 21st century*. New York: Continuum.

Schade, U. (2011, November). Transportplanner im ZRF regional transport authority. (M. Nielsen, Interviewer)

Scott, W. R. (2008). *Institutions and organisations - Ideas and interests*. Sage Publications Ltd.

Tait, M., & Jensen, O. B. (2007). Travelling Ideas, Power, and Place: The Cases of Urban Villages and Business Improvement Districts. *International Planning Studies Vol 12, No 2* , 107-127.

The National Audit Office. (2004). Improving public transport in England through light rail. *Report by the comptroller and auditor general hc 518 session 2003-2004: 23 April 2004* .

Throgmorton, J. (1996). *Planning as Persuasive Storytelling*. Chicago: University of Chicago Press.

UITP. (n.d. ). *International Association of Public Transport*. Retrieved February 22, 2012, from Light rail: <http://www.uitp.org/Public-Transport/light-rail/index.cfm>

Urry, J. (2007). *Mobilities* . Cambridge: Polity Press.

Vollset, M. (2007). *På sporet av Bybanen*. Bergen: Bodoni forlag.