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TØI report 958B/2008

Institute of Transport Economics
Norwegian Centre for Transport Research

Integrating Land Use and Transport Planning: Does Regional Governance Matter?

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Summary:
The aim of the study has been to analyse how a strengthened regional decision level may reduce the fragmentation of land use and transport policy in Norway, and the gap between national goals for an integrated land use and transport planning and the local implementation of these goals. In order to study the role of regional governance in land use and transport planning the research project looks at three observations: the Kristiansand region, the former county of Funen and the Hanover region. The study shows that "regional governance" matters, but it is not a sufficient condition for closing the gap between national policy goals and local implementation of an integrated land use and transport policy.

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Tittel: En samordnet areal- og transportpolitikk gjennom regional samstyring?

Forfatter(e): *Tore Leite; Merethe Dotterud Leiren; Barbara Zibell; Dietrich Fürst; Stephan Loeb; Henning Lauridsen*

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Sammendrag:
Formålet med denne studien er å avdekke hvordan et styrket regionalt styringsnivå kan motvirke fragmentering i areal- og transportplanleggingen, og dermed redusere avstanden mellom mål og resultater ved iverksetting av en samordnet areal- og transportplanlegging. For å vurdere hvordan regional samstyring påvirker de institusjonelle betingelsene for samordning har forskningsprosjektet valgt tre observasjoner: Areal- og transportprosjektet i Kristiansandsregionen, Fyn-regionen i Danmark og Hannover-regionen i Tyskland. Rapporten viser at "regional governance" kan bidra til å redusere avstanden mellom nasjonale mål og lokal iverksetting i areal- og transportpolitikken, men at dette ikke nødvendigvis skjer.

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Preface

This report is a documentation report of the project “Towards an Integrated Spatial Development and Transport Policy: Regional Governance in a Fragmented Sector” funded by The Research Council of Norway. It is part of the research programme “Democracy, Coordination and Regionality (DEMOSREG).” The background for the project is the gap between national goals for integration of land use and transport policy, and what is actually implemented at lower levels in order to avoid urban sprawl, reduce the use of car, and increase the public transport share. The project looks at three city regions in three different countries: the land use and transport project (ATP) in the Norwegian region of Kristiansand, the former county of Funen in Denmark, and the Hanover region in Germany.

Two partners have worked on this project: the Institute of Transport Economics in Norway (TØI) and the Leibniz University of Hanover in Germany. Dr. Tore Leite at TØI is the project leader. He is the main author of this report, and has participated on many of the interviews. His colleague at TØI, Researcher Merethe Dotterud Leiren, has carried out interviews in the Kristiansand region and is the main author of chapter 4. Senior Researcher Henning Lauridsen, also at TØI, has attended interviews in Funen and contributed to the Danish case study. At the Leibniz University of Hanover Prof. Dr. Barbara Zibell managed the project. Her colleagues Prof. Dr. Dietrich Fürst and Dr. Stehpan Loeb from A-Plan have provided information on the German case study. Zibell, Fürst and Loeb have analysed the Hanover region and written a separate report on the German case study. Leite has summarised their findings in chapter 6. Chief Research Sociologist Oddgeir Osland has been responsible for the quality assurance of the report. Camilla Olsson and Trude Rømming have provided secretarial support.

Oslo, June 2008
Institute of Transport Economics

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Summary:

Integrating land use and transport planning: does regional governance matter?

The starting point of this study has been the observed fragmentation of land use and transport sectors in Norway, the gap between national goals for integrated land use and transport planning and the sectoral and local implementation. The hypothesis has been that a strengthened regional decision level could reduce this gap by integrating national goals and local policy decisions. In order to study the role of regional governance in land use and transport planning, the research project has chosen three case studies: the Kristiansand region in Southern Norway, the former Danish county of Funen and the Hanover region in Germany. These three regions designate different models of regional co-ordination in three different planning systems. The study shows that regional governance does matter, but a stronger regional level for land use and transport policy is not a sufficient condition for closing the gap between national policy goals and local implementation of an integrated land use and transport policy. Different regional governance models face several challenges in achieving more sustainable land use and transport planning. Theoretically the study implies that the concept of (network) governance must be further developed in order to include the significance of the coordination mechanisms of hierarchy, network and market when analysing decision-making in multi-level systems.

Problem description

Land use planning which has as its aim the reduction of greenhouse gas emissions from the transport sector, may be seen as a condition for achieving sustainable transport, i.e. reduction in emission from road transport. Planning for reducing automobile dependency in urban areas is strongly related to the planning of urban structures which contributes to a concentration of urban areas, contrary to urban sprawl. Norwegian national guidelines and policy documents emphasise the need for an integrated land use and transport policy, as this may reduce the transport increase, e.g. by encouraging public transport and countering urban sprawl. Several Norwegian studies reveal a considerable gap between national goals for integration of spatial and transport planning and what has been achieved in practice. In other words, there seems to be a gap between insight and what is actually being done. This gap may be explained by the local and sector interests' opposition to the integration principle and their influence on processes where integrated land use and transport planning is being considered, specified and decided on. According to such an institutional view, vertical and horizontal

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segmentation in the transport sector may explain why coordination of spatial development and transport planning does not arise. Vertical segmentation implies that transport authorities on different levels have different responsibilities, while horizontal segmentation means that different sectors at the same level have different responsibilities.

The Norwegian spatial development and transport policies are fragmented, and cooperation is limited. The aim of an integrated spatial development and transport policy is to plan construction in order to decrease the need to travel and to facilitate access to public transport. Municipalities are responsible for spatial planning, parking policy and road pricing; the responsibility for infrastructure is spread across different entities and levels, while the operation of public transport is in the hands of the counties or the Norwegian State Railways. Further, land use and transport planning are dealt with in different sectors. Research suggests that sectors are not suitable for discovering or solving problems which are not already defined within the sector. The institutional framework may, in other words, provide barriers to combining different measures.

Strengthening the regional professional and policy level through reforms in the formal organisational structure may reduce conflicts of interests and fragmentation in the area of integrated land use and transport planning. Research on regional governance therefore seems to be a promising starting point for studying the institutional conditions for integrated land use and transport planning. In this report, the term regional governance encompasses the three coordination mechanisms of hierarchy, network and market.

Research design and methods

Regional governance differs from what we call regional cooperation in the sense that governance is formal, while cooperation may be informal. Regional governance refers to variations in the role of the regional level in the political administrative system, the regional level's available policy instruments, and vertical and horizontal division of competences. In this report we focus on the role of the formal division of competencies.

The concept of integrated land use and transport planning distinguishes between two aspects: *First*, the procedural aspect which refers to the planning and policy process, i.e. to what extent transport and land-use plans and decisions are coordinated, and *second*, the substantive aspect, i.e. what concrete measures (investments, restriction, locations) are introduced. When describing integrated land use and transport planning as a dependent variable, we look at both the intentions defined in national and regional planning documents and the results that are connected with these intentions. Typical examples are the location of new residential areas, location of areas of retail trade (e.g. major new shopping malls), extension of and service improvements to the public transport system and parking in city centres.

The main research issue for the research project is to analyse regional governance (independent variable) in three case study regions, and explore how the organisation of regional governance influences the implementation of the policy goal of an integrated land use and transport planning (as dependent variable).

The case studies can be described as explorative observations based on expert interviews. The observations include a description of the regional governance model, land use and transport planning and an analysis of recent decision processes that comply with or conflict with the goal of integrated land use and transport planning. Then we analysed if and how regional governance influences conditions for integrated land use and transport planning in each of the three regions.

