HLJ 2015

Transport policy in Nordic urban regions – POLISE

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Tools for clarifying transport policies

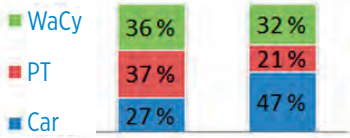
One of the starting point analyses conducted for the purposes of the Helsinki Region Transport System Plan HLJ 2015 is a study on transport policy choices and their impacts in Nordic urban regions. On the basis of a preliminary study carried out in autumn 2012, the urban regions of Helsinki, Stockholm, Gothenburg, Copenhagen and Oslo were selected for the study. The aim was to provide a broad overall view of how transport policy has developed and how it has been integrated with land use in the different urban regions. From the point of view of HLJ 2015, the goal was to find tools for clarifying its transport policy definitions.

The report collates and analyzes information about the goals, implementation and effectiveness of transport policy in Copenhagen, Oslo, Gothenburg, Stockholm and Helsinki. Information has been obtained from written sources as well as interviews of people involved in planning in the cities in question. On the basis of the observations made, the report draws conclusions and makes recommendations for the Helsinki region. The recommendations set out in the report are based on the observations and conclusions made by the authors.

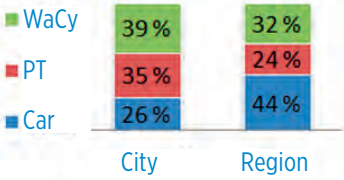
The urban regions studied

The modal splits of walking and cycling, public transport and motoring in the different urban regions served as starting points for the study and also helped to deepen the understanding of the urban regions studied.

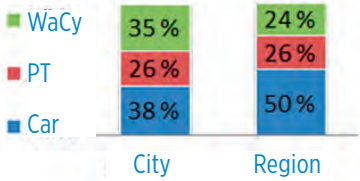
Helsinki – Regional planning and cooperation expanded in phases

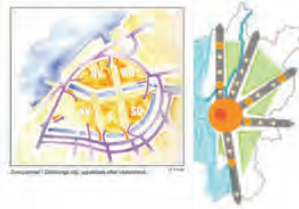


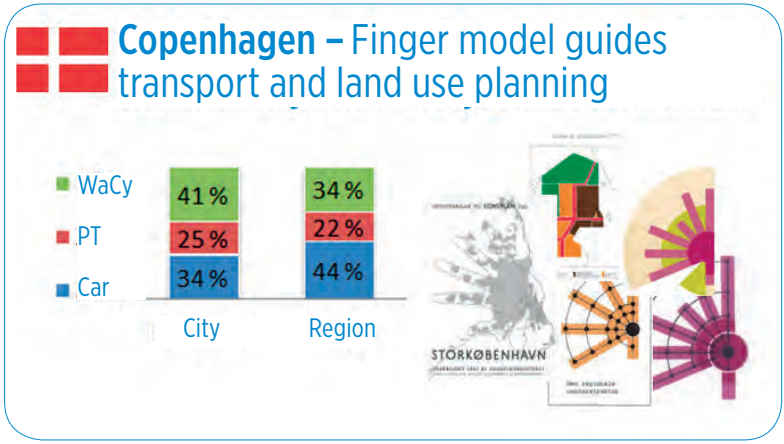
Stockholm – Rapporteurs and big decisions



Gothenburg – From a car city to a public transport city







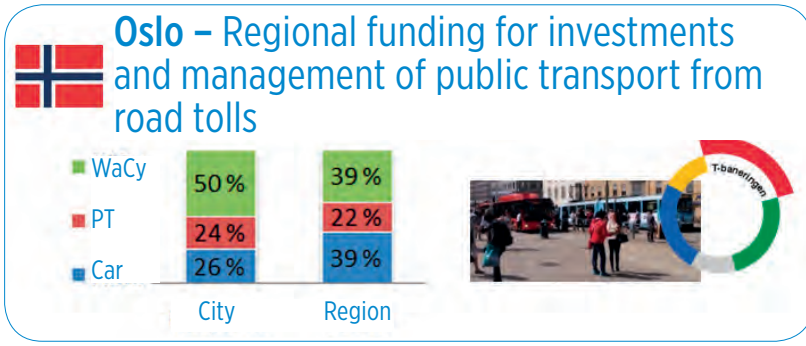


Figure 1. Special characteristics of the urban regions studied in a nutshell.

