

FINAL REPORT



**This is how we get
The Livable City**



THE LIVABLE CITY

The Livable City project is a joint project between Swedish national agencies and three medium-sized municipalities spanning a period of six years between 2005 and 2010. The aim of the project has been to develop processes focusing on the interplay between the planning of urban transport systems and built up environment. The focus has been on how different interests, requirements and needs are managed in a coordinated manner to achieve sustainable urban development. The project has resulted in some innovative solutions and the planning processes have been evaluated by a research team, which has given a basis for new planning tools and new roles for project leaders. Particular interest has been devoted to developing opportunities for coordinating work between the national, regional and local level.

The work itself has been undertaken as part of around fifteen sub-projects in three municipalities: Jönköping, Norrköping and Uppsala. During the course of the project, a great deal of hands-on experience of the cooperative process has been documented.

The project has been led by a project owner group consisting of the Directors General of Trafikverket (Swedish Transport Administration) (consisting of Vägverket (Swedish Road Administration) and Banverket (Swedish Rail Administration)) and Boverket (Swedish National Board of Housing, Building and Planning), the relevant municipal councils of Uppsala, Norrköping and Jönköping, as well as the President of the Swedish Association of Local Authorities and Regions.

The project has been kept on course and held together by a working group consisting of

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Lennart Andersson - chair (as from 2009 (inclusive)), Anki Ingelström, Bert Svensson, Elina Brodén and Mathias Wärnhjelm
- Swedish National Board of Housing, Building and Planning: Kerstin Hugne
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- Jönköping: Josephine Nellerup, Henrik Zetterholm

The authors of the original concept document are Carl-Johan Engström and Anki Ingelström.

On behalf of the working group, November 2010



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Publications no:
2011:006

ISBN:
978-91-7467-103-2

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Publisher:
Swedish Transport Administration

Illustrations:
Caroline Andersson Linholt

Cover Photo:
Smålandsbilder.se, Dan Pettersson

Production:
Grafisk form, Swedish Transport
Administration

Print:
Swedish Transport Administration

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This is how we get The Livable City

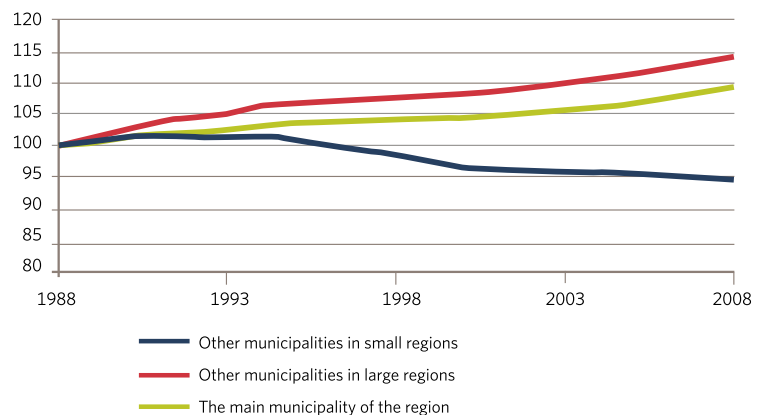
“ New solutions for urban development and transport provide us with routes that are both safer and shorter. A compact functional city releases fewer greenhouse gas emissions. Densified building development uses up less land and utilises investments that have already been made. (...)

Completely new ideals with regard to urban development require new regulatory frameworks and cooperation between the state and municipalities.”

This is a quotation from the debate page of one of the largest newspaper in Sweden (DN-debatt) of 16 August 2007. The posting was sent by the Directors General of Vägverket, Banverket and Boverket and the municipal councils of Jönköping, Norrköping and Uppsala. At that time they had been working for three years on The Livable City project, trying to find better ways of coordinating transport investment and urban development. Now, a further three years down the road, the project is drawing to a close, and its shared experiences have been compiled in this publication. A great deal of practical experience of better ways of working together is based on a shared conviction that urban development has a

key role to play in the pursuit of sustainable development.

Statistics from the last forty years indicate that the population of the metropolitan regions and large cities is constantly on the increase. More and more people are tending to move there to benefit from the range of services, culture, entertainment, work opportunities and education possibilities they offer. In this transformation, which is as radical in its extent as the transition to the industrial society in former times, we need to ensure that its every aspect furthers sustainability economically, socially and in environmental terms.



Population growth 1988 – 2008 in various types of municipalities.

New conditions governing the role of the city



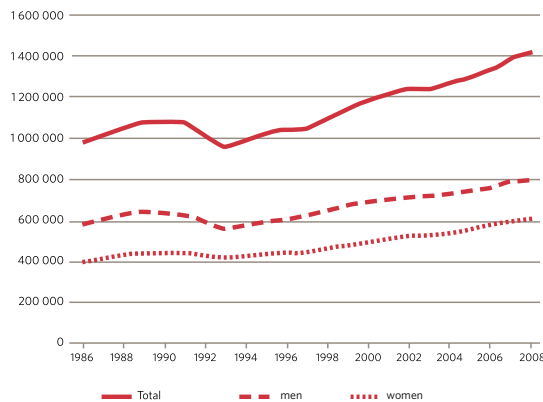
The globalised economy - the reason behind the development of the knowledge society

Globalisation has meant that Sweden cannot retain a standardised and reproducible production model as a means of ensuring a strong future export base. Its product portfolio needs to be constantly renewed, and this compels us to invest more in innovation. The new emerging companies are specialised in nature, and they cooperate with other companies to produce innovative solutions. Sharing the same surroundings as other companies needed for product development will become increasingly important for those that wish to remain at the forefront of development. This tendency is not of a temporary nature, rather it is a consequence of globalisation and the evolution that had its beginnings in the emergence of industrial society.

It is not just knowledge-intensive companies that require

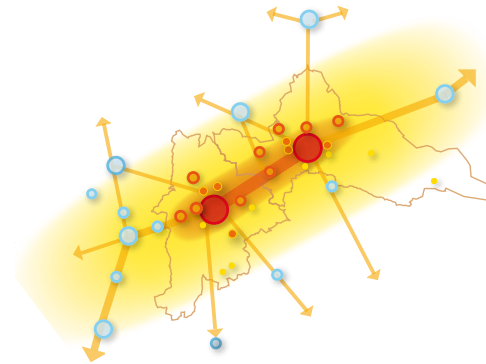
mutual proximity and interaction. A whole range of companies that translate, print, market, clean, irrigate, serve, serve out, repair and service various products follow hard on the heels of the knowledge companies. To this should be added an increasing degree of entertainment-oriented business activity. A pre-condition for the existence of these companies is that they have a sufficiently large “home market”. It is in the metropolitan regions and larger cities that this is to be had.

The most rapid growth in jobs and the economy occurs therefore in cities and urban regions where people have a plethora of jobs to choose from, a wide range of educational opportunities, social contacts, services and culture, and where companies have the greatest chance of finding new employees with the right qualifications. Development of transport systems also has an impact



Graph showing the number of people commuting (in the sense of crossing a municipality boundary to get to work) between 1986 and 2008.

on urban growth. The quicker and, relatively speaking, cheaper transport links mean that we can live in one place, work in another, and still spend our free time elsewhere. This is particularly important in Sweden where households with two bread-winners are not keen to move. The advantage to be gained by one partner getting a new job does not outweigh the disadvantages for the other, or for the children. In such a case, living centrally makes commuting easier. The family can continue living there when a family member changes job or starts a course in continuing education. We travel ever further distances and tend increasingly to commute beyond the boundaries of the municipality we live in.



Networked cities. From the Common Comprehensive plan for Linköping and Norrköping, 2010.

This increase in commuting over ever greater distances results in regional enlargement. In a sparsely populated country like Sweden, it creates labour markets that are more versatile and robust. Commuting is mainly between the city cores, those parts that are most easily reached. As a result, we get multi-core development involving cities that are networked together. In the more sparsely populated areas of the country there is no basis for generating such networks. Instead, in such areas we are seeing greater interplay between the city and the surrounding countryside. Regional enlargement and concentration around city inner areas go hand in hand.

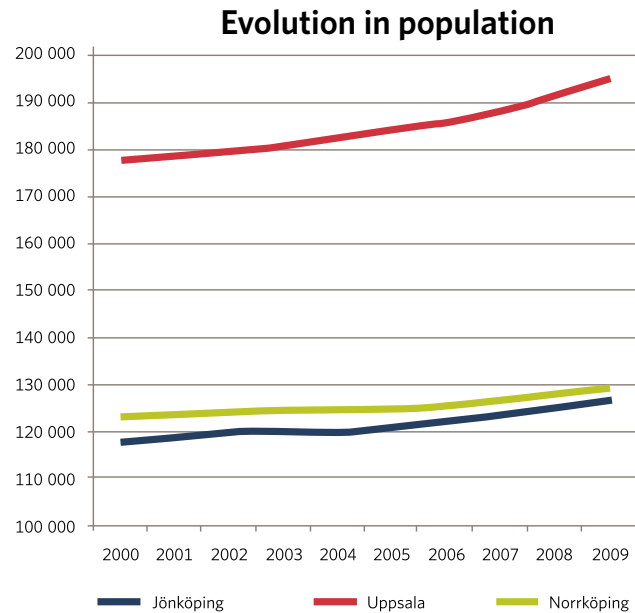
Summary

Increasing competition for the workforce and job opportunities follows hard on the heels of increased mobility. Cities and urban regions have become the winners. These are sufficiently large and varied, possessing the specialisation and greater potential for marketing their products. This development is not however uniform. Urban transformation is characterised by a response to the pressure exerted on the city centres. But there is also a tendency towards a more sparsely populated urban landscape with external shopping malls along major road arteries and isolated residential estates in the countryside near to the city. Thirdly, there are many areas, often in the outer reaches of the cities, which are still untouched by urban renewal and transformation.

Cities are the base for growing industries and the centre of regional development

The three cities in the project - Norrköping, Jönköping and Uppsala - have all seen an increase in population, particularly over the last years. Plans are also in place to meet expected continuation in population growth. The three cities have very consciously striven to make themselves more attractive. They have for instance invested in centrally located concert halls and other public buildings of a cultural nature.

Jönköping made an early start on transforming its city core areas as some important retailers were finding it difficult to compete with retailers from outside the city. "På Stan" was formed as one of the country's first dedicated organisations for city centre issues. An urban development vision was produced in 2000 as a framework for revitalising the city core. This vision is still in the process of being realised. Jönköping went on to develop an extended urban development vision in 2008, involving densification of the city around Munksjö Lake. The vision also includes a new station for the Götalandsbanan, a future high-speed rail link between Stockholm and Gothenburg.



The evolution in the population of Jönköping, Uppsala and Norrköping between 2000 and 2009.



Realisation of the Urban Development Vision, Jönköping.



New life is breathed into the empty former textile industry premises, Norrköping.

In the case of Norrköping, the decline of the textile industry saw the city facing the need to find a new identity. The arrival of the university provided the impulse needed for the successful transformation of the city.

More recently too, the city has been hit by various industries closing down, and its response has been initiatives in a number of areas, including culture and education. Now Norrköping and Linköping are working together on enlarging and strengthening the region, as the two hubs of what is known as the fourth metropolitan region in Sweden. They are working towards involvement in the future high-speed rail link and developing the tramway system.

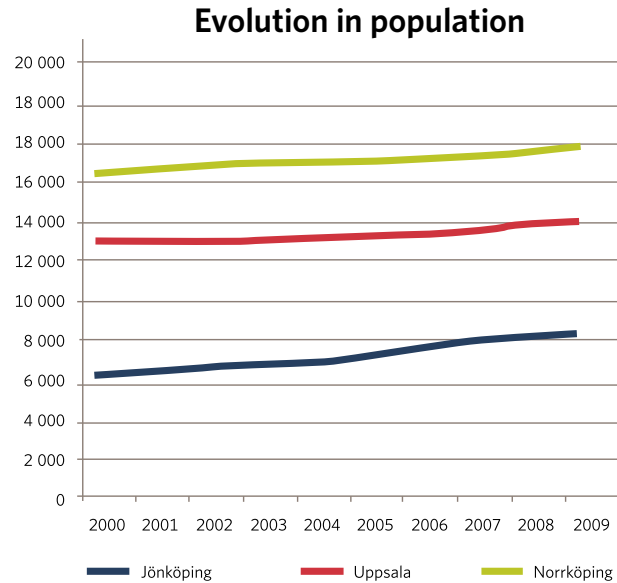
In Uppsala the work on urban development had its starting point in two main issues – firstly the need for a new travel centre, and, secondly, unease at the prospect of what would happen when the city's most important industrial company, Pharmacia, merged with an American pharmaceuticals giant. In the year 2000 an overall vision for the city's development was adopted which emphasised the importance of central areas becoming more attractive, as well as stressing densification and more efficient public transport. The new travel centre is now well on the way to being completed, and the rapid transformation of the city has now become reality, firmly based on a vision and a comprehensive plan.



An artist's impression of how the Uppsala travel centre should look after rebuilding is complete

In all three cities, the population is on the increase, just as it is in other major cities, and to a still greater degree in their inner city areas. The selling prices of apartments clearly reinforce this – the central locations are the more attractive propositions.