The three cases have been chosen because they represent alternatives to the conventional Norwegian model. They are compared in order to observe how models that are different from the Norwegian planning model for regional governance perform. They also have a stronger regional level than in the conventional Norwegian model. We call the Kristiansand region observation an *ad hoc* local authority cooperation model which is limited to the policy area of land use and transport planning. In the county model of Funen, we observe a strong permanent regional governance model that covers a larger policy area than in the Kristiansand region, and in which the municipalities were integrated in a formal hierarchical coordination system. In the regional model of Hanover, we observe how land use and transport planning is integrated in a larger region which possess extended competencies particularly in land use planning, and which includes several mid-sized municipalities.

Findings from the three observations

The functional model as applied in the **Kristiansand region** is based on a consensus-orientated pilot for regional coordination that is limited to the two areas of transport planning and spatial development. The programme is organised as two projects, the transport project and the land use project, directed by one political committee. The ATP committee is not a legal entity, but is based on a contract. The committee manages the programme and decides on budget priorities. The politicians represented in the ATP committee make decisions on integrated land use and transport policy. They are politicians who represent their municipalities and counties. A coordinator of the National Road Administration Region South contributes as an observer and advises the decision makers.

The role of the ATP programme in the Norwegian planning system could be characterised as a pilot scheme for a strengthened regional level. It is strengthened in the sense that it increased the responsibility of a specific policy (sub-) area and through deliberate coordination between the municipalities and the regional stakeholders. The findings show that the regional governance model has been well accepted and has functioned well in the trial period, and that both the powers and patterns of interaction have changed. Hence, the Kristiansand pilot scheme appears to be an appropriate way of organising the two areas of land use and transport planning, but land use planning is not yet as strongly integrated as the transport project. The ATP programme enabled a new arena for discussion for the municipalities, and the regional stakeholders' perceptions of conflict issues, such as restrictive measures for car transport, may gradually change.

The **County of Funen,** Denmark was chosen in order to analyse the former county model as a regional governance alternative. Through binding land use plans, clear definitions of development zones, combined with national

requirements and guidelines, the region had a strong position in the multi-level administrative system. The regional planning institute prescribed the major conditions for spatial development in the region and the land use decisions in the plan were binding for the municipalities. The Road Administration of the county of Funen was responsible for road planning on the basis of a regional road infrastructure plan. The county level was also in charge of tendering and purchasing public transport at the regional level. The case study of Funen shows that spatial planning and transport planning were highly integrated in the former administrative system and that strong regional governance contributed to the procedural integration. However, the county plan was ambiguous in regard to whether the planning was in accordance with the substantial national and regional goals for sustainable development. It thus seems that the regional governance model did not contribute in reducing demand for transport by countering the spread in urban areas and facilitating sustainable modes of transport and efficient transport services. However, this was due to a "unspoken" multi-level consensus on road investment policy and the wish to maintain and develop the historical pattern of numerous urban zones of the villages.

The regional model, as applied in the **Greater Hanover region**, Germany, was introduced in 2001. It is a strongly formalised, regional political-administrative system for a larger urban area. It covers a wider set of policy areas, among them transport planning and spatial development. In the Hanover region, there has been a continuous, historical emphasis on a regional planning concept that integrates land use and transport planning. The regional plan as such is the main instrument to influence the spatial development at the regional level. There has been strong professional and policy consensus at regional level on the principle of integrated land use and transport planning that has resulted in a clear regional planning concept (decentralised concentration) that has been pursued continuously. The role of the new region has been that of a mediator between conflicting local interests. We observed at least three preconditions for the success in the Hanover region: First, the selfcontained political and administrative will to pursue a regional planning concept. Second, there was clear emphasis on dialogue and co-operation with the local level and third, the region was sensitive to municipality planning priorities.

Institutional conditions for integrating land use and transport policy

The findings in this report show differences in the institutional conditions in the three observations in regard to:

- the role of the regional level in the political administrative system
- division of powers between administrative levels
- policy instruments available at regional level
- division of powers between sectors

The role of the regional level in the political administrative system

The role of the regional level in the pilot scheme in the Kristiansand region was primarily to create a new arena that brought together the formal regional stakeholders. In this new arena, several of these regional stakeholders were included in the cooperation scheme with the participating municipalities, whereas the County Governor was partly included in the project. The transport project "pooled" the different stakeholders with specific interests related to land use planning, public transport and road investments. However, the regional level was not strengthened in regard to the centralised state authorities. Rather, the pilot scheme altered the competencies within the region.

In the former Danish planning model, the regional level was represented primarily by the county which played a crucial role in both regional planning and transport infrastructure planning because the road administration was a part of the county. The regional representatives interviewed in this project confirmed the strong role of the regional level. The county was enabled to undertake coherent planning for the region across the resources and thematic issues, but the local level participation was regarded as important. The main role of the county was that of an intermediary level between local interests and national planning requirements.

The Hanover region, with an autonomous administration and policy representation was in charge of infrastructure planning and operation of public transport. Foremost, the region is powerful in regard to planning, with a continuous tradition of conceptual planning of land use and transport.

Division of competencies between administrative levels

In the Kristiansand region the new division of competencies, as set out in the mandate for the ATP programme, does appear to favour the municipality level, and thereby especially Kristiansand. The interviews also revealed that regional cooperation may weaken the authority of the county to some extent. In the stronger formalised regional governance models, such as Funen, regional planning was explicitly deemed successful as a result of the close collaboration and inclusion of the municipalities in the planning process. In the Funen region, the regional plans were binding for the municipalities, but the municipality views on land use were included when the plans were being drawn up, so that the process may be described as a regionally-mediated consensus. Also in the Hanover region, the regional level sets the conditions for local planning. The cases analysed in this study show that there have been conflicts of interest, but that the region served as an efficient administrative level to find solutions and compromises.

Policy instruments available at regional the level

The strengthened regional level of the ATP programme included decision-making powers on investment and maintenance priorities on municipal and county roads (the transport project) and the ATP committee prioritised how to spend the Public Reward Fund. The land use project aims at influencing the municipalities' land use policy but did not directly influence the municipalities' existing preparatory and binding land use plans. In Funen, the policy instruments available at regional

level were linked with land use planning, road investment priorities and public transport at regional level, where all these competencies were included in the county administration (road investment priorities, designation of development areas within the regional plan and regional public transport (bus)). The wide range of instruments in the Hanover region also appears to be linked primarily with planning competencies. The region thus approves both preparatory and binding land use plans. Furthermore, it has developed the instrument of proprietary development limits.

In all observations, the use of local restrictive measures such as parking policy is largely a municipal responsibility. Hence, the region has no or weak competencies in regard to instruments that can reduce car transport demand in the short to medium term.

Division of competencies between sectors

The study of the Kristiansand region shows that the inter-municipality cooperation on land use and transport planning improves the institutional conditions for integrating land use and transport policies. Most of the contact between the participants is now channelled through the ATP programme and is based on the common budgetary priorities. Furthermore, the ATP programme in Kristiansand is a relatively small organisation with a project secretariat, and the transport project and the land use project are both located within the administrative staff of Kristiansand.

In Funen the strong administrative capacity and the functional integration of both spatial and transport policies at the regional level contributes to an integrated land use and transport policy. We also find that the functional tasks and institutional goals of the respective administrative units are limited and based on the professional roles of administrative units such as the Road Administration's focus on cost benefit and traffic safety. The Funen County administration could thus be interpreted as conservative in the sense that the planning tradition and priorities of the administrative units remain stable.