Strategic land use and transport choices

The choices that have essentially shaped the urban regions studied were made in the 1940s-1960s when radial main roads, rail links and district centers were built. Stockholm and Copenhagen were already at that time developed as metropolitan areas, where the growth of the urban region was accepted and deliberately channeled along rail lines.

Sector-specific land use along main roads has been practiced in all regions. During the post-war decades, the development of the regions was first based on one strong main center (monocentrism). Regional polycentrism started to emerge only in the plans presented in the 2000s, when strong district centers were located at rail hubs. Polycentrism is the most apparent in Copenhagen's finger model, Stockholm's district centers and Gothenburg's K2020 regional structure. In Oslo, a finger model with several district centers is included in the planning alternatives. Helsinki region has practically switched from the finger model to a network structure.

All regions have derogated from the principle of locating land use along good public transport links and urban sprawl resulting in, for example, "carpets of single family houses" has occurred everywhere. This kind of sprawl has perhaps been the strongest in Gothenburg and Helsinki.

Challenges of regional planning and decision-making

The challenges of regional land use and transport planning and decision-making are explained by the prevailing, natural distribution of powers: strong municipalities (taxation, land use planning) and strong State (taxation, legislation, State investments). Regional planning and cooperation, recognized as necessary everywhere but lacking strong power of decision, lie somewhere between these two.

Government decision-making is affected on one hand by a constant need to control public expenditure and on the other hand, by allocation of tax revenues at a national level and related political goals and power relations. In all of the urban regions studied, State participation in the investments needed has been deemed insufficient. Correspondingly, the State has considered the investment needs of the large urban regions too large relative to the available funding.

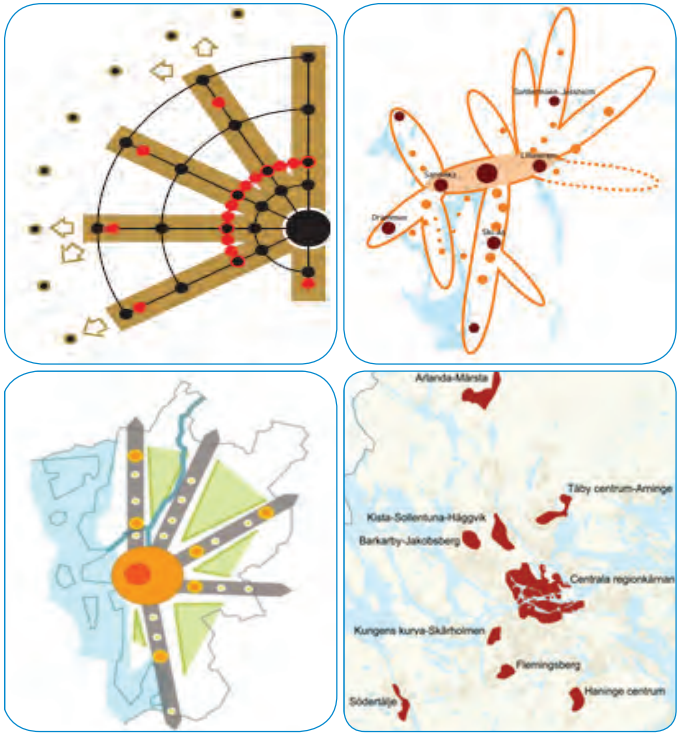


Figure 2. Polycentrism in Copenhagen, Oslo, Gothenburg and Stockholm.

Regional transport plans and packages

The need for regional transport planning and agreements seems to have increased in all of the cities studied during the 1980s when investment needs exceeded the amount of funding available and various competing investment needs and project lists created an unbearable situation. In Stockholm, this period of time gave birth to Dennis package (1992), in Gothenburg Göteborgspaketet and Adelsohnöverenskommelsen (1990), in Oslo Oslopakke 1 (1988), and in Helsinki PLJ (1994).

In all of the regions, some sorts of follow-ups to these plans and agreements have been performed. In Helsinki, regional transport system planning has been established as a continuous process. The Oslopakke process has also been continuous and evolving. In Stockholm and Gothenburg, processes that seem to be established were created at the end of the 2000s. Similar regional transport packages have not been made in Copenhagen, where the major policy definitions are set out in Regionplan.