To summarise this development, our findings suggest that in the cities the number of knowledge-based companies is on the increase, at the same time as jobs in industry are disappearing. Innovative industrial and services production is a growth area. It is important to be seen, to meet and be together. And not just at your own local place of work. City public spaces are becoming an increasingly important part of the working environment. A good urban environment is becoming something of value in itself, attracting a qualified labour force and people who want to live there



The evolution in population in the city centres of Jönköping, Uppsala and Norrköping for the period from 2000 to 2009.

Summary

One conclusion of the Livable City project is that development is also resulting in the transformation of city centres, from areas with traditional retail store fronts to areas with restaurants, services and events. This development is also leading to the addition of more housing in accessible inner city locations. This does not happen of its own accord, however, but requires considerable planning and collaboration. City centre associations (usually between merchants and property owners) have become a driving force in partnership with the municipality.

Cities and daily life

More and more people are moving to the cities. The city is not just an economic engine – it is the centre of a multifaceted social life. The elderly, women and young people who live alone make wide use of the urban environment. As well as shopping, entertainment and culture form the basis of urban life. The increase in international travel and immigration has an impact on demand, the range of things on offer, and social life in general. A new urban culture is emerging. The city's public spaces

are becoming locations for business meetings as well as places where people just happen to meet. This is particularly the case with the young generation – they meet increasingly rarely at home, rather in the market square or street cafes and parks. “Parkour” (or “l’art du déplacement” (the art of movement)) is an expression referring to a practice where all a city’s residential surfaces, passages, alleys and boundary demarcations are utilised in acrobatic movement patterns – a way of “mentally taking in the city”.

The elderly are also acquiring new lifestyles. Older People with Active Lifestyles (OPALs) make full use of what the city has to offer in terms of culture and entertainment. They tend to spend a lot more time together in the living rooms of the city and not so much in their own. Cafe life is on the increase and their open-air terraces are even frequented in late autumn and early spring. More and more businesses are focused on personal service and enjoyment. Parks are areas where people meet and engage in leisure activities. Community gardening is a type of recreation that is on the increase in cities.

Social cohesion and participation, equality of opportunity, equal conditions, variety, public health and safety all depend on how the physical environment is designed. The ease of access to various activities will for example determine whether a child can go to school on his/her own, as well as impacting on outdoor play areas and elsewhere where leisure activities take place,

whether women have equal opportunities for commuting to work and whether the elderly can reach various service premises, etc. Safety and security are affected by how the city is used - whether, for instance, it is alive night and day. Public health is affected by air quality and noise levels in the living environment, for instance, as well as by the potential for active leisure time and physical movement during the daily commute.

As city density increases, so does the need to transform the city. Is it really possible to build cities that encourage human interaction and extend a warm welcome to creative environments? This is one of the main questions in The Livable City project. The question has been analysed in some depth by the researcher Jan Gehl. His message is that cities that are in the process of growing are poorly adapted to the people in them. In his view, the physical design of the city must be measured against the individual. If this is not the case, other values risk "taking over", and the people in the city will then have



Urban life is attractive for residents as well as businesses. Illustrator: Arken SE Arkitekter.

to bear the brunt of the negative consequences that result. The design of a city can both open up and close down, integrate or segregate, bring people together or disperse them.

In The Livable City project we have focused on the interplay between urban development and transport, as this has an effect on the potential for the city to be

experienced as a safe and secure place, open and inviting - in other words, socially sustainable. In individual projects within The Livable City project, dealing with new ways of solving problems relating to the design of urban development and transport links, it is however difficult to fully evaluate the social aspects. These are dependent on a general transformation in the urban fabric as a whole.

Summary

One important conclusion is that new creative urban development projects must always involve the social dimension. For example, a street will always have the function of facilitating transportation of some kind. Up until now, this way of looking at it has always dominated, but it also accommodates a social aspect in the form of an approach to traffic safety. If on the other hand the street is viewed as a human residential zone, the perspective changes. Attractiveness, safety and comfort become goals equally worth achieving - and the result is some very different solutions, as we shall see below



A street must also be attractive, safe and pleasant. Illustration from: Arken SE Arkitekter.



The transport sector is a big challenge posed by the environment and climate

The global climate is set to see an increase in average temperatures. This is a threat that must be met. The increasing proportion of gases in the atmosphere that affect the environment requires a major rethink on the part of humanity in every field. Improved energy economy, the phasing-out of means of transport powered by fossil fuels and changes in human behaviour are all needed. Continuing urban development plays a key role in the transformation, on the one hand because cities are responsible for a large proportion of the impact, and on the other because it is precisely cities that have great potential to reduce greenhouse gas emissions and at the same time contribute to a high quality of life and good economic conditions – to bring about the livable city.

Cities in particular have promising potential to reduce emissions further. In The Livable City project, two issues in particular were up for discussion:

1. Regional enlargement and commuting result in an increase in travel.

2. Transport flows in city inner areas are increasing. The challenge is to create regional public transport solutions that work well at the same time as exploiting the opportunities for reducing car traffic in the cities due to the fact that many people can walk, cycle or use local public transport. Cities that are of greater density or have a greater mix in functional terms and which have attractive integrated transport systems are factors that contribute to future success. (The next section will show how strategies can be developed for this.) But creative solutions are also needed, because in the city the application of safeguarding distances is not a feasible way of dealing with inadmissible levels of noise, nitric oxides, sulphur, particles and other local effects. The solutions are “outside the box”. Open cooperation between those representing different sector responsibilities is needed. This concerns those in charge of road maintenance, vehicle regulations, application of regulations by authorities, as well as property developers etc.

Summary

The experience derived from The Livable City project is that solutions must be based on the overall objectives for sustainable urban development. That is, retain centrally located railway stations as nodes, and prioritise public transport that converges on them. Ensure that any roads that circumvent the city, etc., also serve to relieve city traffic. Cut speeds in and around the city centre, introduce low-emission zones, overhaul parking regulations and tariffs, and design street areas as attractive places to be in.

Integrate sustainable travel projects in a visionary urban development project. Coordinate national and local levels of administration in open planning processes. Persevere! The experience gained from The Livable City indicates that change can be achieved by planning.



Illustration of giant car park versus city. This...



or this. (Source: Dover, Kohl & Partners)

A coordinated policy for urban development



Growing cities are not just important for themselves and for their citizens. They are also of great importance for national growth and global climate policy. They act as motors within their regions and are important constituents of networks with other cities. Cities are therefore affected by just about every policy area, including policies relating to the environment, as well as social, equal opportunities, integration, infrastructure and economic policies, and, last but not least, financial policy. For this reason, therefore, what is required is a holistic approach, as well as coordination of the various

policy areas that also takes into account the impact of specific sector policy on urban development. In other words, an urban policy.

When the urban environment is a matter for local communities as well as a decisive factor in national growth, a joint approach to city infrastructure is needed. When regional development is driven by cities acting in a common network, joint planning of infrastructure is required, both in and between cities, to link their local job markets.

The current situation

Planning of building development and infrastructure

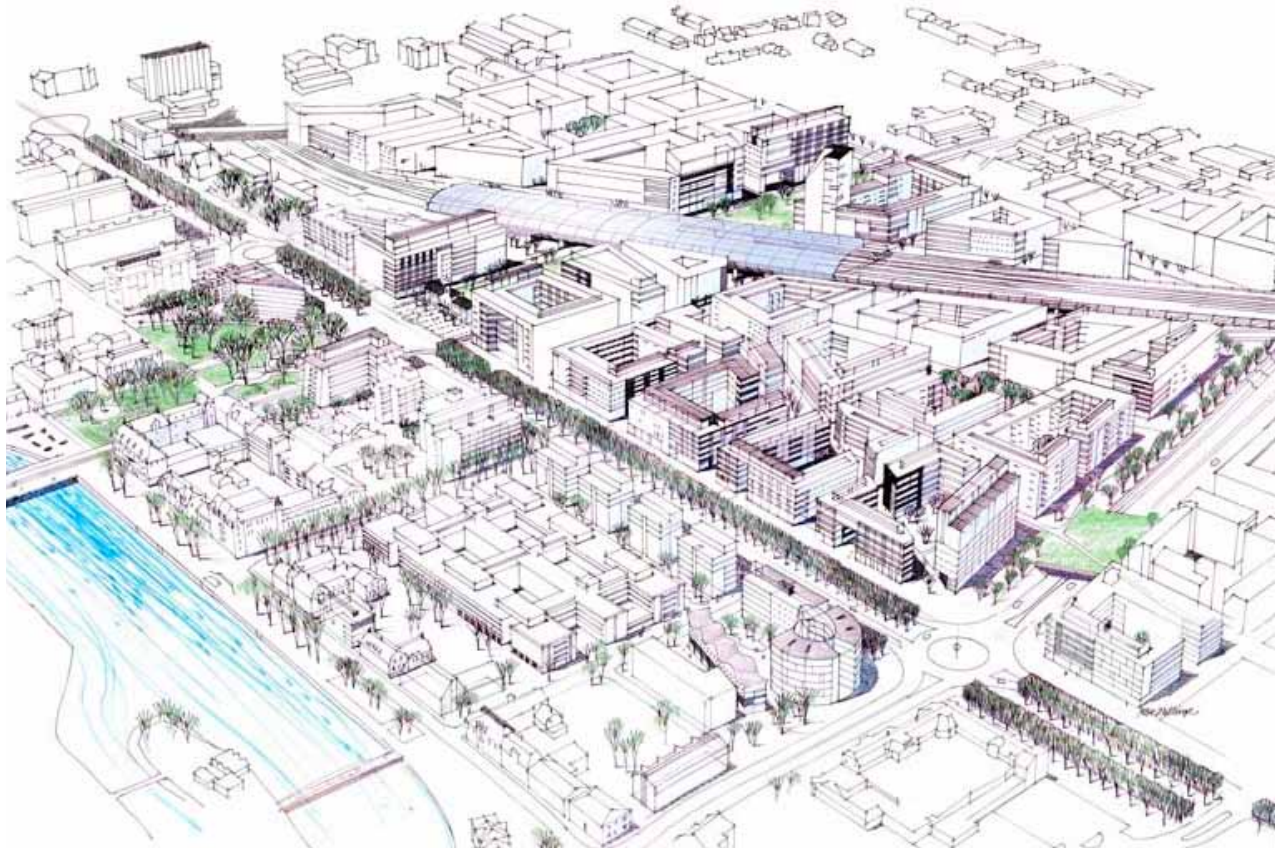
The Livable City project highlighted a deficiency in urban policy, mainly in the planning of building development, but also in infrastructure investment. The various planning systems are governed by different legislation and are controlled by different authorities. This leads to conflicts when planning involving the same geographic area must be based on different legislation or systems. As regards the future Götalandsbanan high-speed rail link (from Stockholm to Gothenburg), it is Trafikverket that is in charge of the planning, and the municipali-

ties have produced the comprehensive plans for their relevant areas. The Götalandsbanan is not part of the national transport plan, and so it is not clear whether or when the state will finance the rail link. The uncertainty of this situation risks laying a “dead hand” across large urban areas. The rail link has however been designated a project that is in the national interest, with the result that Trafikverket has issued a preliminary assessment to the effect that the railway line will be extended in 2040.

Jönköping and Norrköping are both dependent on a definitive answer here if they are to be able to continue with the major urban transformation that is based on the assumption that there will be new railway stations.



From Jönköping's urban development vision. The proposal contains a new railway station location south of Munksjö lake.



Norrköping's new railway station facility. From the Common Comprehensive plan for Linköping and Norrköping, 2010.

” The government has decided on the national plan for developing the transport system over the period 2010-2021, as well as the economic frameworks for the county plans. This decision means that a total of 482 billion SEK are to be invested in infrastructure between 2010 and 2021. No funds have been allocated to high-speed rail links. ”

Source: Swedish Government Offices' website

Public transport

Public transport is a means of achieving overriding social objectives. If it is to be able to do this effectively, it requires investment (on the part of the state and the municipality), management (the public transport authority) and prioritisation within the urban environment (the municipality). Issues relating to transport that is sustainable in the long term and the four-stage principle therefore need to be looked at from an angle other than simply in terms of Trafikverket's responsibility

for the sector. For Trafikverket, it is now a requirement for all projects that the four-stage principle be applied. This entails that a transport problem first be examined with a view to solving it by a change in the use of the transport system or by making the latter more efficient. A condition of this approach is that there be dialogue where all levels work from a clear mandate and are willing to adapt their measures to each other.



1. Measures that impact on transport needs and the means of transport.
2. More effective utilisation of existing infrastructure and vehicles.
3. Limited rebuilding measures.
4. New investments and more major rebuilding measures.

The four-stage principle. Measures from all four stages may be needed to solve a traffic problem. From "Från vägbyggare till samhällsbyggare" (From Road Builder to Community Planning), Vägverket 2005.

The environment

National environmental policy objectives for sixteen areas have so far had little to do with urban development. The objective for climate is distinguished from that of air quality. The environmental quality objective known as "God Bebyggd Miljö" (Good environment in built-up areas) involves an interim objective to the effect that there must be a planning basis that is relevant to the development of the city/town in question. Other interim objectives relate to separately defined issues such as noise and the use of natural gravels. In the government's clarification (government bill

2009/10:155) relating to the long-term generational objective of God Bebyggd Miljö, references to urban development issues have been deleted.