In the Hanover region, a large administration covering a broad range of sectors could be described as formalised. The institutional conditions for integration of public transport and regional spatial planning have been favourable as institutions at the regional level has been in charge of land use and public transport since the 1960s. Furthermore, public transport and spatial planning are coordinated e.g. through coordination talks and round table talks with the administrative heads and the relevant professionals.

Theoretical implications for the literature on governance and regional governance

In the project we examine governance as an independent variable within an institutional approach looking at the results of decision making. The theoretical starting point for this project was to draw on new research approaches to governance. These approaches focus upon political decision making as a network arrangement where the government structures are not dominant. The literature describes the development of governance as a new pattern of interaction between

government and society, where network-based coordination mechanisms replace a more traditional hierarchical government.

Our starting point has been to look at regional governance as an approach to strengthening coordination in multi-level systems, including different degrees of hierarchical coordination. We thus define governance as more than network governance. When we look at the sector land use and transport planning, new patterns of interaction can be observed. A withering away of government power is far from taking place. In Kristiansand we could speak of a new pattern of interaction between the traditional stakeholders and this governance scheme could be said to be deliberate. We observe a drive to strengthen (Kristiansand and Hanover) and retain a strong regional level (Funen) in order to limit lobbying and proposals from private players.

When we describe regional governance we draw attention to the role of the regional level in integrating different policy areas and administrational levels. Thus, replacing government with network governance does not seem to give an appropriate description of reality. Moreover, strengthening the regional land use and transport policy could simply be seen as an effort to increase political power in other sectors and at the national and local level. Our three models of regional governance improve output by mediating and preventing a lack of consistency between local and national preferences.

Policy formulation, decisions and implementation of urban transport policy and land use planning are highly complex processes, where interest theory, lack of instruments, segmentation of arenas, and external events may need to be taken into account in order to explain specific policy outputs and priorities. Our findings do not imply that a strengthened regional governance is the major explanation for the lack of integration between land use and transport planning. However, regional governance influences the formulation of interests, the multi-level distribution of instruments, the formation of arenas and the response to external framework conditions and events. In this way regional governance may influence the significance of these explanations.

New governance patterns may be the result of an effort of the governing bodies to strengthen goal achievement. Goal achievement is dependent on policy preferences, institutional norms and traditions. From a rationalist viewpoint, there are no good explanations why a federal state or a unitary government may want to delegate its competencies to its member bodies.

Bearing this in mind, why would the level state want to strengthen a regional level? One explanation for this is that regional governance may help in overcoming what Scharpf calls *joint decision traps* in federal systems. If we give this theoretical approach a "twist," we could ask whether regional governance could contribute to avoiding *dispersed decision traps* in unitary, decentralised policies such as in Norway. In federal as well as in unitary states, regional governance may be described as a concept for altering the competences of the regional level in order to enhance coordination between the local, regional and state levels. At the same time it supports national goal achievement by adding to the cooperation across municipality and county borders. In Norway the Public Reward Fund and the introduction of regional administration pilot schemes could be described as a deliberate strategy for increasing regional powers in order to

achieve national targets. This may be described as a way out of a decision trap of fragmented multi-level decision systems.

Conclusion: regional governance matters

The case studies show that the organisation and design of regional governance influence the role and the arenas of the municipalities and regional authorities. The dialogue between the municipalities was strengthened in the Kristiansand region due to the common arena in the ATP committee. The politicians represented their municipalities rather than their parties. In the cases of the Funen and Hanover regions, there is evidence of professional networks that enhance dialogue across municipality borders. However, the cross-border coordination is directed towards the county or the region. In the Funen region, for example, the county had bilateral dialogue and meetings with all municipalities during the preparation of the regional plan. At other times the county acted as a mediator between local interests and professional or national planning guidelines and requirements. In the Hanover region, the region actively acts as a mediator between municipalities with conflicting interests.

All the three models of regional governance perform well as regional coordination schemes due to both the institutional design, and the quality of the dialogue between the stakeholders involved. There has been little evidence that the local level, represented through the municipalities, has less influence, when the regional level is strong.

The case studies in this report show that a strengthening of the regional level may improve policy commitment and professional engineering at the administrative level. In all cases the land use and transport policy is designed as an interaction between the municipal, regional and national level, but with a different stamp: e.g. in the Kristiansand region, with the inter-municipality agreement the influence of the municipalities remains high, even if national policy instruments such as the Public Reward Fund influences the regional governance pilot scheme. Commitment and competencies at the regional level may prove necessary for implementing national goals for integrated land use and transport planning in the municipalities.

However, only the Hanover region has been successful in achieving an integrated land use and transport policy with regard to the concentrated location of housing and retail trade and public transport access. These goals are achieved without major conflicts with the municipalities. One reason for the low level of conflict may be found in the overall legitimacy of the regional level in Hanover: The municipalities that were questioned in this study broadly support the role of the region and highlight at its role as a mediator between the municipalities and competing development centres in the region. Hence, the regional level in the Hanover region can be described as a necessary intermediary level between the national administrative and policy level (goals, instruments and planning requirements), and local planning interests.

To sum up, the report shows that strengthened regional governance could be described as a necessary, but not sufficient, condition for closing the gap between national policy goals and local implementation of an integrated land use and transport policy in Norway (such as urban concentration versus urban sprawl, reduced car use and improved public transport). Regional governance schemes face several challenges in achieving more sustainable land use and transport planning: *First*, the regional level is dependent on sufficient demand and support from the national policy level and on consistent policy instruments. Both in Funen and Kristiansand, ambiguous goals and incentives appear to influence the ability to follow the substantial goals of integrated planning. *Second*, historical patterns of settlement may constrain possible choices. *Third*, the path dependency of institutions at both local and regional level may hamper integration of land use and transport planning . *Fourth*, the range of competencies at regional level may be too limited to "make a difference." With regard to road investment planning this was the case in all the observations.

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Sammendrag:

Samordnet areal- og transportplanlegging: Hvilken betydning har regional samstyring?

Utgangspunktet for dette prosjektet er at areal- og transportplanleggingen er fragmentert, og at det er avstand mellom nasjonale mål og lokal iverksetting av mål for samordningen. Prosjektets hypotese er at et styrket regionalt nivå kan bidra til å redusere denne avstanden ved å integrere nasjonale mål med lokale politiske beslutninger. Vi har sett på regional samstyring i tre regioner: Kristiansand-regionen, den tidligere fylkeskommunen på Fyn i Danmark og Hannover-regionen i Tyskland. Disse har tre ulike modeller for regionalt samarbeid og tre forskjellige planleggingssystemer. Studiet viser at regional samstyring er av betydning for å redusere avstanden mellom mål og det som faktisk blir bestemt, men at et sterkere regionalt nivå er ikke tilstrekkelig. Ulike regionale modeller for samstyring har mange utfordringer knyttet til å nå målet om en mer bærekraftig utvikling innen areal- og transportplanlegging. Teoretisk sett argumenterer vi i prosjektet for at konseptet nettverks-governance bør utvikles videre, for å inkludere betydningen av samordningsmekanismer som hierarki og marked, i tillegg til nettverk, når avgjørelser i flernivåsystemer analyseres.

Problembeskrivelse

Nasjonale retningslinjer og politiske dokumenter framhever behovet for en samordnet areal- og transportplanlegging siden dette kan redusere økningen i transport, for eksempel ved å forbedre kollektivtransporten og motvirke byspredning. Arealplanlegging som bidrar til å redusere utslipp av klimagasser, kan sees på som en betingelse for bærekraftig byutvikling.