A process deploying State-appointed negotiators or a committee popular in Sweden can result in bold decisions. However, this kind of decisions may not hold when political power relations change. On the basis of the experiences gained in Stockholm and Gothenburg it can be observed that negotiations have resulted in both proposals that have been successfully implemented and others that have later been overturned. Analyses of the negotiation processes have shown that it is important that the processes have clear goals and mandates, and that planning is carried out on a sufficiently broad basis so that changes in political power relations do not (automatically) result in the policies being overturn.

In Copenhagen, the planning of the main transport networks has been integrated into regional land use planning and there has been no regional transport system planning as such. The State and municipalities have been able to agree on large projects such as the Öresund Bridge, Copenhagen metro and ring tramway. Also, the "beneficiary pays" and "user pays" principles have been applied to the financing of the large projects.

Helsinki, Oslo and recently also Gothenburg have sought wider commitment from the various parties already in the planning phase. This results in bigger compromises than negotiations carried out under a political mandate to ensure that the plan is not set aside in the (future) decision-making. Approval and real commitment of the key decision-makers, in other words, the State and individual municipalities, is crucial. The Oslo packages have been successfully implemented, which is probably due to binding financing agreements between the parties.

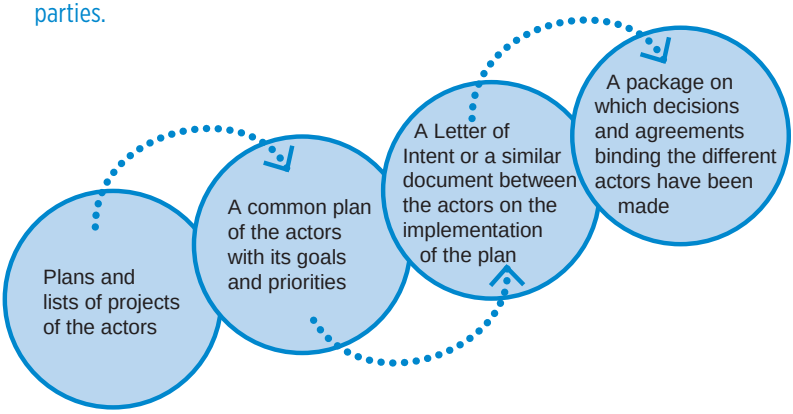


Figure 3. Development phases of transport plans from needs lists of different actors to transport packages binding all parties. A successful transport package covers the basic policies governing the region's land use, housing and transport, measures to develop different modes of transport and funding.

Changing planning goals

The transport system development goals have changed in a similar way in all of the urban regions studied. The general regional development goals of economic vitality and quality of the living environment have underpinned the planning all the while but the viewpoints have considerably changed.

Transport policy goals have significantly changed from emphasizing the smooth flow of traffic in the 1970s and 1980s towards emphasizing environmental goals. Comprehensive planning of and decision-making on the regional transport system as we know it today only started to emerge in the 1990s. At the same time, plans started to emphasize public transport and a wider array of tools more than before.