The actual application of environmental quality standards provides an example of where the state makes building cities in a cohesive manner more difficult. All three of our cities have experienced this, in that there have been city areas where building development has not been allowed and detailed plans that have not been approved, etc. This is a problem at municipality level,

as the state is not involved in the discussion as to how trade-off between the environmental objectives might be achieved.

The social situation

Urban policy is a term relevant to the social field. It tends, however, to focus on integration and social issues in large housing estates that grew up in the 1960s and 70s. Various types of support from the state have been developed, then phased out, to be replaced by new initiatives. An important aspect has been creating employment. More recently the aims of state support have been broadened in that the state is also supporting energy and climate initiatives outside big city areas. Over the last two years, the Delegation for Sustainable Cities has provided financial support for measures promoting sustainable urban development which also incorporates policy on business and trade. Here there is an emphasis on initiatives that may form the basis for future exports. The Delegation has also emphasised that initiatives in areas of social deprivation will be continued.

Europe at the forefront

In the EU and Scandinavia, urban policy has been developed on broader and more cross-sector lines. Within the EU there has since 1997 been an action programme for urban development issues. The aim of the programme is to improve coordination and targeting of Community measures in response to urban problems. The

programme relates to specifically defined areas, such as prosperity and employment (the Lisbon process), social inclusion and urban renewal, protecting and improving the environment (ESDP), as well as Community cohesion policy (the regional funds).

In statements made by them over the course of 2010, the European parliament's internal working group for cities and the European Commissioner for Regional Policy emphasise their conviction that cities should have a more prominent role in future cohesion policy: "The role of cities in achieving the aims identified in EU 2020 is beyond doubt." On 24 June 2010 the Council of Ministers debated the Commission's action plan for urban mobility submitted on 30 September 2009. The comments of the Council together with the Commission's document represent powerful support for sustainable urban development.

Finland is the Scandinavian country that has worked longest on an overall national policy for balanced development in its cities. The starting point was the view that, in a sparsely populated country with many small and medium-sized cities, it is important to formulate strategies for development of those cities from a regional and national perspective. There has been an emphasis on the competitive potential of the cities and on functional city regions.

Summary

As we have shown above, there can be sustainable development that is fully in keeping with current development trends. But this will not happen automatically. Creating attractive cities and enhancing cohesion in urban regions by means of good communications require carefully conceived transformation in terms of urban development to prevent increasing traffic demands. Measures are needed that reduced the need for traffic. Investments are also needed in new public transport systems and new infrastructure, and the transition to these new systems and infrastructure needs to be more rapid than it has been over the last thirty years.

The need for a national urban policy

A well-formulated and argued description of the cities' role in community development will lead us to understand why special initiatives may be needed at all levels. How are Swedish cities to be viewed in a national and international context? Are there certain features that are particularly relevant in an EU context? How are we to promote multi-core development? What does a sustainable transport system mean for accessibility and quality of life in the city? The Livable City project has

shown the importance of these questions and has also attempted to provide some answers.

National policy for regional development is based on the regions having to initiate measures to create growth, including Regional Development Programmes. They have to meet objectives set at national level and follow the guidelines drawn up as part of the structural policy of the EU. There is also considerable room for shaping development along the lines of own regional strengths.

Summary

One conclusion is that issues of regional responsibility need to be clarified if Sweden is to be effective in managing infrastructure in and between cities as part of regional development. But a coordinated policy of urban development also needs to run various policy areas in a much clearer fashion than is currently the case, to ensure they do not run counter to one another when applied in urban development. The above example shows that infrastructure, climate/environment and integration policies are important areas requiring coordination

*Realisation of the Urban Development Vision,
Jönköping (Photo: Jenny Lindberg)*



Municipal urban policy

The municipalities have overall responsibility for spatial planning. A dense multi-functional city is a robust structure on which sustainable urban development can be based. The challenge for the municipalities is both to promote the welfare of a growing population and, at the same time, transform and enhance the city landscape, as well as build new infrastructure. The current tax redistribution system makes it harder for municipalities that grow quickly to manage both welfare and urban development. It increases the need for municipalities that find themselves in this situation to develop partnerships with others, and this in turn requires a collective development strategy - urban development instead of urban planning. In other words, supplementing previous projects with new utilisation projects is no longer on the agenda. Instead, they must ensure that the project becomes an integrated part of the urban fabric, thereby enhancing conditions for work, service and quality of life and for finding solutions where a number of parties can contribute financially to realisation of the project.

The social aspects underline the need to develop public spaces so that they gain in attractiveness and create accessibility for the benefit of all – not least so that modern families can solve the conundrum of their impossible time-table with a reduction in the stress and environmental impact associated with it.

Traditionally, the administrative organisation of the municipalities that deals with community development has been split up into different sectors. This must not prevent the work being organised along holistic lines nor that it involve many different types of expertise. All three of the cities in The Livable City project have reached the same conclusions at different stages. In Jönköping the Municipal Board runs the urban development vision. Norrköping has used The Livable City to create an internal organisation for urban development, and Uppsala is preparing an approach that is more process-driven to ensure that the Municipal Board's intentions, as expressed in the Comprehensive plan 2010, have the desired impact.

Summary

One conclusion is that municipal policy for coordinated urban development must enhance the strategic focus of spatial planning. Among other things this will involve a greater proportion of the investment budget and a clear method for communicating the overriding issues relating to development to citizens and businesses. It will also mean that the municipality must establish partnerships with both public and private sector.

The need for a regional urban policy

The fact that regional enlargement and city networks are motors of economic development means that a regional development policy must accommodate urban development issues to a greater extent. Cities that are to

interact in networks – with all the benefits for employment and the labour market described above, as well as the requirements imposed on travel due to the threat to the climate – need a system where the people that live

in them can enjoy seamless travel links. If this is not the case, the cities will not be comfortable places in which to live and work. There needs to be total integration of regional and local transport.

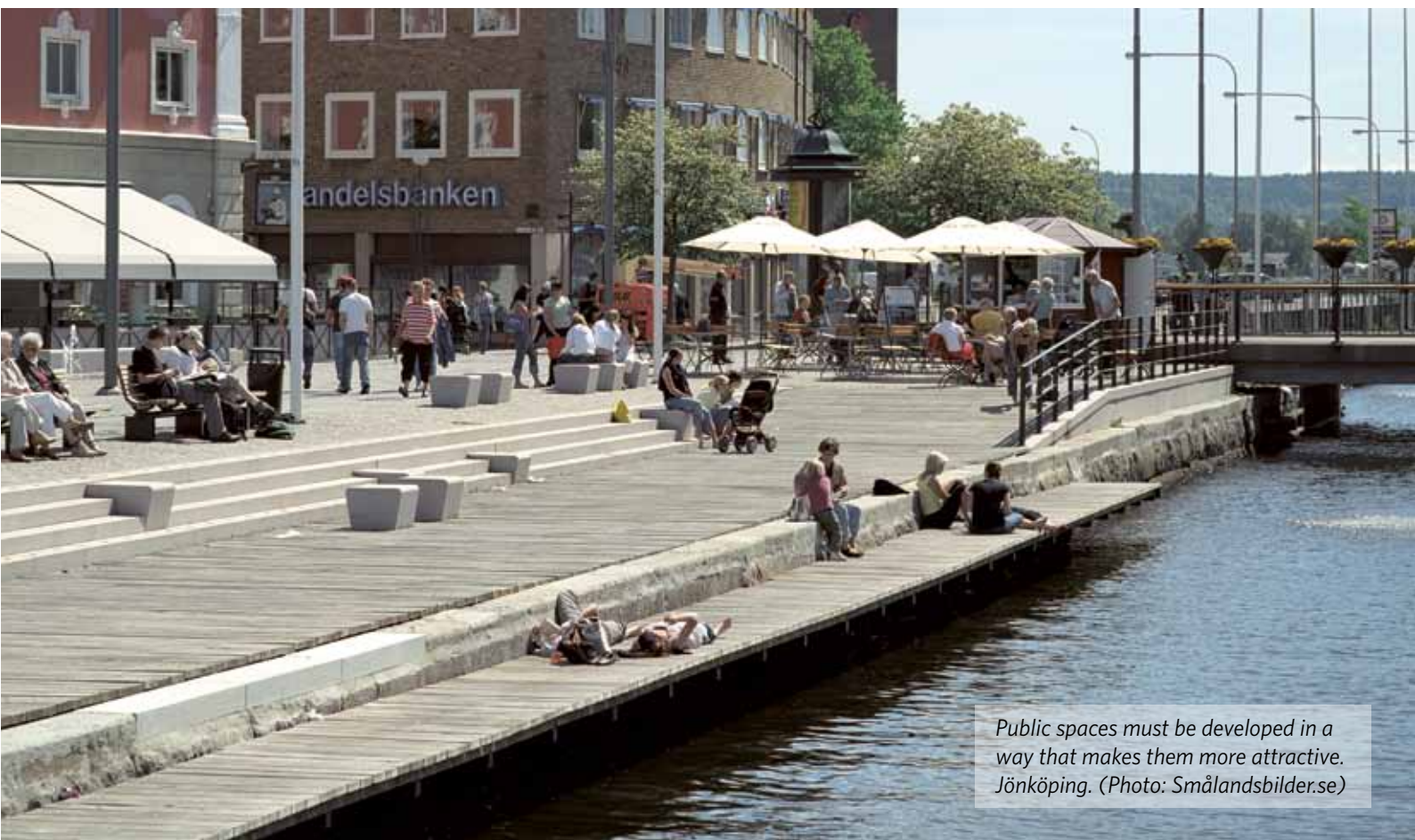
Trafikverket obtains much of its knowledge of the transport situation, its failings and needs in terms of

development, from system analyses undertaken regionally.

The municipalities of Linköping and Norrköping have produced a common overall plan. It combines a systematic regional approach with development of the two cities and the national infrastructure planning process.

Summary

One conclusion is that better coordination is needed between the regional and municipal planning process. The regional perspective must be reflected in the municipalities' strategies, and these in turn form the basis of regional efforts relating to development. The regional planning process must manage urban development in dialogue with the municipalities – this would then be a regional urban policy



Public spaces must be developed in a way that makes them more attractive. Jönköping. (Photo: Smålandsbilder.se)

Coordinated planning of transport links and building development



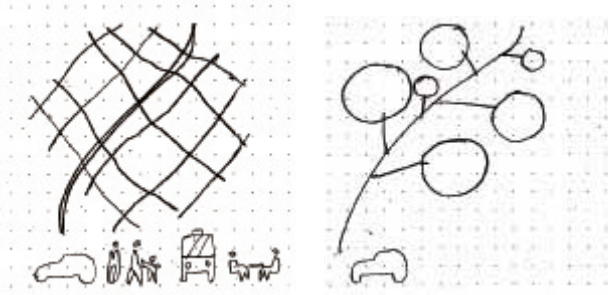
How can the transport system promote community development and an attractive urban environment?

From a historical perspective, city location, structure and development have been governed by access to natural resources and the development of the transport system. Up until the middle of the 19th century, cities grew up where there were good waterways, and the area a city covered was limited simply by how far people could walk. The railway system then became the decisive factor in the further development of the cities.

Industrialisation created a basis for mass production. Marketing of industrial products on a large scale would not have been possible without the transportation of goods by rail.

The impact of the railways on urban development was

twofold. On the one hand, completely new cities emerged near to railway intersections (examples of these in Sweden are Hässleholm, Alvesta and Hallsberg). In cities that were blessed with a railway link, evidence of a functional division started to appear. The area to the rear of the railway station began to be colonised by the new industries, and in their vicinity housing was built for the workers, with working class districts emerging. The station frontage looked out over the city centre – the city park and a big city square. The station building itself became one of the city's landmark buildings. At the same time, in the larger cities the better off began to migrate to the suburbs. Suburban rail links and tram-



For hundreds of years cities were built in blocks with crossing streets, which are now suitable for public transport, pedestrians, cyclists and cars. In the last half of the 20th century, growth of cities was based on separated enclaves only accessible from one route, best suited for car traffic. From Arken SE Arkitekter

ways helped to link them to the city core (such as Saltjöbaden outside Stockholm, or Sunnersta in Uppsala)

The really big transformation in our cities occurred during the 1960s as a result of the emergence of mass car ownership. The conditions governing the internal accessibility of the cities were changed by the car. Proximity based on walking and cycling distance was replaced by proximity in time – by car, longer journeys too could be quickly completed. The functions of the city were distributed over an urban region that was both economically and functionally divided. We acquired a city landscape based on enclaves or zones, each with its own specialised functions: heavy industry and warehouses, light industry and industrial services, business areas, office areas, as well as residential areas with apartment blocks or terraced housing and detached houses. Even the road transport system itself was in need of an ever-increasing amount of space. Car drivers, cyclists and pedestrians became segregated from each other, and car traffic was differentiated in terms of speed and accessibility. The new enclaves of the built-up area were separated from the city core by a network of highways. The inner areas of the cities were also transformed. The roads and streets were widened

and an increasing amount of land was devoted to car parking. Now the conditions governing city traffic have changed again. Manufacturing has moved out of the inner city areas and heavy traffic has been allocated ring roads or bypasses. The city centres have for a large part become the site of the new economy, and proximity in a network has become an important factor in competitive and robust labour markets. The inner areas of the cities can still offer good accessibility and the city's public spaces have become an essential part of the working environment. This in turn further emphasises the need to achieve an attractive urban environment – in spite of the traffic.