Mange norske studier viser at det er en avstand mellom nasjonale mål for samordnet areal- og transportplanlegging og hva som er oppnådd på området. Med andre ord: Det ser ut til å være et skille mellom innsikt og hva som faktisk gjøres. Denne avstanden kan forklares med at lokale og sektorinteresser står i opposisjon til samordningsprinsippet og at disse interessene i stor grad påvirker beslutningsprosesser som berører areal- og transportplanlegging.

En vertikal og horisontal segmentering i transportsektoren kan forklare hvorfor en ikke oppnår en slik samordningen av areal- og transportplanlegging. Den vertikale segmenteringen betyr at transportmyndighetenes ansvar er delt på ulike nivåer, mens horisontal segmentering betyr at ulike sektorer på samme nivå har ansvar innenfor et delområde. En mulighet vil være å styrke det regionale nivået – enten ved interkommunalt samarbeid i en region, ved å styrke fylkeskommunens

kompetanse eller ved å samle denne kompetansen i større regioner. Vi har her valgt å kalle dette regional samstyring.

Norsk areal- og transportplanlegging er fragmentert med begrenset samordning. Denne fragmenteringen gjør det vanskelig å nå målet om å planlegge utvikling og bygging slik at transportbehovet begrenses og kollektivtransport gjøres mer lønnsom. Kommuner er ansvarlige for arealplanlegging, parkeringspolitikk og vegprising. Ansvaret for infrastruktur er spredt på ulike enheter og nivåer. Fylkeskommunene har ansvaret for den lokale kollektivtransporten, mens staten har ansvaret for jernbanetransport. Videre er areal- og transportplanleggingen behandlet i ulike sektorer. Tidligere forskning har vist at sektorer ikke er passende for å løse problemer som ikke allerede er definert inn i sektorens ansvarsområde. Med andre ord kan det institusjonelle rammeverket by på barrierer, når ulike tiltak skal kombineres.

En styrking av det regionale administrative og politiske nivået kan gjøres ved å endre den formelle organisasjonsstrukturen. En slik endring av de institusjonelle rammebetingelsene kan bidra til å redusere interessekonflikter og fragmentering innen areal- og transportplanlegging. Vi har derfor valgt å ta utgangspunkt i regionens rolle i flernivåsystemer for å studere institusjonelle betingelser for samordnet areal- og transportplanlegging. Vi har brukt begrepet om regional samstyring for det engelske begrepet *regional governance* som i vår forståelse omfatter koordineringsmekanismene hierarki, marked og nettverk.

Forskningsdesign og metoder

Regional samstyring skiller seg fra hva vi kaller regionalt samarbeid ved at samstyringen er formell, mens regionalt samarbeid også kan være uformell. Regional samstyring innbefatter et bredt spekter av det regionale nivåets rolle i et politisk-administrativt system, det regionale nivåets virkemidler og den vertikale og horisontale fordelingen av ansvar. I denne rapporten ligger fokuset på den formelle fordelingen av kompetanse og ansvar.

Konseptet samordnet areal- og transportplanlegging skiller mellom to aspekter. For det første, prosedyreaspektet som henviser til planleggings- og politikkprosessen: I hvilken grad transport- og arealplanlegging og -avgjørelser er samordnet. Og for det andre, det substansielle aspektet. Det vil si samordnet iverksetting av konkrete virkemidler (investeringer, restriksjoner, lokalisering).

Når vi beskriver samordnet areal- og transportplanlegging som en avhengig variabel, ser vi på definerte mål i nasjonale og regionale planleggingsdokumenter og resultatene som er knyttet til disse målene. Typiske eksempler er lokalisering av nye boligområder og kjøpesentre, endringer i kollektivtransportsystemet og parkeringsregler i bysentra.

Hovedformålet med dette prosjektet er å analysere regional samstyring (uavhengig variabel) i tre regioner, og finne hvordan organiseringen av regional samstyring virker inn på iverksettingen av målet om en samordnet areal- og transportplanlegging (avhengig variabel).

Rapporten kan beskrives som beskrivende observasjoner basert på informasjonen fra intervjuer med politikere og administrasjon i regionene. For hvert case gis en

beskrivelse av hvordan regional samstyring er organisert, areal- og transportplanleggingen og en diskusjon av prosesser som legger føringer for avgjørelser som er i overensstemmelse eller i konflikt med overordnete mål. Deretter ser vi på om og hvordan regional samstyring påvirker betingelsene for en samordnet areal- og transportplanlegging i hver av de tre regionene.

De tre regionene er valgt fordi de representerer alternativer til den ordinære norske modellen for areal- og transportplanlegging. De er sammenlignet for å kunne si noe om hvordan regional samstyring, som er forskjellig fra den konvensjonelle norske virker, og hvilke effekter de ulike modellene har. De har også et sterkere regionalt nivå enn hva som vanligvis er tilfelle i Norge. Vi kaller Kristiansand-regionen en *avtalebasert* myndighetsmodell som er begrenset til areal- og transportplanlegging. Fylkesmodellen til Fyn har et sterkere, permanent nivå som har flere ansvarsområder enn det regionale nivået i Kristiansand-modellen. I Hannover-modellen er areal- og transportplanlegging samordnet i en større region som har utvidet ansvar, spesielt innenfor arealplanlegging, og som inkluderer mange mellomstore kommuner.

Funn fra de tre casene

Modellen som er utprøvd i Kristiansand-regionen er basert på en konsensus-orientert samarbeidskontrakt om areal- og transportplanlegging mellom kommuner og fylkeskommuner. En styringskomité leder dette prosjektet og består av lokale politikere. I tillegg til politikere fra de deltakende kommunene og fylkeskommunene deltar en representant fra Statens vegvesen Region Sør som observatør og rådgiver. Vi har kalt denne funksjonelle samarbeidsmodellen for avtalemodellen, ettersom samarbeidet bygger på interkommunalt samarbeidsavtale og begrenser seg til områdene areal- og transportplanlegging.

ATP-prosjektets har styrket det regional nivået på den måten at det politiske ansvaret for areal- og transportplanlegging er samlet i samme enhet: ATP-utvalget. ATP-prosjektet har skapt en ny arena for diskusjon blant de regionale beslutningstakerne fra kommunene og fylkeskommunene. Foreløpig har man kommet lenger innen transportplanleggingen enn i arealplanleggingen. Dette kan forklares med at transportdelen har mer ressurser enn arealdelen, og mens førstnevnte har forlenget prøveperioden, er ikke arealforsøket avsluttet enda. ATP programmets arealprosjekt utarbeider en regional arealplan hvor de to fylkeskommunene i Vest- og Aust-Agder deltar sammen med kommunene. De respektive fylkeskommunene kan deretter gi planen status som fylkesdelplaner. ATP-prosjektet har skapt en ny arena for diskusjon blant de regionale beslutningstakerne fra kommunene og fylkeskommunene.

Det andre eksemplet på regional styring er den tidligere fylkeskommunen Fyn i Danmark. Vi har kalt denne dette for fylkesmodellen[1]. Den regionale planen som ble vedtatt i 2005, bestemmer – og begrenser - hvilke områder som kommunene kan legge ut nye boligområder (byutviklingssoner) og planene legger føringer på lokalisering av handel i regionen. Kombinert med nasjonale krav og retningslinjer, hadde regionen (fylkeskommunen) dermed en sterk posisjon i forhold til både kommunene og staten. Vi har kalt denne dette for fylkesmodellen.

[1] Denne opphørte etter regionaliseringsreformen som trådte i kraft 1. Januar 2007.