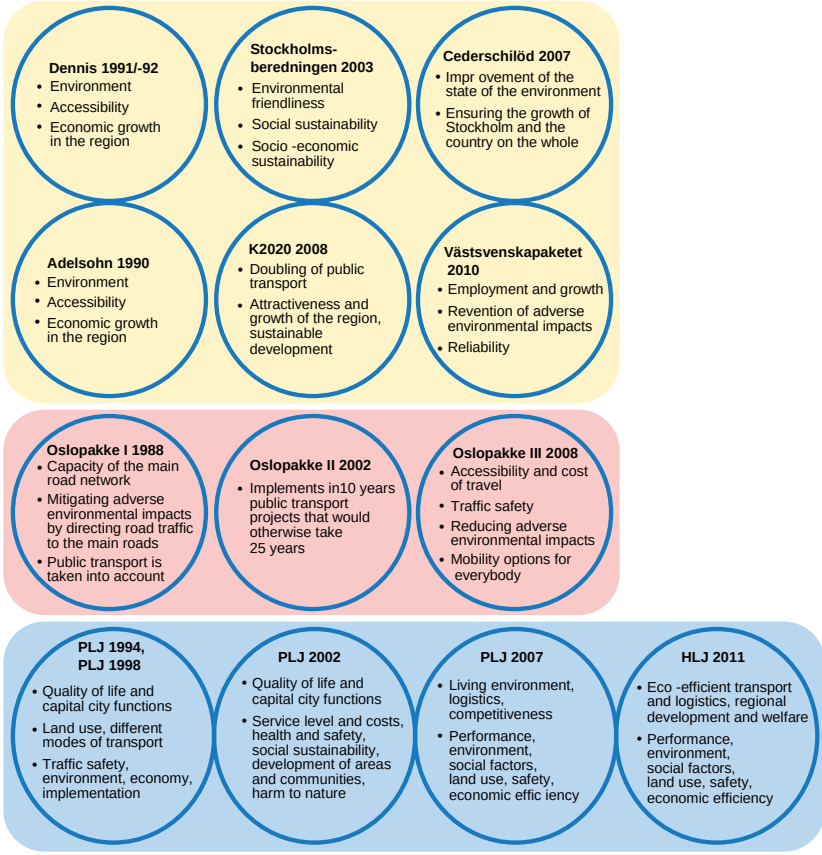


Figure 4. Collection of Nordic transport packages.

For example, public transport is taken into account for the first time in Oslopakke I (1988); the goal of Oslopakke II (2002) is to implement the public transport projects, which would otherwise take 25 years to implement, in 10 years; Oslopakke III (2008) already speaks about prioritization of public transport projects. A concrete example of the change is that good accessibility by public transport is seen as the most important factor for economic growth.

In the 2000s, environmental goals have become increasingly important in all urban regions; this shows also in the implementation programs with particularly strong investments in rail transport.

Regional organization of public transport

Regional organization of public transport has been deemed important in all of the cities studied. The biggest challenge for the municipalities is the division of operating costs. Another challenge is incorporating the big players into the common system. These big players include (State) railway companies and/or city-owned rail line operators.

There are good experiences of regional organization of public transport in Stockholm, Helsinki, Gothenburg and Oslo, where the merging of public transport organizations has resulted in an increased popularity of public transport in particular in the surrounding municipalities.

The expansion of the transport area is topical as the commuting area expands. At the same time the need to broaden the public transport service level increases. Joint ticketing also between commuting areas has been found important everywhere. Sweden and Norway, for example, have set out goals for integrating travel cards, while Denmark has an integrated national ticketing and payment system.

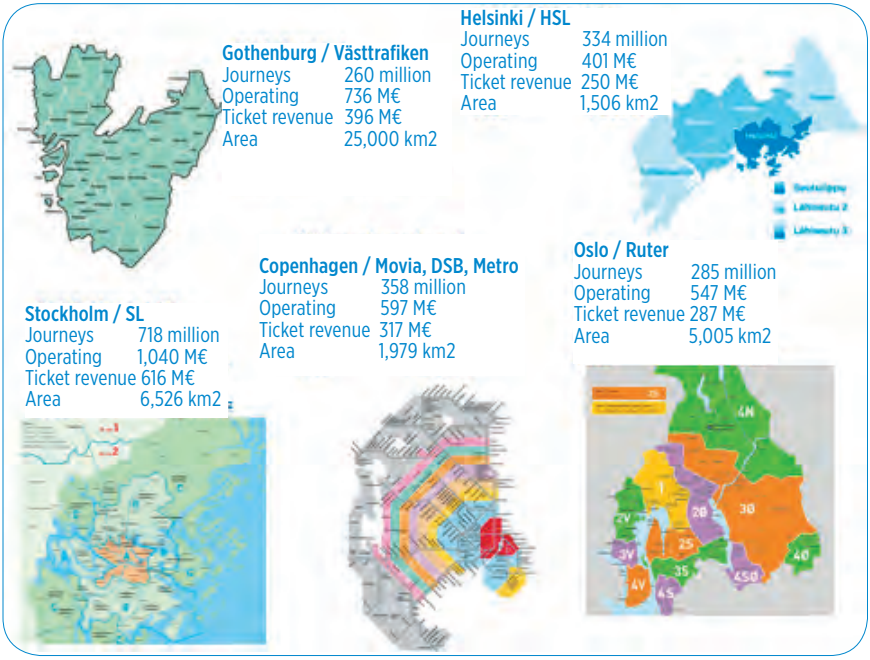


Figure 5. Public transport operators in Nordic urban regions.