The major challenge currently confronting us may be summarised as follows. Cities of today attract businesses and residents to their most accessible areas (city cores/city centres). This increase in activity results in increased transport flows which cannot be met simply by more initiatives to enhance vehicle access. The space vehicles need and the disruptive effect they have (even without fossil fuel powered engines) has a damaging impact that encroaches on the new ways in which city spaces are used. Still, peoples need of transport, both in and between cities is growing. More rail and bus transport links are needed that actually do reach the city cores.

Public spaces are much more than transport corridors and need to be developed as areas in which people can live, events can be held and culture promoted. This in turn requires a carefully conceived economic strategy, generally in partnership with private business interests. The denser and cohesive city also brings a serious need for a fully thought out strategy for green spaces in street areas and market places, as well as in parks and areas between buildings. This is true in terms of safety (where safety for most people is not road safety but safety from crime) but also in terms of preparing for climate change.

Summering

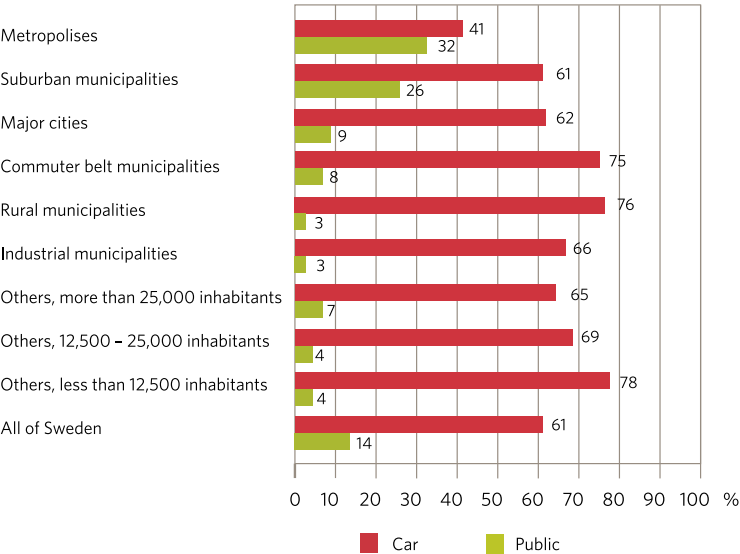
This new reality was one of the starting points for The Livable City project. Our conclusion is that building and transport development must have common objectives if the challenge is to be met. There need to be joint strategies for land utilisation and transport to ensure that the city's various districts can benefit from appropriate flow of traffic and quality of environment. The same applies for inter-city links, as well as those between a city and its rural surroundings.

But there is a dearth, not only of successful instances of such strategies, but of good solutions in general. Our experience from The Livable City project indicates that every effort should be made to avoid constructing functional city zones which end up being enclaves. Instead, a cohesive “urban web” devoid of barriers should be created; one which makes getting about by bicycle and on foot a truly attractive proposition. Routes that provide good access for frequent public transport services represent the main strand in this web. The exact location and design of sites for stopping points and stations will be important for the city's central functions. In a city you should be able to live life to the full without needing your own car.

Urban development and public transport

Jönköping, Norrköping and Uppsala have worked on strengthening their public transport systems by systematically recreating the link between building development and transport. In spite of that, in Jönköping the

number of trips per head of population has remained largely constant between 2000 and 2007 (88 trips per inhabitant). In Uppsala the proportion where public transport was used fell between 2000 and 2005 from



Proportion of journeys made with public transport by region of residence (Classification of the Swedish Association of Local Authorities and Regions, from the Travel Survey report of the Swedish Institute for Transport and Communications Analysis (SIKA) 6:5, 2005.)

Transport for an Attractive City



The handbooks of the Swedish Association of Local Authorities and Regions, Boverket and Trafikverket in the Transport for an Attractive City (TRAST) Series show how a transport strategy can be developed that will serve as a basis for both the municipality's comprehensive plan and traffic controlling measures.

14 to 11 per cent. The new measures initiated in 2008 have meant that by 2010 the proportion increased to 12 per cent. In Norrköping the number of passengers grew constantly from around 60 occasions on which the average person used public transport per year in 2002 to 73 in 2009.

Significant growth in the percentage use of public transport requires major long-term investment in the accessibility, reliability and operating frequency of the bus and rail system. In addition, there should be initiatives to influence people's behaviour, as well as economic incentives (see the section on sustainable travel).

The trunk line concept is the most successful way of creating routes that will remain strong in the long term. This involves enhancing accessibility and increasing operational frequency for buses and rail vehicles, which can in turn be achieved using localisation or prioritisation measures.

Businesses must be located centrally and near to public transport. An important part of the strategy is to have shops and businesses on the ground floors along important routes and at junctions. All three cities within The Livable City project are working to intensify land utilisation by imposing requirements on businesses

on ground floors. A grid structure based on blocks is a principle that is often applied, where car parks are to a large extent sited underground.

Public transport can be prioritised by using separate road lanes, priority at signals, good bus/tram stop design and clearer information systems. Experience indicates that urban development projects with tramway solutions, which are becoming more and more common in Europe and the rest of Scandinavia, add credibility and "energy" to the vision of a city route. This in turn acts as an incentive to other parties to plan and make new investments in terms of their presence on the route. This is what is currently happening in Norrköping.

Integrating national and regional transport with urban transport will result in simpler and more convenient public transport travel. In the surroundings of railway stations and other major interchanges there ought to be places to work (offices) and trade and service functions. In Jönköping, the county's largest bus stop area, Juneporten, adjacent to the railway station, has been upgraded and is now a central hub in Västra centrum, the western part of the city. Rebuilding the travel centre in Uppsala has meant that train, regional bus and urban transport have all been brought together at a single central point. It also means that bus lines outside the



The new public transport terminal in Uppsala, photo 2010.



A tram car in Norrköping. (Photo: Ann-Charlotte Larsson)

cities need to be organised as trunk line routes. In more densely populated regions, train transport is a means for increasing the interaction between population centres. The increase in traffic in parts of Sweden (Mälardalen and Skåne) are clear examples of how population centres can be interlinked to form a single region in labour market terms. Effective regional train transport requires good coordination with bus or other rail transport, as well as attractive stations and termini that are an integral part of the city. The lack of capacity in the national rail system may mean that regional transport has to take a back seat, which can hinder the way local labour markets operate and act as a brake on regional growth.

Rail transport systems need major investment wherever current financing is inadequate and unclear.

Coordinated planning of building development and public transport also needs to be followed by initiatives to make citizens aware of the new opportunities involved and that “smart” travel is good both for the environment and for public health. Experience from projects like sustainable travel indicate that incentives and economic controls are important contributory elements towards an attractive city that is efficient in transport terms, and that transport sector players have to become involved in the process.

Elements of strategies for promoting public transport:

- Define clear objectives (visions) for the initiative.
- Regional development planning must promote population centres as part of a coordination process. The central areas of the population centres must be easily reached with a high degree of accessibility.
- Produce strategies for developing the city around attractive city routes with high building density and public transport that functions well. Interchanges and railway stations are to be designed with safety and accessibility in mind, and as pleasant destinations for services, culture and recreation.
- Systematic work on sustainable travel will communicate the new opportunities and ensure that children and young people participate in the process.



Cycle parking near Uppsala travel centre (Photo: Dan Pettersson).

Larger and medium-sized cities have some of the major pre-requisites for becoming bicycle-friendly places. For distances up to 5 km the bicycle is a very competitive alternative to the private car. Bicycles are also an important complement to regional public transport. This is why incentives aimed at increased bicycle use

are important. The bicycle must be highlighted as an important means of transport in itself and not be “banished” and bundled together with all pedestrians, moped-users, rollerbladers, etc., who must be kept off the roads. The ideal is a cohesive urban network for both pedestrian and bicycle traffic

Recommendations to increase bicycle use

From the Uppsala Comprehensive plan 2010:

- A cohesive cycling network is to be created and made attractive – convenient, secure and safe for traffic. Existing bicycle lanes and cycle paths are to be upgraded to achieve better distinction between pedestrians and cyclists. One of the consequences of this is that cycle paths will be one-way only and are to be laid parallel to and in the same direction of travel as vehicle traffic, and that cycle paths are to be linked to stopping points for buses and trams, etc.
- Rural areas are to be provided with direct, safe and convenient cycle links over distances that are suitable for general use of bicycles. These should be in visual contact with roads or buildings and should be linked to stopping points for regional bus transport.
- Prioritise bicycle parking areas in the city core and near bus stops, etc., as need dictates.
- A “parking standard” for bicycles as an aid for planning and building legislation is to be developed.



Dragarbrunnsgatan, Uppsala (Photo: Dan Pettersson).

In cities that are connected by frequent regional and commuting train services, the parking of bicycles at a travel centre will be an important issue that often falls between two stools. A recommendation from the evaluation of bicycle management measures at Uppsala travel centre is that where larger railway stations are to be rebuilt or built from scratch, an organisation consisting of representatives of all involved actors should be set up in the initial stages of the project.

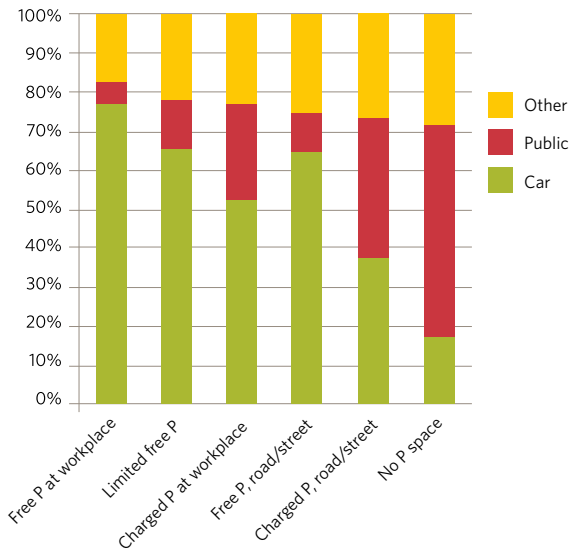
Car travel and attractive urban development

The car has been the norm in spatial planning ever since mass car ownership emerged. By norm we mean in this context the governing factor. The precedence accorded the car was codified in regulations for traffic differentiation, traffic separation, road standards and parking norms during the 1960s and 1970s. The car society has made this possible, spreading businesses and residents over wide areas, as the car could be used to “excuse”

planning mistakes and bridge distances on account of its speed and flexibility. With increasing sprawl (where new businesses and residential estates spread beyond the city) access to a car also became an important facet of quality of life, with the result that individuals use the car as a means of ensuring the cohesion of their



This illustration shows the amount of space needed by a car compared to that required by a pedestrian, from “Kollektivtrafik som norm” (Public Transport as the Norm), 2009.



Access to a free parking space is a major factor in a person's choice of transport to get to work

daily timetable. Though we may admit there is freedom of choice, it is against a backdrop of “structural compulsion”. To this should be added the fact that the car is both a symbol of modern society and of individual success.

Research from the past two decades and the experience gained from The Livable City project very clearly demonstrate that the new functions of the city and the requirements for attractive public spaces are not reconcilable with major car flows – even given the fact that noise and exhaust emissions are gradually being limited thanks to new technology. The simple fact of the matter is that in major cities the car takes up too much of the urban environment. The role of the car in urban development in the new globalised economy has to change, and the precedence accorded the car must be replaced by new generally accepted principles governing the transport system. We need more good examples to work from before there can be a true paradigm shift. In The Livable City project, the work on Dragarbrunnsgatan in Uppsala has resulted in the development of a new type

of street. Termed “gångfartsgata” in Swedish, this is a street where pedestrians have precedence, though cars may drive through at walking pace. The Skvallertorget in Norrköping was a precursor of this concept.

During the course of the project it has become possible to apply more speed limits than was previously the case. The main focus has been to reduce the speed limit to 30 km/h in sensitive urban areas and to apply a 40 km/h limit to sensitive stretches of the main road network for car traffic. The purpose behind a particular design of the street will be the decisive factor as to whether there is interplay between pedestrians and car users. For this reason, higher speed limits may need to be retained pending changes in street layout. A compromise may be reached by setting a limit of 40 km/h over a larger area, which will be an important step forward compared to the 50 km/h limit. On those parts of the main road network that can take substantial traffic, the long-term objective is to have a 60 km/h limit.

The need to use a car where it is superior for the purpose, such as on routes linking urban and rural communities, highlights the importance of local and regional “park and ride” solutions. Car traffic deriving from city visits and where the city is the final destination for the user is made easier by ensuring that work-related commuting is effected by other means of transport.