Det regionale planleggingsinstituttet bestemte med andre ord hovedlinjene i arealplanleggingen i regionen, og bestemmelsene fastsatt i planene var bindende for kommunene. Samtidig har fylket ansvar for å ivareta nasjonale krav og retningslinjer og for å formidle og konkretisere disse retningslinjene i forhold til regionplanen. De tidligere fylkeskommunene i Danmark hadde derfor en sterk posisjon i forhold til både kommunene og staten. I tillegg var vegvesenet i Fyn en integrert del av fylkeskommunen og fylkeskommunen var, som i Norge, ansvarlig for kollektivtransporten på regionalt nivå.

Fyns fylkesplan hadde imidlertid motstridende mål i forhold til nasjonale og regionale mål om en bærekraftig utvikling. Den regionale samstyringen på Fyn synes ikke å ha bidratt til å dempe veksten i bilbasert transport. Dette begrunnes med en konsensus rundt behovet for veginvesteringer for å bedre framkommeligheten og ønsket om å opprettholde det historiske mønsteret med et høyt antall landsbyer.

Dagens modell for regional samstyring i Hannover-regionen i Tyskland ble innført i 2001. Dette er et strengt formalisert politisk-administrativt system for et større byområde. Regionen har et stort ansvarsområde og blant dem er areal- og transportplanlegging. Regionalplanen er hovedvirkemiddelet som styrer den romlige utviklingen på regionalt nivå. Det har vært et sterk enighet om prinsippet samordnet areal- og transportplanlegging blant fagfolk og politikere. Dette har ført til for et klart og langsiktig regionalt konsept for boliglokalisering og utvikling som bygger på prinsippene om en ”desentralisert konsentrasjon. Regionen har fungert som en ”megler” mellom konfliktfulle lokale interesser. Flere betingelser har vært viktige for den samordnede areal- og transportplanleggingen i Hannover-regionen: For det første, den politiske og administrative enigheten og viljen om et regionalt institutt. For det andre har regionen en klar vektlegging av dialog og samarbeid med det lokale nivået og for det tredje, tar regionen også hensyn til lokale interesser i arbeidet med den regionale planen.

Institusjonelle betingelser for samordnet areal- og transportplanlegging

Denne rapporten kartlegger forskjeller i de tre casenes institusjonelle betingelser med hensyn til følgende aspekter:

- Det regionale nivåets rolle i det politisk-administrative systemet
- Fordeling av ansvar mellom de administrative nivåene
- Politiske virkemidler som det regionale nivået rår over
- Fordeling av ansvar og virkemidler mellom sektorene

Det regionale nivåets rolle i det politisk-administrative systemet

Det regionale nivåets rolle i det politisk-administrative systemet i Kristiansand-regionen var først og fremst å skape en ny arena som samlet de regionale beslutningstakerne fra kommuner og fylkeskommuner. Fylkesmannen deltar ikke i prosjektet. Selv om ansvarsfordelingen ble endret mellom aktørene på det regionale nivået, ble ikke det regionale nivået styrket ovenfor det statlige nivået.

I den tidligere danske planleggingsmodellen hvor fylkeskommunen representerte det regionale nivået, hadde denne en sentral rolle både i regional planlegging og infrastruktur, siden vegvesenet var en del av fylkeskommunen. Representantene som ble intervjuet i vårt prosjekt mente at det regionale nivået hadde en sterk og viktig rolle i det nasjonale planleggingssystemet. Fylkeskommunen sto for en sammenhengende planlegging for regionen, men det lokale nivåets deltakelse var også viktig. Fylkeskommunen tok rollen som formidler mellom lokale interesser og nasjonale krav.

Hannover-regionen har stor myndighet på planleggingsområdet ettersom Land Niedersachsen ikke legger føringer utover å bestemme lokalisering av regionens hovedsentra. Hannover regionens innflytelse er styrket ved at administrasjon og politikere har vist vilje til å bruke sine virkemidler innen planlegging for å fremme en langsiktig samordnet areal- og transportpolitikk. Det regionale nivået har også ansvaret for både infrastruktur-planlegging og kollektivtransport.

Fordeling av ansvar mellom administrative nivåer

I Kristiansands-regionen har kommunene som deltar i ATP-prosjektet beholdt sin innflytelse på arealplanleggingen i egen kommune. De er gjennom deltagelse i arealprosjektet også med på å bestemme innholdet i den regionale arealplanen. Samtidig synes innflytelsen deres på transportpolitikken å ha økt, da de nå er med på å bestemme kollektivtransportforbedringer finansiert av belønningsordningen.

I den mer formaliserte modellen på Fyn integreres kommunene i prosessen med å utforme den regionale arealplanen som så blir bindende for kommunene. Fylkeskommunene har en viktig rolle i denne prosessen hvor det blir planrammene for kommunen blir fastlagt. Også i Hannover-regionen setter det regionale nivået betingelsene for lokal planlegging. Det har vært interessekonflikter i Hannover-regionen, men regionen har funnet fram til kompromissløsninger gjennom aktiv dialog og ved å utvikle planverktøy som inkluderer kommunene, slik som å sette rammer for egen utvikling av de sentrale deler av regionen.

Virkemidler på regionalt nivå

Det styrkede regionale nivået i ATP-prosjektet bestemmer over midler til øvrige riksveger, fylkesveger og kommunale veger, i tillegg til at det fordeler belønningsmidler for et bedre kollektivtransporttilbud. Arealdelen av prosjektet har som mål å lage en regional arealplan som kan påvirke kommunenes arealplanlegging. Det regionale nivået rår dermed over nye og utvidede fullmakter og har muligheten til å gi en samlet vurdering av prioriteringer. I Norge bestemmer kommunene i tillegg over bruk av vegprising til å finansiere nye investeringer. ATP prosjektet har imidlertid overtatt ansvaret for søknad til transportpakke for Kristiansand og dermed i realiteten fått utvidet sitt mandat ytterligere.

I Fyn er de politiske virkemidlene på politisk nivå relatert til arealplanlegging, veginvesteringer og regional kollektivtransport. Hannover-regionen har en enda bredere palett med virkemidler som først og fremst har sammenheng med planleggingsansvaret og den bindende arealplanen.

I alle casene er parkeringspolitikk kommunalt ansvar. Felles for alle regionene er at de er svake med hensyn til å restriktive tiltak for å begrense bilbruk og de har ikke mulighet til å regulere parkeringspolitikken.

Fordeling av ansvar mellom sektorene

Studiet av Kristiansand-regionen viser at det interkommunale samarbeidet forbedrer de institusjonelle betingelsene for samordnet areal- og transportplanlegging uten at de enkelte deltagerne opplever at de mister ansvar for og innflytelse over sentrale planleggings- og prioriteringsspørsmål. Mesteparten av kontakten mellom aktørene er kanalisert gjennom ATP-programmet. Programmet har et sekretariat på tre personer som holder til i samme lokaler som Kristiansand kommune.

På Fyn hadde det regionale nivået en stor administrasjon for areal- og transportplanlegging. Innenfor fylkeskommunens administrasjon var ansvars- og kompetanseområdene klart definert. Deres rolle var derfor preget av de institusjonelle målene i de respektive administrative enhetene. Eksempler på dette var at fylkeskommunes vegforvaltning la særlig vekt på kost-nytte-analyser og transport sikkerhet i sitt arbeid. Ved utvidelse og etablering av fullsortiments IKEA på Fyn preget spørsmål knyttet til kostnader og avvikling av ny trafikk diskusjon om lokalisering. Administrasjonen kan betegnes som ”konservativ” i betydning av at planleggingstradisjonen og prioriteringen til involverte aktører forble stabile. Det regionale nivået ville ikke utfordre kommunen og vice versa.