Promoting sustainable modes of transport

Increase in car traffic and related problems in city centers, in particular, have been a concern in all cities since the 1960s. All cities have tried to reduce car traffic in city centers and all of the cities studied have had positive experiences of pedestrian zones.

In Gothenburg, the increase in car traffic in the city center ushered in a city center "transport reform" in 1970. Traffic was badly congested and politicians wanted to prohibit through-traffic in the center. This was done through Zonsystemet ("cell principle"), in which the center of Gothenburg was divided into five areas. Only pedestrians, cyclists, public transport and emergency vehicles were allowed to cross the boundaries between the areas. The reform was carried out in 1970 and as a result, car traffic in the city center was halved. This change is considered a trend change because public transport and pedestrian and bicycle traffic were now given priority in the center of Gothenburg.

In Copenhagen, the promotion and “new rise” of cycling started in the 1980s with support from active citizens, which has now resulted also in the development of regional cycling connections. Since 1972, there was a global trend to close tram routes and also the tram route network in downtown Copenhagen was replaced by bus routes in this wave.

Other cities realized the need to actively develop cycling infrastructure and services in the early 1990s. It was partly a question of controlling the increase in car traffic and partly a question of the service level of cycling being deemed poor. The goal of doubling cycling is topical in all of the regions.

City center ring roads

All of the urban regions studied have either constructed or planned ring roads or through roads close to city centers with the idea of removing car traffic from the center. The roads have mainly been built in tunnels.

The Stockholm ring road includes in total four projects: Essingeleden was implemented already in the 1960s while Södra Länken, Norra Länken and Österleden were all included in the Dennispaket in 1992. Södra Länken was not estimated to be socio-economically profitable. However, it was constructed and opened in 2004. Södra Länken cost €975 million, of which the State funded 84% and Stockholm 16%. Norra Länken is under construction and it is presumed to be completed in 2017. The cost estimate of Norra Länken is €1,320 million, the share of State funding is 75%. By contrast, the Österleden project has been frozen and there is strong opposition to it.

Gothenburg's Götaleden is a new section of E45 road close to River Göta. The road section is 3.3km long with 1.5km running in a tunnel. The construction of the road started in 2000 and the road was opened in 2006. The costs amounted to €400 million, of which the State paid 75% and Gothenburg 25%.

In Oslo, Bjørvikatunnel is the last part of the E18 motorway tunnel running through the center of Oslo (Statetens Vegvesen 2013). The 1.1km long tunnel was part of the 1988 Oslopakke 1, the construction started in 2005 and it was opened to traffic in 2010. The project cost €970 million, including the tunnel, roads, pedestrian and cycling paths and bus lanes.

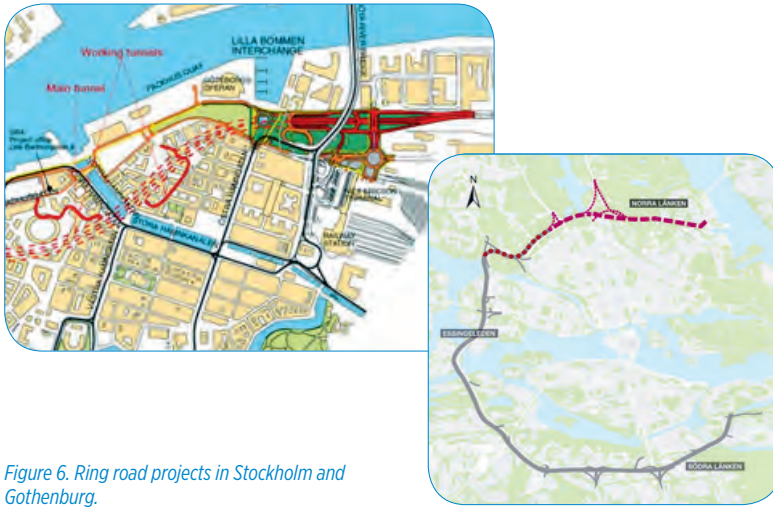


Figure 6. Ring road projects in Stockholm and Gothenburg.