Commuters will not use the car to commute into the city if parking proves impossible or too expensive. So, in order to encourage people to use public transport, bicycles or a combination of both, there needs to be a change in parking policy. Requirements relating to minimum numbers of parking spots for new buildings need to be replaced by maximal requirements. Agreements must be reached with employers to the effect that they should, for instance, charge their employees for parking, or that the parking fee should be increased.

The point, therefore, is to make the car less competitive compared to walking, using a bicycle or using public transport, by manipulating the physical and economic conditions governing its use. The car must not be allowed to set the standard to the extent it currently does. A conscious switch where the car can reach its destinations, but on different terms in respect of time and economics than those that have hitherto prevailed, will also release new land resources for urban develop-

ment. Many street systems are over-dimensioned for their purpose, including for future traffic flows of some magnitude. In addition to this, there are large car parks and non-utilisable land in the form of noise abatement zones, etc. Applying different conditions to car use means that these land assets can be used for building development or recreational purposes. New building developments can also provide the wherewithal for financing new rail systems or trunk line bus systems.

Summary

For car traffic in cities, there need to be solutions where car access to the city's various functions remains, but where the accessibility in question is reduced in favour of pedestrian and bicycle traffic, as well as public transport. A number of solutions are emerging, though these are still unique to the situation in which they have been implemented. Common to them all is that car speeds are being restricted to increase road safety and heighten the sense of security on the part of unprotected users of the system. Lower speeds also make public spaces more agreeable places to frequent and generally enhance the urban environment. This requires that streets be designed in such a way that pedestrians become the main players and car drivers are made to feel that driving at low speed in such a street is the natural thing to do. The result will be less noise and more attractive street areas without any reduction in road safety. The ostensible safety of a differentiated system will be replaced by an increase in driver attentiveness based on the fact that the design of the street will "signal" that it is cars that come second.

The city and goods traffic

The way goods is distributed in the cities is changing. Shops and stores are no longer keeping the same amount of stock they used to. New ordering patterns mean more frequent deliveries undertaken by vehicles that are not fully loaded. The larger store chains use their own systems, often with heavy good vehicles. Some types of goods involve "from start to finish" delivery concepts, in other words not just delivering the goods to the shop, but involving marketing and display presentations, etc., in the shop. This involves long standing times for the distributor vehicle. Overall, this

results in increased transport flows and more conflicts with other users of the streets for major periods of the day and, indeed, night. The objective of sustainable development and a livable urban environment for the people who live and work in the city means that the municipalities' initiatives to enhance accessibility and attractiveness have highlighted the needs of other transport/road users and interest groups, to the detriment of accessibility for goods distribution purposes.

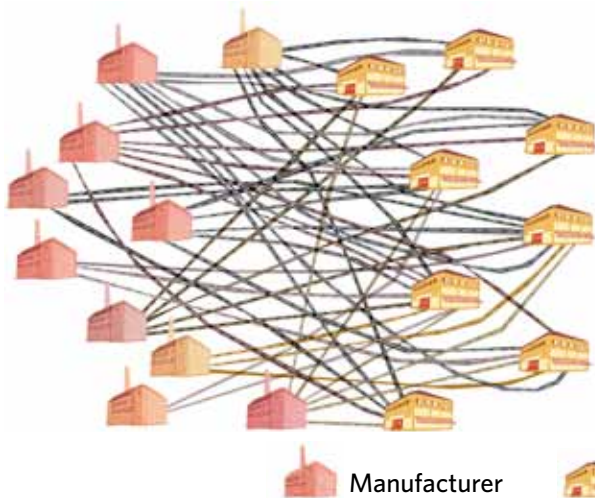
The various experiences and surveys derived from The Livable City project indicate that work on goods

distribution involves two courses of action. The first is based on regulations, and the second on making the transport system more effective. The latter also includes coordinating the municipality's own goods orders. Experience gained from the Uppsala project indicates that the distributors had not thought of themselves as having a particularly high profile or being involved in the development, which, they emphatically claim, is governed by the nature of the orders. At the same time, more breaches of the rules are being noted, where distributors load or unload with little regard for others.

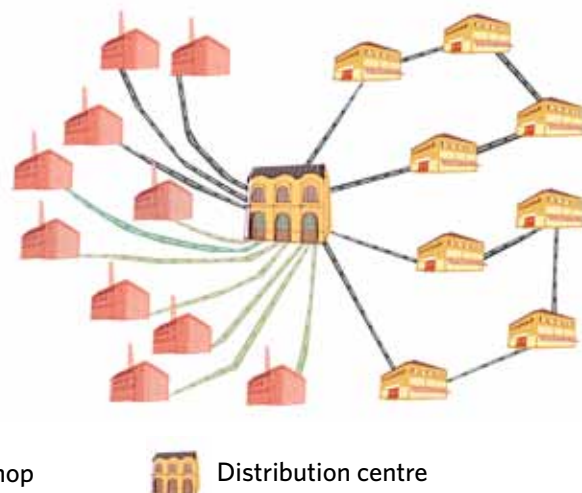
The purpose of regulations is to solve specific problems. On the one hand these may be local traffic regulations that specify the size or weight of vehicles that are allowed access to different parts of the city, and on the other, regulations for where and when loading and unloading is permitted. Loading ramps and loading areas designed and constructed for previous urban renewal projects are often poorly suited for today's vehicles. Any regulation governing when loading and unloading



Skaraborgsgatan in Stockholm. A narrow street passable by cars with room for them to park for short periods. (Photo: Arken SE Arkitekter.)



Vehicle flow chart, current delivery patterns. From the report "Varudistribution i staden, exempel på arbetssätt" (Distribution of Goods in the City, Examples of Working Methods), 2007



Deliveries flow chart with co-distribution. From the report "Varudistribution i staden, exempel på arbetssätt" (Distribution of Goods in the City, Examples of Working Methods), 2007

is permitted has an impact on when and where goods distribution can take place. New regulations should therefore be combined with a general overhaul of regulations, with the aim of providing loading areas that work well and a process which will result in retailers changing their order patterns. Otherwise, even carefully conceived solutions will be used as an “excuse” as time goes on, as the degree of monitoring is low and the distributor is pressurised by the business placing the order.

By creating low-emission zones where environmental requirements are imposed on lorries over 3.5 tonnes, improvements can be had in terms of emissions. A trial run in Gothenburg points in this direction. Another way of reducing the number of goods shipments in built-up areas is to get the distributors to coordinate the goods they need to deliver. If the goods is trans-shipped, loading can be made more efficient, the vehicle size can match the quantity of goods and one vehicle can cover one area instead of several having to do so. Two projects involving joint distribution have been analysed, one in Linköping and one in the old town of Stockholm. The results support the view that fewer shipment vehicles are needed, and that those that are used can carry greater loads. This has positive consequences for the

environment. In Linköping, distributors have been able to save money because fewer vehicles were needed. But there are problems with joint distribution that make it difficult to introduce it more generally. The distributor does not have control of the entire distribution chain, and brand exposure is made more difficult. In addition, a trans-shipment centre is needed as well as a shared logistics system between the distributors.

In Uppsala the municipality’s administrative offices have attempted to coordinate their own goods orders to nursery schools, old people’s homes, etc. This represents significant movements of goods. The evaluation of this trial indicates that coordinated orders and shipments have the following results:

- Emissions of greenhouse gases and other harmful emissions are reduced (10 per cent compared with the situation pre-project)
- The shipments become more cost-effective and there is more effective utilisation of the municipality’s framework agreement
- The safety of citizens and employees is increased, as the number of heavy vehicles is reduced, thanks to fewer goods deliveries, which are subject to greater regulation.

Summary

It is important that far greater attention be devoted to the logistics of goods shipments in urban development processes. Working on enhancing the environmental awareness of the businesses placing orders appears to be an effective way of reducing the distances covered and number of heavy vehicles in built-up areas.

Sustainable travel – a broader approach

In the section above we have dealt at length with physical measures for pedestrians, bicycle-users and public transport. These require systematic structured work over the long term. This takes time and costs a lot of money. But simply enhancing the infrastructure does not always result in passengers and other users changing their behaviour.

The term “sustainable travel” is used by a wide range of relevant organisations and other interested parties in Sweden, but it has never been defined in a manner that allows of universal application. In The Livable City, “sustainable travel” is used to denote means of transport and journeys that are efficient and beneficial for economic and community development as well as health and the environment. More specifically, it refers in the main to replacing car transport with travel on foot, by bicycle and by public transport, or else, by simply not needing to travel at all. It also has a secondary application: more efficient use of cars.

The practical side of work devoted to facilitating sustainable travel involves influencing attitudes and behaviour and conducting a sustainable planning process that will provide the conditions for more efficient travel. Behaviour can be modified by means of information, communication, cooperation and marketing measures in which people are informed of new ways of travelling, and also given an opportunity to try them out. The purpose of sustainable planning (sustainable transport and urban planning) is to create more efficient travel by planning a framework in which people will be able to make sustainable transport choices. The determining factor for such choices is that community planning, the built environment and the transport system should all provide the right conditions to support sustainable travel, these being in the form of physical structures, the right organisation and suitable means of transport. People’s travel behaviour can also be modified by using measures involving some degree of compulsion, such as parking charges and congestion charges.

Examples of measures that have proved successful are “test passenger projects” (where people get a chance to try out public transport for free over a period of time), direct targeting of employees of specific companies, establishing car pools, walking and cycling to school, “healthy pedalling projects” (where people who would normally take the car are encouraged to cycle some of the way instead), “walking school buses”, training in ecodriving, as well as the production and implementation of company/institutional travel policies. For the measures to be successful, they generally need to be implemented in a cooperative process involving a number of parties. Examples of parties to such cooperative processes in Sweden are the providers of bus and coach services in a given county, regional councils, county administrative boards, Trafikverket, police authorities, the National Society for Road Safety, road carriers and taxi firms.

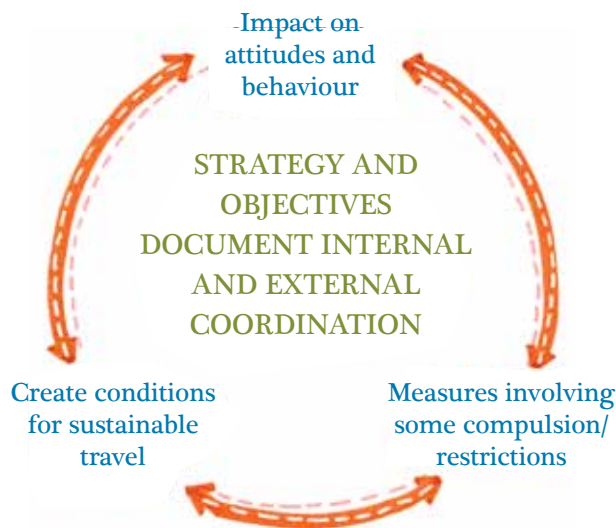


Diagram showing the relationship between factors influencing the choice of means of transport.

For the three cities it has been important to combine their work on sustainable travel with urban development issues. Because the three cities started out with their own specified projects, this meant that those involved began to increasingly combine the two aspects. In Norrköping the work on sustainable travel was made a permanent feature and it is now undertaken in the offices of the municipal board, accessible to all municipal departments. An action plan with relevant measures has been produced. In Jönköping an action plan for sustainable travel for 2011-2013 is to be approved in autumn 2010; this is to contain a number of specific measures as well as a budget for its implementation. The measures have been designed to meet the municipal objectives in terms of sustainable development that have been adopted in “Programme for sustainable development – environment”.

This has provided the work on sustainable travel with

another platform, and the municipalities are now relatively well advanced in their work on producing objectives documents that involve or deal with issues of mobility. Work within their own departments on work-related commuting and work-related travel is becoming more and more systematic. The municipalities are not however as advanced in their work beyond the confines of their own municipal organisation.

When it comes to physical measures, the work on sustainable travel does now involve greater scope. The main reason for this is that the measures mutually reinforce their own effects. It is at the same time a way of accommodating the work within the municipalities' normal day-to-day activities. The main examples of cases where sustainable travel and physical measures are combined together occur mainly in connection with changes and investments in the pedestrian and cycle network, as well as in public transport.

Summary

The experience derived from The Livable City project and other municipalities may be summarised in terms of the following key factors that contribute to the success of the work on sustainable travel:

- Take both a short-term and long-term view.
- Work from an overall transport strategy.
- Produce an action plan that has both hard and soft measures.
- Consult with all concerned.
- Conduct an evaluation as a basis for future initiatives/investments.
- Combine physical measures with measures to impact on behaviour.

Coordinating national, regional and municipal financing of infrastructure projects



How are infrastructure projects financed?

The state is responsible for planning, financing and constructing public highways and railways. The municipality has a basic duty of welfare as well as overall responsibility for developing its own geographic area, including the municipal road network, which includes streets and public roads in build-up-areas. This distribution of responsibilities creates problems in times of rapid change where major underlying transformations are involved. The city is a national economic motor that requires resources to develop. This involves ensuring there is a place for a visionary and coordinated approach, and then delivering high quality in the transformed environments. Via the planning process we

should be able to predict and fully exploit the potential of future changes in accessibility and an improved environment for generating new value. This will happen partly via increases in the value of land and property, and partly due to larger, more robust and dynamic local labour markets – with greater economic growth as a consequence.