I Hannover-regionen har en stor formalisert administrasjon som dekker et bredt spekter av sektorer. Fordeling av ansvar og kompetanse mellom sektorene har er en del av den regionale organisering av areal- og transportpolitikken. De institusjonelle betingelsene for samordnet areal- og har vært til stede siden 60-årene. Dette kan sies særlig å skyldes at regional planlegging er en viktig del av det regionale nivåets virkeområde. Videre er kollektivtransporten samordnet med arealplanlegging blant annet gjennom koordinering av diskusjoner med de administrative lederne og eksperter på området.

Teoretiske implikasjoner for litteraturen om governance

I prosjektet ser vi på samstyring som en uavhengig variabel innen en institusjonell tilnærming som undersøker resultatene av beslutningsprosesser. Det teoretiske utgangspunktet er ulike teoretiske tilnærminger til samstyring. Samstyring er ofte beskrevet som nettverks-governance, hvor hierarkiske strukturer spiller en liten rolle og governancebegrepet brukes ofte til å beskrive, enten normativt eller deskriptivt, det fenomenet at hierarkiske styringsformer svekkes eller delvis forsvinner.

I dette prosjektet er grader av hierarkisk styring innen samordnet areal- og transportplanlegging i flernivåsystemer beskrevet. Vår definisjon bruker en videre definisjon av governance enn koordinering gjennom nettverk.

Litteraturen om nettverksbaserte koordineringsmekanismer beskriver utviklingen av samstyring som nye mønster av interaksjon mellom myndighetene og samfunnet. Her erstatter nettverksbaserte koordineringsmekanismer mer tradisjonell hierarkisk styring. Når vi ser på sektoren for areal- og

transportplanlegging ser vi nye interaksjonsmønstre. Vi finner ikke at hierarkiske styringsformer svekkes eller forsvinner. I Kristiansandsregionen finner vi samstyring som er blitt til gjennom en frivillig dialog mellom de ulike aktørene på tvers av sektorer og forvaltningsnivå for målrettet å etablere nye styringsformer (deliberate governance). I Kristiansandsregionen og i Hannover-regionen forsøker man å styrke det regionale nivået, mens man på Fyn forsøker å holde et sterkt regionalt nivå for å kunne møte lobbyister og private søknader med styrke.

Politikk formuleringer, avgjørelser og iverksetting av bytransport og arealplanlegging er imidlertid komplekse prosesser. Interessekonflikter, mangel på virkemidler, fragmentering av ansvarsområder og eksterne hendelser kan forklare resultater og prioriteringer. Et sterkt regionalt nivå er i seg selv ikke tilstrekkelig å at nasjonale mål samsvarer med lokale, men det påvirker avstanden. Et styrket regional nivå påvirker betingelsen for interesseformulering ved at fordelingen av virkemidler endres, nye arenaer oppstår og på eksterne rammebetingelser og hendelser. På denne måten kan, men må ikke, styrket regional samstyring bidra til å nå de nasjonale målene om en samordnet areal- og transportplanlegging. Hvis måloppnåelse er avhengig av politiske preferanser, institusjonelle normer og tradisjoner hvorfor skulle staten ønske å delegere ansvar til lavere nivåer. En styrket regional areal- og transportplanlegging kan sees på som et forsøk på å øke den politiske makten ovenfor nasjonalt og lokalt nivå. Dette kan føre til mer konsistens mellom lokale og nasjonale preferanser.

En forklaring på dette kan være at en ny ansvarsfordeling kan bidra til å løse problemer som det nasjonale nivået står ovenfor. Regional styring kan i så fall bidra til å finne en løsning på hva Fritz Scharpf kaller *"joint decision traps"* i føderale systemer. Vi gir denne teoretiske tilnærmingen en vri ved å spørre hvordan regional governance kan bidra til å løse *"dispersed decision traps"* i en desentralisert enhetsstat som Norge. I føderale så vel som enhetsstater kan regional governance beskrives som et konsept for å endre kompetansen på regionalt nivå for å forbedre koordineringen mellom lokalt, regionalt og nasjonalt nivå. Samtidig kan regional styring støtte nasjonal måloppnåelse ved å bidra til økt samarbeid på tvers av kommunegrenser.

Konklusjon: Regional styring bedrer muligheten for en samordnet areal- og transportplanlegging

Case-studiene viser at organiseringen på regionalt nivå (regional governance) har stor innflytelse både for rollen kommunene får og for arenaene hvor kommunene og de regionale myndighetene møtes. Dialogen mellom kommunene ble styrket i Kristiansand-regionen på grunn av en felles arena hvor politiske avgjørelser ble tatt. Også på Fyn og i Hannover-regionen eksisterer profesjonelle nettverk som styrker dialogen på tvers av kommunegrensene. Samordningen finner sted innad i fylkeskommunen eller i regionen – og ikke på et tilleggsnivå som styringsgruppa i ATP representerer. På Fyn har fylkeskommunen bilaterale dialoger og møter med alle kommunene ved forberedelsene av den regionale planen. Fylkeskommunen opptrer som en "megler" mellom lokale politiske interesser og profesjonelle eller nasjonale planleggingsretningslinjer og -krav. Dette er oppnådd uten store konflikter med kommunene. En forklaring på det lave konfliktnivået er at det regionale nivået har høy demokratisk legitimitet og samtidig høy aksept som

faginstans. I Hannover har regionens prosessorienterte planlegging vært viktig for å inkludere kommunene i planleggingen. Representanter i kommunene påpeker også at denne har en viktig funksjon som "megler" mellom kommunene og deres konkurrerende ønsker om utviklingssentre. I tillegg til direkte kontakt med fylkeskommune, arrangerer de fagnettverk og fagsamlinger som skaper felles problemforståelse.

I alle de tre regionen har kommunene behold innflytelse ved at disse både kan påvirke de regionale beslutningene og ved at det gis rom til den kommunale planleggingen. Areal- og transportpolitikken utformes i samspill mellom det statlige, regionale og kommunale nivået, men med ulikt preg. I Kristiansand gir det interkommunale samarbeidet stor innflytelse til kommunene, men statlige føringer påvirker resultatene. Særlig har belønningsordningen påvirket forvaltningsforsøket. Men staten er også førende i forhold til planlegging av stamvegnettet som har stor betydning for den regionale transportutviklingen.

Kan økt regional styring bidra til å redusere avstanden mellom nasjonale mål og lokal iverksetting av en samordnet areal- og transportplanlegging? I en norsk kontekst kan et styrket regionalt nivå beskrives som nødvendig, men ikke som en tilstrekkelig betingelse. Regionalt samarbeid er ingen tilstrekkelig resept for å sikre en mer bærekraftig by- og transportpolitikk. Eksemplene fra Kristiansand, Fyn og Hannover kan gi innspill til hvordan ulike modeller for regional samstyring kan fungere. Imidlertid er det ingen av modellene som peker seg ut som mest effektiv. En vurdering av regionalt samarbeid bør derfor diskuteres innenfor en konkret kontekst og ulike regioner kan ha ulike behov for institusjonelle endringer.

Vi står overfor en rekke styringsutfordringer i arbeidet for en mer bærekraftig areal- og transportplanlegging. For det første er det regionale nivået avhengig av tilstrekkelig etterspørsel og støtte fra det nasjonale nivået og konsistente politiske nasjonale virkemidler. Både på Fyn og i Kristiansand-regionen ser motstridende mål og insentiver ut til å påvirke muligheten til gjennomføre større endringer. For det andre spiller historiske bosettingsmønster en rolle i planleggingen, noe som kan bidra til å redusere samordningen. Man ønsker ikke å gå tilbake på eller snu tidligere avgjørelser. Dette oppleves som å være "dyrere" enn å fortsette den historiske utviklingen med små forbedringer. For det fjerde er spekteret av ansvarsområder på det regionale nivået sett i forhold til statlig virkemiddelbruk avgjørende for om regional samstyring kan bidra til endring. Det er for tidlig å se resultater fra Kristiansand regionen, men det regionale perspektivet har medvirket til ny diskusjon om restriktive tiltak og vegprising.