Transport system funding opportunities

The transport system "investment deficit" began to increase in the 1970s ending up in the 1980s in large investment packages whose funding required separate decisions. The challenge is that the transport system investment and funding needs of an expanding urban region are bigger than the amount of funding municipalities and the State are able to budget. Without sufficient funding, development slows down and consequently, the region's development slows down. It is not reasonable to assume that by increasing demands and reasoning the funding for the region's transport system would increase. Thus, we need to introduce other means of funding such as congestion charges and capitalizing on the increase in the value of land in various ways.

Utilizing congestion charges

Congestion charges have proven an effective source of transport system funding and they also provide a tool for controlling traffic volumes, which are both important in terms of the acceptability of congestion charges. However, introducing the charge has been a particularly difficult decision everywhere. In order for the decision to be made, there must be a problem to which the charge is a solution (funding deficit), the positive impacts of the charge are clear (established, for example, through a trial or experiences of other cities), and the revenue is used for the region's transport system (the charge is part of a necessary transport package). Congestion charges ensured the large transport packages in Stockholm, Oslo and Gothenburg.

Capitalizing on the increasing value of land

It is reasonable to capitalize on the increase in the value of land brought by improved transport accessibility. Potential for this is mainly found in completed urban structures. Increase in the value of land has been successfully channeled into transport investment funding in particular in Copenhagen in the conjunction of the construction of the metro line. In Copenhagen, the State and city owned the land which was handed over to a new company established, Ørestad Development Corporation (State ownership 55%, Copenhagen 45%). Most of the investment costs had to be covered by selling lots whose value rose thanks to the metro line, and by operating income when, for example, ticket revenue exceed the operation costs. Real estate tax was also included in the funding in the metro catchment area.

Conclusions and recommendations for the Helsinki region

1. The Helsinki region transport system planning process is important, and the plan and the agreement should be made more binding. The Helsinki region transport system planning process, developed in phases, stands out in the comparison of the cities. It would be possible to strengthen the process so that

the legal obligation of transport system planning is extended to cover the entire Helsinki region. The Letter of Intent on Land Use, Housing and Transport (MAL) is nowadays by nature more binding on the municipalities than on the State. The State could commit itself to the development of the Helsinki region transport system in its report on transport policy.

2. A regional actor should have a bigger power of decision in questions related to transport and land use. In terms of the overall benefit of the region, it would be good if one actor was responsible for transport system planning, organizing public transport and general land use planning as well as steering housing production in the region. The funding of the Citybana commuter train tunnel in Stockholm is a good example of local cooperation extending beyond municipal and even regional boundaries.

3. The regional public transport area should be expanded. Regionally, a reasonable goal is that the area of jointly organized public transport is the same as the strategic, common planning area of land use and transport in the region. The Helsinki region public transport area is narrow in comparison to the other cities studied and it does not cover the functional area of the region. Expansion of the public transport area increases the use of public transport in the neighboring municipalities, in particular, as found in Gothenburg, Oslo and Stockholm.

4**. The role of the State in the development of transport and land use in the Helsinki region should be strengthened both in terms of commitment and integration of national and regional levels.** Transport issues should be closely tied to national transport policy. In practice, this means that urban regions should be treated as separate entities as part of the report on transport policy and other national policy definitions. The active role of the State in the transport projects in Sweden, Denmark and Norway has produced positive results (for example, strengthening the finger principle in Copenhagen, congestion charges in Sweden and road tolls in Oslo).

5. Strategic questions should be emphasized in the Helsinki Region Transport System Plan. Concrete delineation of the key issues the plan is to address should be noted as a starting point for the plan. In decision-making, attention should be paid on big issues and it would be justified to actively discuss also questions of funding in the plan.

6. Extensive data on impacts and effectiveness of measures are needed to support decision-making. Helsinki region has a long tradition of producing data for the preparation of plans based on research. Large numbers of impact assessments are conducted, for example, in Stockholm and Gothenburg but more ex post evaluations should be conducted in all urban regions so that the most could be made of the making of the plans.

More information from the final POLISE report (in Finnish):
http://www.hsl.fi/sites/default/files/uploads/polise_raportti_30.8.2013.pdf

4/2013 HLJ-kiteytys
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