New infrastructure projects mean that land that at one time was of no interest in terms of building development now can become ripe for utilisation and may, in turn, result in rising property and land values. Analogously, existing properties may acquire greater value

due to improved access in the city. Changes in function of properties represent a driving force in development terms that is just as important as new utilisation, only less noteworthy and less studied. The attractiveness of road and rail links (in particular motorway exits and railway stations) and the physical link to the city or other main location are decisive in determining the exact nature of the value created. By linking together national, regional and local public transport systems there can also be some general rerouting, resulting in new terminals and stopping points. The rebuilding of the central railway station in Uppsala is a good example. Now when the station area linking all train traffic and regional and local bus traffic together is approaching completion, a number of new utilisation projects have become worth looking at with a view to developments benefiting from the increased accessibility and improved quality of the city.

Although they may appear to be major investments in terms of their individual projects, infrastructure investments are a very small part of the gross national product. Sweden's economic history shows that major general infrastructure initiatives have helped achieve industrialisation, urbanisation and what was in international terms the rapid growth of a welfare state.

In other words, it has become increasingly clear that we need to coordinate national, regional and municipal investments. The way planning is conducted in Sweden has proved to be unwieldy in taking an innovative approach to these issues.

Joint financing imposes requirements on the planning process

Current infrastructure planning is characterised by an ambition to create an efficient infrastructure, whereas the impact of the latter on the economy of local communities and on their social development tends to be

relegated to a subordinate role, these latter aspects being only partially acknowledged in the socio-economic assessments that are applied. Given the distribution of responsibilities between the state and municipality, the municipalities have a tradition of requiring "more and better", since any infrastructure whose standard exceeds what is actually required rarely results in costs to the municipality. This makes it harder to have creative dialogue that will solve problems between the state, region and municipality, as well as within their relevant organisations.

Traditionally delineated roles for the various actors involved, based on their underlying duties and regulatory frameworks, both of which then have an effect on any practical application, make such dialogue between the actors harder. Case studies and the evaluation of The Livable City project do however also show that this is seldom the main cause of delays and poor solutions. Although in practice appeals will delay realisation of a project, they are often symptoms of planning processes that have been poorly coordinated and implemented. The conclusion from this project is that a new planning process for infrastructure planning is needed that will promote cooperation between the various levels. Work relating to this is ongoing within the Government Offices.

The national plan for the transport system for 2010–2021 is the first joint plan for all four modes of transport. It is also the first plan to make use of the concept of co-financing. The plan indicates a willingness on the part of municipalities and regions to co-finance national infrastructure projects. Total co-financing of national infrastructure amounts to approximately 60 billion SEK over the course of the period of the plan, of which nearly a third is to be contributed by the municipalities and regions. The major part of the co-financing comes from congestion tax. Co-financing imposes new requirements on the planning process. The municipality will

have every right to be involved in influencing the design and content of the project in a way that differs from what has hitherto been the case.

Practical experience also shows that co-financing contributes to negotiate situations that generate creativity. The actors may have different interests in the planned investment, but they will be united in their view that the investment will be beneficial and add value. The incentive for creativity derives from the development of solutions that generate value for all actors involved - what are generally termed win-win situations. This may

involve anything from the design and standard of the infrastructure to the possibility of using land and properties in such a way that value accrues via improved accessibility. It is also the case that no one is so disadvantaged by the project that they do not want to see the process carried out to its successful conclusion. A long-standing tradition of negotiation also dictates that the parties must treat each other with mutual respect. If an actor views himself as in some way above the others, he will generate indirect resistance and a reluctance to reach compromises.

Summering

The challenge is to develop negotiating processes that can deal with different transport needs and land and property values, and at the same time predict and benefit from local and regional development once the infrastructure is fully in place

Common aims and objectives make it easier

To achieve successful solutions that involve cooperation at both multiple levels and across, a set of common aims and objectives for the project need to be developed early on. This may need the actors to approach each other in new ways that go against the grain of tradition. The Livable City project contains interesting examples where, thanks to new and more open processes, “retakes” (to borrow a cinematic term) have resulted in aims and objectives that all parties then regard as superior to the ones they themselves recommended earlier on.

In one of the cases, the access road and bypass for Uppsala from Enköping in the direction of the E4 – Riksväg 55 was being reappraised. For urban development reasons, the municipality had supported an access road in the form of a city street, whereas Vägverket and re-

presentatives of the region were committed to a bypass of motorway standard that would be more efficient at channelling the traffic around the city, but which would result in a large barrier in the cityscape separating it off from any future parts of the city on the other side. It proved possible to resolve the objective of combining urban development and regional accessibility by means of a “slimmed down” motorway solution, but which was to be built below the natural ground level. The main factor contributing to this success was a series of open workshops allowing clarification of the decision-makers understanding of the complex requirements involved.

In the second case, a “retake” relating to a new railway stopping point on the Ostkustbanan south of Uppsala was arrived at via the so-called Charette procedure¹.

¹) A method which involves decision-makers and other stakeholders getting together over a period of one or more days to brainstorm solutions. These will then be fleshed out by architects and planners.



Illustration of the alternative plan for Riksväg 55 at lowered elevation. From Uppsala Workshop – Highway 55, Kvarnbolund–Berthåga section.

For the municipality, the stopping point was the anchor pin of an urban development that was to change a suburb into a vibrant station community. The connection between the railway station's location and the conditions for expansion of the city district was the main point at issue here. For Banverket, the location for a “train stopping point” involved utilising existing infrastructure around an older stop. Different locations were appraised in the process. The end result was two alternatives of equal interest to Banverket, but which also managed to fulfil the vision of a fully functioning city district around the stopping point that the municipality had in mind.

Co-financing on the part of the state

Co-financing by the state is what used to be called state subsidy. It can be granted to municipalities for road safety and environmental measures, as well as to regional transport consortia for regional public transport facilities and rail vehicles. Major projects must be included as part of the investment plan; smaller projects can be paid for at shorter intervals (from general contingency funds).



Illustration of the future Dragarbrunnsgatan. (Illustration: White arkitekter AB)

Cooperation between the public and private sectors results in new opportunities

The fact that new and high-quality existing infrastructure generates new property values makes state/private cooperation (abbreviated as “OPS” in Swedish) a very important factor in successful urban development. In comparison with other countries, Sweden has extensive experience of this. In other countries, local financing is generally dependent on revenue from local property taxes, which will grow as a result of increases in land values. OPS solutions in Sweden are of particular relevance to a city's streets and squares, where the state will only act as co-financer in very exceptional cases.

In order to establish agreements between property owners and municipalities, the planning process needs to progress a lot quicker than is currently the case. No private financier has time to wait five to ten years for a decision on co-financing from the state.

In Sweden, voluntary agreements have proved to be a

very capable instrument involving cooperation between municipalities and city centre associations. The transformation of Dragarbrunnsgatan in Uppsala is being undertaken on this basis. The municipality and the organisation for city centre interests (Uppsala City) have entered into an agreement in principle which, although not binding on the individual property owners, is still an important incentive in bringing about full agreements. The street is now in the throes of a rapid transformation process.

In Jönköping the municipality often works in tandem with a wide range of actors in the city in various sub-projects under the auspices of its urban development vision, and where co-financing is the order of the day. A property owners' interest group is involved in the work on transforming the industrial areas around the southern end of Munksjö Lake. This group is involved in the ongoing work here and is co-financing various inquiries within the process.

In countries such as Great Britain, Germany and Canada, special legal forms have been developed – Business Improvement Districts (BIDs) – to effect upgrades in city centres. What is specific to legislation involving BIDs is that if a majority of the interested parties are in favour of some overall solution for a part of the city centre, for instance, those parties that are against the solution must also play their part in providing the finance. BIDs are evidence of the degree to which legislation can be driven by a conviction of the importance of overall solutions for street environments and other public spaces, particularly in the city centres. In other case - external shopping centres will be in favor, as these are operated by a single operating company and can easily implement extensions or upgrades of the centre as a whole.

Summary

The conclusions of The Livable City for co-financing are in the main twofold. The requirement for co-financing leads on the one hand to increased predictability in transformation projects that involve new investment in both infrastructure and building development, and, on the other, to forms of coordination that are more equal, resulting in more creative solutions. In formulating future financing and planning regulations it is important that the latter be based on these two factors governing potential success.

Formal and informal obstacles



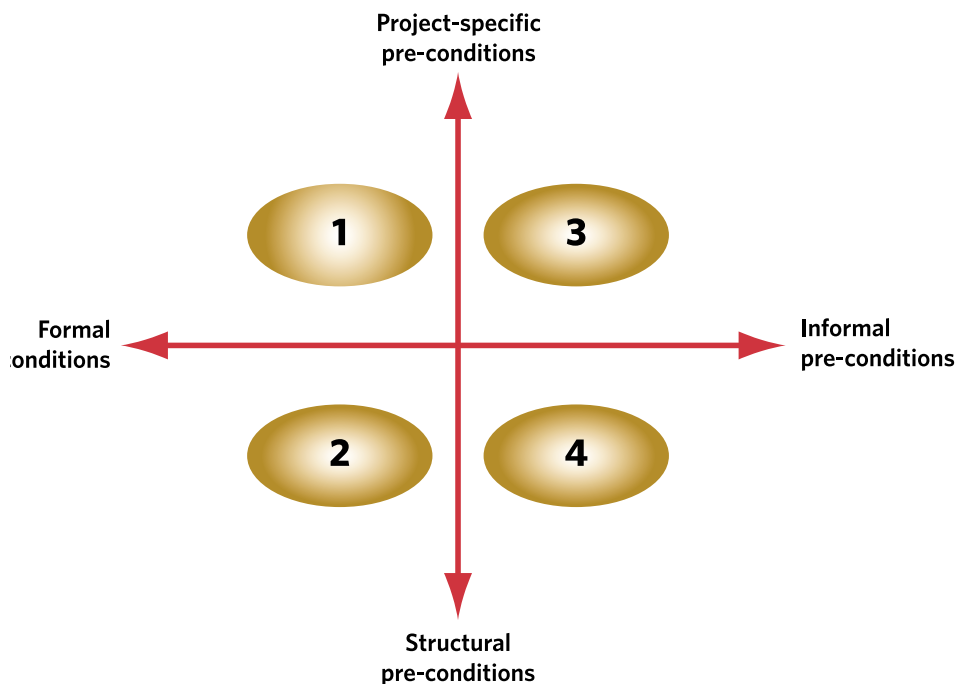
The interplay between national and municipal planning

A wide range of actors are involved in the planning processes of infrastructure projects. They have different interests and they work according to different sets of rules and different approaches. All of these roles and perspectives are needed - on this there is general agreement. But the experience of The Livable City project shows that it is difficult to manage these various interests in an innovative manner. What characterises the planning processes is that they are uncoordinated and that the interplay between municipal planning and general infrastructure planning is not very advanced. Most people tend to blame the various difficulties on

lack of coordination between the different areas of Swedish legislation, such as the Planning and Building Act, the Public Roads Act, the Railway Act and the Environmental Code. But this is not actually the main reason behind the problem. In evaluating The Livable City project, we have tried to clarify the problem with the aid of the diagram over the page.

The examples on the following pages show how all four fields of the diagram are of importance for whether a project is successful, is blocked or results in inferior solutions.

The pre-conditions for coordinated planning are both formal and informal in character. They are to some extent contained within the relevant project, as well as being part of a more general structural plan that goes beyond any specific project. From the KTH Royal Institute of Technology's evaluation of the first stage of *The Livable City*.



Urban regeneration in Uppsala

When new E4 transport routes bypassed Uppsala, the intention was to rebuild earlier city access streets and thoroughfares as “city streets” in accordance with the relevant comprehensive plan for 2002. The first application of this concept was to involve Råbyvägen. During a densification project along the access road it became

apparent that the municipal highways department and the urban planning department had completely different ideas of what a city street was meant to be. It was only with the advent of the comprehensive plan for 2010 that a principle was developed for assessing the street system’s accessibility for different types of traffic against its significance as a site for meeting places and

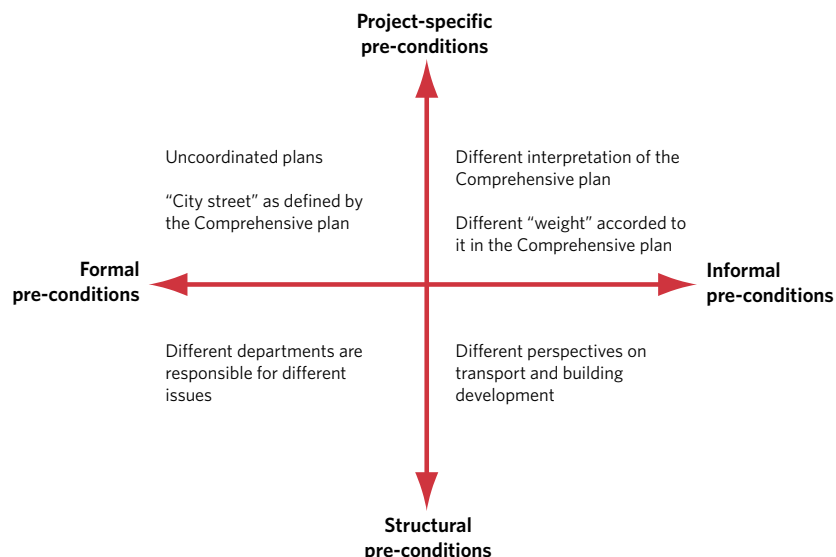


Råbyvägen today.