1 Research question and hypothesis

The aim of this project is to identify better ways of organising the current policy on integration of land use development and transport in Norway. The "Integrated Land Use and Transport Policy" is recommended in political guidelines for a more sustainable urban environment. In reality, however, spatial planning and transport planning remain separate. In order to identify better ways of integrating the two areas, we consider whether "new" and different forms of regional governance contribute to the implementation of integrated land use and transport planning in accordance with the national and regional goals for sustainable development e.g. contribute to a land use and settlement structure that reduces the demand for transport by concentrating service functions and housing, and facilitating sustainable modes of transport and efficient transport services.

If different ways of organising and coordinating actors at regional level contribute to this goal, how do they contribute? This will be discussed in our project, which investigates different forms of regional governance in three case study areas, the Kristiansand region in Norway, the County of Funen (Fyns Amt) in Denmark and the Greater Hanover region in Germany.

Figure 1 on the following page shows the project's research design. We will analyse to what extent and how regional governance (independent variable) influences the gap between the intentions of integrated land use and transport planning and the results (dependent variable). The forms of regional governance may affect intentions as well as results in a way that reduces the gap. Subsequently, the results of our analyses of Kristiansand, Funen and Greater Hanover will be compared to the traditional Norwegian model of spatial planning and transport policy organisation (see chapter 3).

1.1 Land use, transport demand and GHG emissions

Emissions of greenhouse gases (GHG) from person transport can be described as a function of *travel distance*, *travel frequency,* choice *of transport mode,* and *emissions from vehicles*.

Transport and land-use planning may affect GHG emissions in various ways: *First*, location of settlements and commercial areas will directly affect the demand for transport (*travel distances*, *travel frequencies*) and thus the amount of emissions. Studies of alternative location show such effects on transport demand. *Second,* the spatial structure will affect the conditions for a competitive public transport network and not least the proportion of pedestrian and bicycle transport (*choice of transport modes)*. To achieve a shift towards an increased proportion of public transport and non-motorised transport, the relative transport costs and comparative time consumption are crucial. A spatial structure that allows high frequencies and a dense public transport network will thus reduce travel comparative time consumption when choosing public transport. *Third*, land use

planning encompasses the planning of road infrastructure that directly influences the conditions for use of private cars. Constructing new roads and increasing road capacity are thus important parameters for the choice of transport modes, mainly due to reducing the time used when choosing to travel by car.

Reducing the time unit per driven kilometre will also increase the travel distance that is perceived as acceptable, and will:

- affect the choice of urban sprawl and car-dependent travel patterns
- initiate further increased automobile density.

The amount of person kilometres by travelled by car is directly connected with automobile density in two ways: *First*, high car ownership rate amongst the population will directly affect the probability of cars being a likely transport mode choice. *Second*, high car density/ownership rate will affect the marginal costs of alternative transport modes, favouring the use of cars.

Land use priorities and road infrastructure investments[1] affect the physical conditions directly since:

- land use structure determines travel distances and frequency
- road infrastructure priorities affect modes of transport
- road infrastructure affects the frequency and availability of public transport
- and the comparative travel speed affects the choice of alternative modes of travel

Land use planning aimed at reducing greenhouse gas emissions from the transport sector may be seen as an absolute *condition* for achieving a sustainable reduction in emissions from road transport.

Planning to reduce automobile dependency in urban areas is strongly related to the planning of urban structures that could be described as the opposite of urban sprawl. In some European countries, a trend towards concentrated development and transforming industrial sites can be observed (Statistics Sweden, 2002; Statistics Norway, 2005 and 2007). However, previous trends towards urban sprawl have resulted in dispersed residential areas – especially close to larger cities (Engebretsen, 1993; Larsen & Saglie, 1995). In some countries this tendency to urban sprawl is an ongoing process (Breheny, 1992; Siewerts, 1999; Schwedler, 1999; Damsgaard & Olesen, 2000). Policy measures could be designed to influence one or more of the driving forces that have generally contributed to urban sprawl, such as economic development at national/regional level, real estate prices, automobile density and demographic patterns.

[1] For a comprehensive review of research on induced travel and changes in transportation, see Noland & Lem, 2002)

1.2 The gap between intentions and results of integrated land use and transport planning

Several Norwegian studies (Spangen, 1995; Nielsen et al, 2000; Moen & Strand, 2000; Langeland, 2002) reveal a considerable gap between national goals for integration of spatial and transport planning and what has been achieved in practice. A study of effects of the national guidelines on integrated land use and transport policy (Moen/Strand 2000) concludes that the guidelines have had only a minor impact on the implementation of the policy area. In other words, there seems to be a gap between intentions and what is actually being done.

There is broad political consensus, as described in Norwegian national plans and policy documents such as the national guidelines for integrated land use and transport planning (Miljøverndepartementet, 1993), that there is a need for integrated land use and transport policy, as this may reduce the increase in transport, e.g. by encouraging public transport and counter-acting urban sprawl. The gap between intentions and what has actually been achieved may be explained by the sector interests' opposition to the integration principle and their influence on processes where integrated land use and transport planning is being considered, specified and decided upon (e.g. traffic safety and improved traffic flow, and location of new housing in the municipalities). Another explanation is that stakeholders have many interests that are also contradictory.

Other studies (e.g Bratzel, 1999) demonstrate that the gap between intentions and outcome arises from institutional barriers. According to this type of institutional view, vertical and horizontal segmentation in the transport sector may explain why coordination of spatial development and transport planning does not occur. Vertical segmentation means that transport authorities at different levels have different responsibilities, while horizontal segmentation implies that different sectors at the same level have different responsibilities.

Literature on integrated land use and transport policy, Nielsen et al, 2000; Lehmbrock et al, 2005:200-203) argues that there is a gap between intentions/ambitions and results. Moreover, at regional level there is a need for organisational reform in order to reduce conflict of interests and fragmentation of the institutional goals within the area of integrated land use and transport planning. In other words, reform directed towards regional governance may be *one* necessary condition for integrated land use and transport planning. In our context, reforms may be understood as organisational consequences when following up the goal of integrated land use and transport planning. Research on regional governance therefore seems to be a promising starting point for studying the conditions for integrated land use and transport planning.