The vision of it as a city street.

Reasons for the conflict in Uppsala. One problem is that the comprehensive plan is not always an instrument applied by the transport/traffic department in their own operations. From the KTH Royal Institute of Technology's evaluation of the first stage of The Livable City.



an area for people to frequent and live in. An element of the process that proved to have a creative impact was the development of local transport corridors and city corridors as a backbone for urban development.

Urban development project in Norrköping

In Norrköping, after many years' work, policy makers decided to extend the tramway to Ringdansen/Navestad, a district approximately 4 km south of the city, with the first phase of the project running to Hageby. The aim of the project was to integrate a district with

apartment blocks with the inner city area. This was to be done both by improving accessibility and by means of additional building development along the planned tramway route. The municipality counted on getting state subsidies in line with the system of rules applying at the time, and Banverket approved the project in principle.

The formal application for a subsidy had not however managed to gain a mention in the national plan for railway investments for 2004–2015. This meant that there



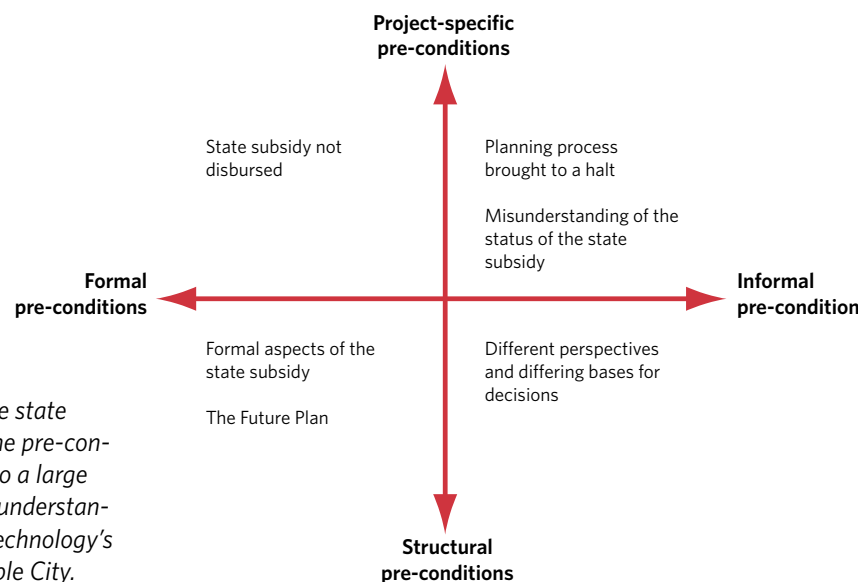
The extension of the tramway from central Norrköping westwards, beyond Söderleden and past Hageby centre.



Photograph of the inauguration of the new tramway to Hageby in Norrköping. (Photo: Lillemor Johansson)

were no funds available for any state subsidy in spite of approval in principle having been granted. In October 2008, once it was discovered that state subsidies were no longer a viable approach, the municipality was able to take the decision to extend the tramway over the first

phase to Hageby without a state subsidy. This phase of the tramway was inaugurated on 21 October 2010. Now the second phase is also under construction without any state subsidy being involved.



Though there were formal aspects of the state subsidy that had an adverse effect on the pre-conditions for coordination in Norrköping, to a large extent it was just a straightforward misunderstanding. From the KTH Royal Institute of Technology's evaluation of the first stage of The Livable City.

The rules have been reviewed in the national transport plan adopted for 2010–2021. The state subsidy (now state co-financing) is to form part of the annual contingency funds instead of being allocated to nominated projects and designated for the entire period, as was previously the case.

Urban Development Vision 2.0 in Jönköping – southern end of Munksjö Lake

In its work on renewal around Munksjö Lake, involving densification of the industrial areas around the southern end of Munksjö Lake and their general urbanisation, the municipality is working in close cooperation with a number of different parties, such as property owners and Trafikverket, as well as others. A special interest group has been formed which is monitoring the work on producing a framework programme for the southern end of Munksjö Lake. This will form the basis for a number of follow-ons, including future detailed plans.

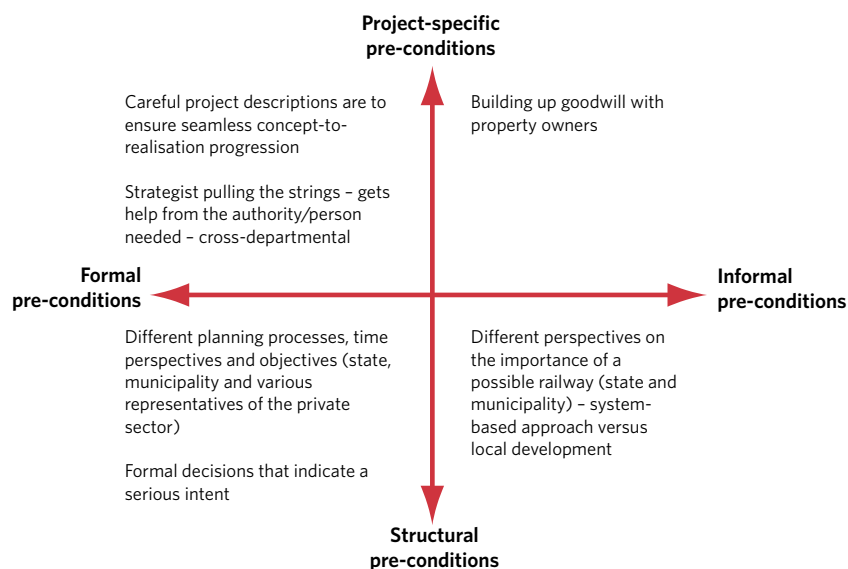
Banverket's pilot study for a cross-city route for the Götalandsbanan contains three alternative routes through

Jönköping, with the municipality recommending the location at the southern end of Munksjö Lake. A reaction by state bodies to the three alternatives proposed in the pilot study will not be forthcoming until after the railway inquiry has taken place.

The railway station location to the south of Munksjö Lake may today be described as “out of town”, and it will take many years of continuous work before the whole of the transformation area around the southern end of Munksjö Lake takes on truly urban proportions. The municipality needs to develop the transformation area in spite of the uncertainty surrounding the location of the high-speed rail link. The Interest to develop the area is great and the hope is that the framework programme can be adopted at the end of 2011/start of 2012 so that the detailed plans for the first phases can be produced.

The municipality is frustrated over the lack of foresight in the transport planning process. The planning horizon now being used in Trafikverket's specific measures planning (10–12 years) is by no means adequate for planning and building a new city.

The two planning processes (based on the Railways Act and the Planning and Building Act, respectively) need coordinating, in terms of both place and time. This diagram shows the situation relating to the ongoing work on Jönköping's urban development vision. From the KTH Royal Institute of Technology's evaluation of the project as a whole.



The example also illustrates the dilemma of the state in participating in the early phases of the planning process. Without a policy guideline decision as to whether the rail link will be built at all, Trafikverket cannot come to a decision about the location of the station. At the same time, the example shows that coordination is needed if the municipality is to be able to realise all its urban development strategies.

Parallel and double assessment and approval process

To allow for infrastructure construction, the state has a right to plan the use of land for extension of a public road or rail network. But the municipality can also plan use of the same area of land under the terms of the Planning and Building Act. So both a municipal detailed plan and, for instance, a working plan under the terms of the Public Roads Act can deal with the same area, and this is also a necessity in many cases where the infrastructure project also involves building developments. This then becomes a double assessment and approval process.

The Swedish Environmental Code was introduced in 1999 as a general item of legislation covering various areas. It also introduced the requirement of an approval process for major infrastructure projects. To achieve harmonisation with European legislation, requirements were introduced for an environmental impact assessment (EIA) for road and rail plans and detailed plans (where needed). In accordance with the practice of other countries, EIA approval was formulated in terms of a planning process. The aim is that the planning process for highways and railways (and possibly also that obtaining under the Planning and Building Act) be combined with the process for EIA in a kind of parallel approval process.

The national infrastructure planning process, which

is undertaken every four years or so, has hitherto incorporated the requirement that projects due to be commenced during the forthcoming planning period be listed in terms of priority. To be included, completed pilot studies are required, defining the location and geographic extent of the project in question. Major land utilisation projects clearly need to be dealt with as part of a municipal comprehensive plan. This results in two parallel processes at the strategic level as well.

An overriding conclusion from The Livable City project is that, in spite of the statutory requirements, in most cases the planning process is brought to a successful conclusion. But it takes a long time, and there are many administrative hurdles that have to be overcome and many decisions to be taken, and these can always be appealed. Few of the participants have any overview of the entire planning system, and this creates a problem in terms of the democratic nature of it. If not even the experts can grasp it in its entirety, how can the man in the street be expected to understand how it all knits together?

In March 2009, the government appointed a Parliamentary Commission with a remit to review the Public Roads Act and the Railway Act with a view to achieving more effective planning of highways and railways. The inquiry, which presented its findings in August 2010, resulted in a number of proposals for simplifying the legislation in question, including a single cohesive process governed by law (instead of what had previously been three processes: pilot study, inquiry and plan).

At the same time, the government appointed a Commissioner, tasked with producing a proposal for a new planning process for the transport system based on the principle of co-financing. The proposal is due to be presented in May 2011. The directive governing the work of the inquiry also called for endorsement of the so-called four-stage principle and that the planning process

should promote improved coordination with the planning processes for spatial planning in general.

The Swedish Environmental quality standards

There are a number of environmental issues that have to be considered in strategic work on transport solutions and building development. The Livable City project has brought together various ways, based on experience, of how these problems can be managed. Noise, air pollution and hazardous goods are the three most common problems

Noise

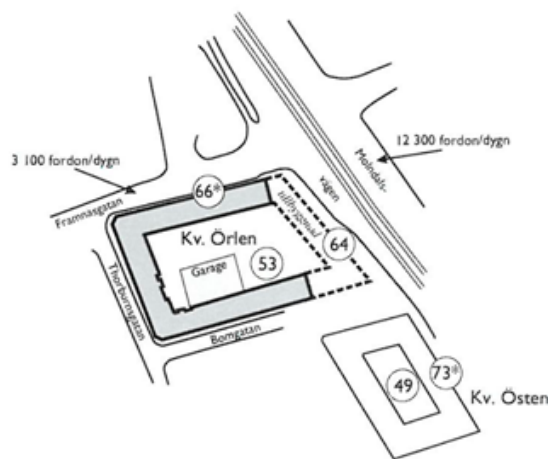
Noise is intrusive for many people, and traffic is the greatest source of noise. In many cases this has led to problems in realising urban renewal projects. But with the right expertise, noise does not need to be a planning problem. There is a requirement in Sweden for good noise reduction alongside major transport arteries. This is normally achieved by safeguarding distances combined with embankments and hoardings. Screens and

distances are not however suitable in the dense layout of the city. By having a mix of functions in different storeys of buildings - so, for example, business premises on the ground floor, offices in the floor above and apartments at the very top (as in example from Uppsala) - most situations can be resolved by means of glazed balconies, absorbent material on the building fascias, quiet outdoor areas at the rear, and greenery to deflect intrusive light. In addition, traffic controlling measures can be used, such as reducing speeds, moving heavy traffic elsewhere or using quiet surfacings. These solutions are moreover natural elements in an environment of urban type. More difficult is managing noise next to a railway line, but in the area next to the possible new station in Norrköping (Butängen) the noise problem has been identified well in advance in connection with production of a more in-depth version of the comprehensive plan. A one-kilometre zone along the length of the future railway line will need special noise measures which will have to be further investigated as work on the final plan progresses.

Environmental quality standards for particles and nitric oxides

The environmental quality standards for particles and nitric oxides can in part be met by having wide well-ventilated streets. It will, on the other hand, be more difficult to achieve the densification and new urban environments that tend to promote walking, bicycle use and public transport.

In all three cities, work relating to their statutory duties to meet environmental quality standards continues. This work has not been included in The Livable City project. Examples of such initiatives are prohibitions on the use of studded tyres, the introduction of low-emission zones and traffic rerouting measures, increasing the proportional use of public transport and the use of biogas or ethanol as fuels, as well as disseminating information as part of the sustainable travel initiative.



Adding noise-control measures in building development, from the report "Infrastrukturrelaterade skyddsavstånd" (Infrastructure-Related Safety Distances), 2010

Hazardous goods – safeguarding distances are not the solution

The county administrative boards in Stockholm, Gothenburg and Malmö have agreed a common approach to hazardous goods by road and rail. This approach is based on the requirements of different safeguard distances from a road and railway line for different types of building development. For building development within this distance, requirements are imposed relating to a special risk assessment or risk analysis. Conventional risk models employ the concept of acceptable risk. An acceptable risk may be equated with an acceptable cost in socio-economic terms.

The Station Vicinity Location project (referred to in Swedish as “Stationsnära läge”) has produced a model that deals with risks and benefits in respect of building development in the vicinity of a railway station. The model is intended to allow a degree of departure from the conventional risk model by also allowing for the benefits that can accrue. The idea here is that it should

Aspect	Weighting	Value (-5 to +5)	Basis for evaluation
Business & Employment			
Management of natural resources			
Environmental impact			
Accessibility from a community perspective			
Safety			
Noise			
Security			
Total	1.0	YZX	

Model from the report “Risk och nytta – kan man väga riskerna med stationsnära byggande mot samhällsnyttan” (Risk and benefit – is it possible to set the risks involved in building developments near stations against the benefit to the community as a whole?)

be possible to accept a higher risk if there is sufficient concomitant benefit.

Application of the model allows for handling the risk situation different in every specific railway situation. So, for instance, the risk situation at the station in Borlänge – with an adjacent trans-shipment terminal where two serious accidents with hazardous goods have occurred – is different to that at a station frequented only by commuter trains.

Is the concept of a safeguarding distance out of date?

Guidelines and safeguarding distances relating to infrastructure concern noise, air quality, vibrations, electro-magnetic effects, hazardous goods shipments and accidents. The report “The railway in spatial planning” (Järnvägen i samhällsplaneringen) (Banverket 2009) contains updated safeguarding distances to be applied around railway installations, as well as specific guidance on planning in the immediate vicinity of the railway. As far as the roads are concerned, the Vägverket regions have produced regional documentary material for spatial planning which deals with such matters. All decisions must be based on full and adequate documentary material justifying the decision.

To prevent planning deadlock, it is important that issues of risk and health and safety are included in the planning process from the very beginning. The comprehensive plan for the the area around the new railway station in Norrköping, shows that it is possible to plan and build livable urban environments when all those involved work towards a common objective. In the final analysis, it is a question of additional costs for safety measures – costs that need to be identified early on in the process.

The conclusion is that there is no need to update infrastructure-related guidelines and safeguarding dis-

tances. It is the methods, decision basis and arenas for their practical application that need developing.

Don't blame legislation for failures!

The examples above show that it is not planning legislation that is to blame, even though it can contribute to long drawn-out processes. The most important problems of a formal nature are connected with municipal

organisation and regulations for state infrastructure investments.

It is the informal matters, relating to various roles and expectations, that turn out to have greater significance for the project's success. The Livable City has produced a publication "Key factors in successful urban development", which is a compilation of lessons learnt from projects that have been successful.

Summary

Our conclusion? Don't blame legislation if a project is unsuccessful!

From the very start, the most important actors with an interest in the project should be identified and involved. To ensure the process for a complex project is successful, it needs to involve everybody in a general exchange of information and ideas.

Here are some of the factors contributing to its success:

- All actors should prioritise what is most important and sideline other matters
- Respect each other's interests and be prepared to trust "the others" to be sensible in their actions too
- Develop a common set of aims and objectives for what you want to achieve and what it can cost
- Reach agreement early on as to the exact benefits that will justify the costs.

In general, there is a need for training in the acquisition of negotiating methods. Compromises are not always the right solution. Fruitful discussion and creativity are important factors in creating a "win-win situation".

Sharing methodology and experiences



Acknowledged arenas are needed

As we enter 2011, The Livable City project comes to an end. It has resulted in around 30 publications documenting factors that contribute to success and obstacles that may prevent it. The publications are available in Swedish for download at the Trafikverket website (www.trafikverket.se/dengodastaden). There are several types of organisation of a temporary nature whose purpose it is to promote knowledge relating to urban development. An instance of one such is the Delegation for Sustainable Cities. There is a risk that the knowledge and expertise that has been acquired disappears once the project is over or organisations are wound up. Instead the knowledge and expertise ought to be managed and

developed on an ongoing basis. For this reason, suitable permanent and active arenas are needed at national, regional and local level.

No shortage of candidates for a national arena

Boverket and the Swedish Association of Local Authorities and Regions are responsible for compiling instances of experience gained from working on urban development matters. There are also other authorities and agencies that have an interest in urban development issues. Some of these are, for instance, the Swedish Energy Agency, which is running the Sustainable Municipi-

pality project, the Swedish National Heritage Board, the Swedish Civil Contingencies Agency, Trafikverket, and others. There are also professional and interest organisations such as the Swedish Association of Municipal

Engineers, the Swedish Society for Town and Country Planning, and the Swedish Association of Architects. The Association of Swedish City Centres is an organisation in which city centre associations work together.

Summary

The scope and significance of urban development issues requires a unitary recognised forum – an “institutionalised” arena that will present and discuss new research results and examples of interesting practice on an annual basis.

No clear-cut regional arena

During our work on The Livable City project, we felt the lack of any recognised arenas for discussing regional development issues. The reason for this is that there is no tradition of dealing with locations on a cooperative basis, or of cross-boundary development, etc. The regional development plans are not “physical” enough, the county transport plans are too narrowly focused on infrastructure measures, and the plans for public transport provision are too preoccupied with timetab-

ling. Though there are exceptions, our experience has been unequivocal – the relationship between the development of transport links and building development cannot only be discussed in the context of specific projects. The system analyses that preceded the national transport plan for 2010–2021 resulted in some good experience being acquired, and the new proposal for planning systems for the transport sector emphasises the role of the regions

Summary

A new arena is needed for regional development planning to facilitate ongoing dialogue about the interplay between transport systems and urban development at regional level.

The municipality - a dedicated arena

It is the intention of Trafikverket and the municipalities that they should come together early on in the planning process. If these meetings are to bear fruit, they cannot be just project-oriented, which is currently one of the problems. In the previous chapters we have shown how the processes can become more successful in these

respects. Nevertheless, it is important to create a forum for the general development of the various population centres – a meeting place that will also be accessible by ordinary citizens and the media, and which will be able to provide information on general economic, social and environmental development trends that influence urban development

Summary

The work on the visions of urban development for the three cities has shown a way ahead for the future. The various meeting frameworks should be developed further and should include representatives of state bodies, transport sector, etc. This will then become the municipality's arena for urban policy dialogue.

More in-depth education and training

The experience of the Livable City project is that professional process managers are needed to run complex urban development projects. The Livable City project has therefore proposed a supplementary training programme for people already in employment. It is important that the training should be available for a range of professions. Our experience from the project is that though the same terms and concepts may be used, different professions understand them in different ways, and this makes the planning process more difficult or slows it down. Those involved have to learn to speak the same language and more clearly acquire a shared knowledge as to the factors that contribute to the success of beneficial urban development projects..

Internal development

The evaluation of The Livable City project indicates that committed project managers and joint initiatives between the central administrations and the communities involved do not always impact on every corner of the organisation. Parts of the organisation will carry on working with old procedures. There is a risk that the iconoclastic insight that the very basis of working methods and forms of cooperation must be transformed stays within the project itself. It is therefore important that the experiences from the project are continued and anchored in the national administrations and the municipalities by becoming established in management systems, the organisation and the “working culture”.

Concluding remarks

Planning and negotiation

The experience of The Livable City project is that planning that takes place on a “business as usual” basis often leads to deadlock or compromises that end up satisfying

none of the parties. The solution is more open processes and the ability to establish common aims and objectives.

Here are some of the challenges:

- To increase the interplay between future building development and investments in new infrastructure, and thereby the resulting synergy effects
- To reduce the environmental impact of traffic
- To increase the rate of investment
- To shorten the lead times in the planning processes.

How can this be achieved during ongoing planning when the project does not acquire any extra “energy” in the form of a development study? One key to this is that planning and financing should be more closely linked. It is important to reach a common position as to what you want to achieve and what the permitted cost is to be. This will lead to negotiating situations that have a clear framework but also generate creativity. The parties may have different interests, but they are united in the view that the investment should be beneficial and add value. The incentive for creativity derives from developing solutions that generate value for all parties involved. This may involve anything from the design and standard of the infrastructure to the possibility of using land and properties in such a way that value accrues via improved accessibility. It is also the case that no one is so disadvantaged by the project that they do not want to see the process carried out to its successful conclusion.

It is important that the parties involved be aware of when negotiation is still ongoing and when planning in accordance with the plan-related processes governed by law is in progress. The negotiation stage provides

both a framework and a set of aims and objectives. The purpose of the rest of the planning process is to identify the technical solutions and take into account different interests and aspects relating to the project. While the negotiations are ongoing, the planning process is suspended. Similar experiences have characterised the Livable City project, especially from work related to the so-called “Norrköping package”.

The formal process is clearly governed by legislation and ensures there is public control. But it does not guarantee any creative solutions – unless there is a set of overriding aims and objectives. In some larger projects this has been solved by the government appointing a negotiator.

Research – for continuing knowledge growth

The experience of The Livable City project is that there is too little current research in the form of models or methods for developing and evaluating the consequences of integrated transport and land use projects. Simply refining the socio-economic calculation method is not

sufficient. As in the case of the Delegation for Sustainable Cities, The Livable City project would therefore like to see research programmes and research environments that can work with additional models or methods that will assess the value generated by complex planning situations or those of urban type. These may be related to major public transport projects, such as high-speed rail links that join regions together, or to new transport systems for entire cities with profound structural impact, such as rail systems that can seriously compete with the car as a means of urban transport (for example, the underground in Stockholm and Gothenburg's tramway initiative).

It is evident that the socio-economic models applied do not deal with the long-term consequences. Using accepted calculation methods, probably none of these rail initiatives would be considered profitable in socio-economic terms. And yet they have been built – because they were necessary for a growing metropolis. The development in the Stockholm region, for example, can be explained simply by looking at the emergence of new transport systems, these being, in order of priority: the tramway, the underground, commuter trains and regional trains. In other words, what is needed is research on the city as a whole and how transport flows can meet requirements of accessibility and attractiveness, as well as deal with the complex environmental questions involved.

Other situations where there is little supporting research involve, for instance, identifying the value accruing when a declined street needs renewing or when a different route is to make way for people to take a stroll. Another important issue for further study is how goods shipments are to be resolved in built-up areas, as is how to establish multi-functional city districts and effective and successful junctions within the built-up area itself. Of importance is also explaining the interplay between building development/development of transport links

and the various social dimensions. Research on safety, public health, equality of opportunity and child-related issues has so far been unable to provide any clear answers that can be translated into rules to be applied in planning and implementation.

Citizens in dialogue

The experience derived from The Livable City project has to a large extent focused on how planners, politicians and public authorities, all having their own duties and agendas, are to achieve better forms of cooperation. We can show that this is in turn related to a new and coherent view of the significance of cities in sustainable development. This requires urban development that is centred on the individual, and this in turn requires that people, the individuals, play an active role.

Can negotiations that provide frameworks and aims and objectives be reconciled with openness and participation? The experience of the citizens who took part in The Livable City project is no different to that derived from other urban transformation projects. Great strength of mind is needed to allow citizens to have their say in the early stages, preferably before the project has acquired any clear form. The tramway extension in Norrköping is an example where the final plan was able to be adopted without anyone appealing against it, thanks to active consultations at an early stage. In Uppsala, representatives of the Sävja/Bergsbrunna district took part in the work to identify a suitable location for a future railway station. This formed part of a highly concentrated process, conducted using what is termed the Charette procedure, where two working parties fleshed out and analysed the consequences of various alternatives which the citizen group was then able to comment on directly. The Charette procedure is a method that demands a great deal of work, but it has proved entirely suitable for resolving dead-end situations and identifying new solutions - as indeed in the Bergsbrunna case.

Open processes involving a great deal of listening and dialogue have shown themselves capable of both overcoming unwarranted concerns and opening up the way for creative solutions. Situations where citizens – mainly claimants – start organising “counter-campaigns” are generally aggravated by media interest. A poorly organised planning process often results in a “media storm”, which then leads to deadlock. Obviously, disruptions caused by new infrastructure can have a negative impact on various groups, but the project can often find solutions that reduce the disruption or compensate those affected, provided there is the time and will to do so.

General and repeated change is difficult for both citizens and the media to take on board. An approach that opens the way to continuous dialogue about where urban development is going is a solution in such cases. Unlike the field of welfare policy that deals with general welfare, urban development is unique to each city. It therefore becomes a real challenge to communicate it clearly. An arena is needed in each and every municipality which is engaged in dynamic urban development

Keep the flame burning!

The Livable City project has focused on showing that various aspects involved in coordinating the planning of

transport and building development are an important basis for sustainable urban development. This basis must be kept constantly alive.

Behind any successful project there is a passionate enthusiast who acts as the driving force. This is an oft repeated truth. But day-to-day urban planning translated into numerous plans and projects cannot be based on individuals who have that burning enthusiasm, nor, indeed, on development projects that have been allocated their own dedicated resources. The flame must instead be kindled in other ways:

- In processes that have the features described above
- Through clear commitment from the political leadership
- Via state planning processes that involve respect for the overall responsibility of the municipalities
- Via a well-organised system for sharing experiences and gathering intelligence in the fields relevant to the project
- In the constant realisation that these projects are aimed at creating conditions that will govern people's lives.





Further information:
www.trafikverket.se/dengodastaden