1.3 Research design

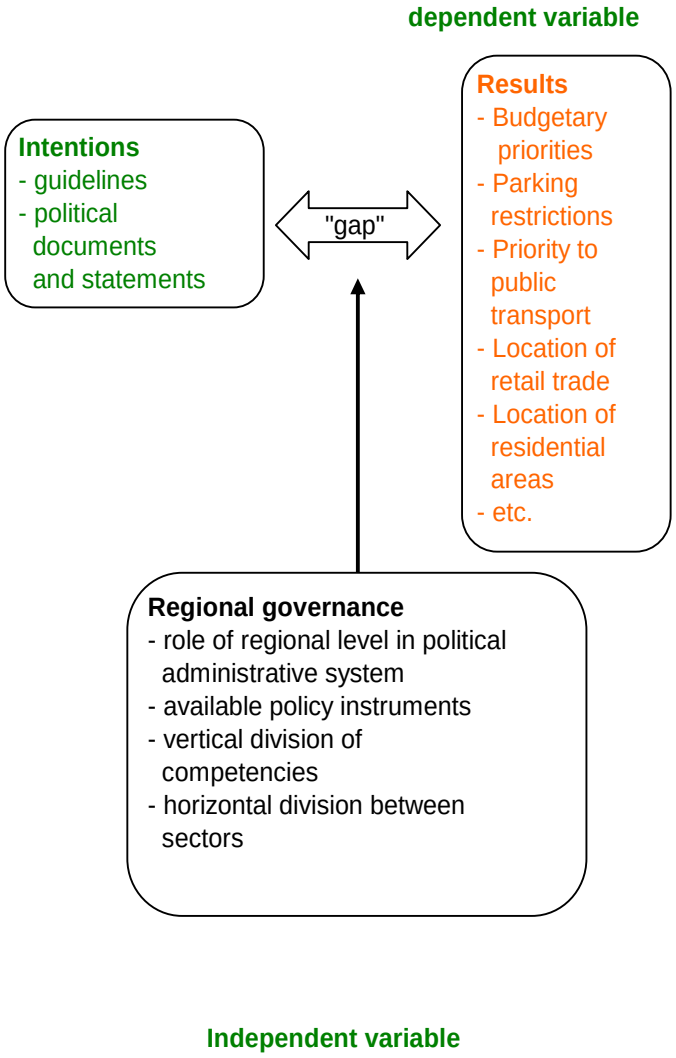
A number of variables may influence the gap between intention and results. Strengthening regional governance is one such variable. Regional governance differs from what we call regional cooperation in the sense that governance is formal, while cooperation may be informal. In our case studies, we expect to find, among other cooperative mechanisms, informal networks as well as formal networks that constitute models for regional governance. Regional governance refers to variations in the power of the regional level in the political administrative system, the regional level's available policy instruments, and vertical and horizontal division of competencies. According to this, informal network are not elements of 'governance'. We therefore need a term that includes informal cooperation and define this as "regional cooperation". Both regional governance and the element of informal cooperation (in regional cooperation) may contribute to reducing the gap in Figure 1. The institutional variables that we have included are, however, connected to the variation related to the formal policy coordination and the competencies of the regional administrative level in this coordination.

The importance of informal cooperation as a contributing factor to integrating land use and transport may weaken the significance of regional governance as an explanatory factor. We may find that it is not formal cooperation alone, as politically determined, that is most important at the regional level. In order to confirm – or refute – our hypothesis, alternative explanatory variables will be discussed (see section 2.6). These variables must be considered with respect to both formal and informal coordination.

Figure 1 below illustrates the type of dependent and independent variables that are studied in this project. The dependent variable of land use and transport policy is related to both intentions and results. The independent variables are related to the variation in the power of the regional level.

The variation in the dependent variable - the gap between intentions and results - can be interpreted and examined in different ways. First, it may be interpreted as a gap between intentions following on from the notions and principles of sustainable development and practice, e.g. to what extent one can observe more restrictive measures on car use, and location policies reducing the demand for car use etc. Second, it may be interpreted and examined in terms of a possible gap between locally and nationally-defined policy goals and practice. In the latter sense, regional policy intentions or goals may be ambiguous or even contradictory to environmental goals. This report includes both interpretations when analysing how different institutional structures at the regional level may contribute to achieving integrated land use and transport planning, and also why this might fail.

Figure 1. 1: Research Design



The concept of integrated land use and transport planning distinguishes between two aspects: *first*, the procedural aspect which refers to the planning and policy process, i.e. to what extent transport and land-use plans and decisions are coordinated, and *second*, the substantive aspect, i.e. what concrete measures (investments, restriction, locations) are introduced. Hence key variables of integrated land use and transport planning are the following:

- procedural integration of land use policy, road policy, parking policy and public transport policy. Thus, in this analysis, we ask how the powers and instruments in these areas are distributed and integrated among the stakeholders in a multi governance setting.
- substantive integration of the different land use policy measures (location of retail trade and residential areas), public transport (budget, priorities, supply), road policy (budget, priorities, increased capacity), degree of restrictive measures for car use (parking policy, road pricing) in order to achieve the substantive goals of reducing transport demand, changing the modal split and reducing individual car transport.

In order to describe integrated land use and transport planning as a dependent variable, we will consider both the aims as set down in national and regional planning documents and the results that are connected with these aims. Typical examples are the location of new residential areas or increased densities of existing areas, the location of retail trade areas (e.g. major new shopping malls), the extension of and service improvement to the public transport system, parking in city centres and the introduction of a better infrastructure for bicycles. In order to analyse the institutional conditions of regional governance as an independent variable, we have looked at some major institutional dimensions that are linked with the formal organisation of the regional level (see figure 1.1).

1.4 Is strengthening of regional governance necessary to improve coordination?

Research into regional governance shows that political systems are confronted with new formalised forms of cooperation and coordination

- across municipal borders
- between the public and the private sectors
- between the national, county and municipal levels

Such new forms of governance are often based on networking and may challenge the traditional hierarchic, parliamentary political decision making system.

In the literature (Benz, 2001; Benz & Fürst, 2003) it is suggested that new forms of regional governance increase the efficiency of governing across different sectors and secure democratic legitimacy in multi-sector, fragmented and complex political systems. This is due to the argument that strengthening regional institutions may counter an unequal allocation of resources in network-based decision making processes. The understanding of governance in this context implies that there may be a combination of the three main policy coordination mechanisms of hierarchy, market and network. Strengthening regional governance could thus be seen as a way of counteracting informal coordination through networks and formal hierarchical coordination from the lower or higher administrative levels, namely the municipalities and the national level.

We use the notion of regional governance to describe the political coordination system at the regional level. In this thesis, we will describe different models of governance (*Steuerungsformen*) at the regional level that encompass elements of hierarchy, network and market coordination. The starting point is to ask whether these forms of regional coordination improve the implementation of environmental goals (*Steueringsfähigkeit*) (Mayntz, 1998).[2]

As mentioned above, new forms of regional governance may facilitate better integration and coordination of land use and transport planning. However, the outcomes of diverse regional governance models may be different (Røisaland et al 2005; Jessop 2002).

[2] This can be translated as "*politische Steuerung*"

In this thesis, new forms of regional governance will be understood as models for governance other that those that - in the current Norwegian political-administrative system- divide political powers and tasks between central government, the counties and the municipalities. The project analyses three different cases – from Norway, Denmark and Germany. Regional cooperation embraces the two areas of land use and transport. The findings will be explorative and limited in scope to these two policy areas. The results from the research will be used to discuss the forms of regional governance that may be applied in a Norwegian context (Leite, Leiren & Osland, 2008).

The choice of the three case studies has been made to observe how models perform that are different from the Norwegian planning model for regional governance. We describe the Kristiansand study as an ad hoc local authority cooperation, limited to the policy area of land use and transport planning, that could be one way of strengthening regional governance. In the county model of Funen, we observe a strong, permanent, regional governance that covered a larger policy area and where the municipalities were integrated in a formal hierarchical coordination system. In the regional model of Hanover, we observe how land use and transport planning are integrated in a larger region with extended powers in land use planning, that covers several mid-size municipalities.

1.5 Hypothesis on regional governance and integrated land use and transport planning

The main hypothesis for this research project is that *strengthening regional governance contributes to reducing the gap between intentions and actual results of a policy that prescribes integrated planning and development of land use and transport*.

There are several reasons for choosing this hypothesis (see Appendix 2). *First*, regional coordination across municipal borders and sectors facilitates integration and counteracts fragmented policy decisions in land use and transport. *Second*, setting up a new regional network of governance may alter the position of the different stakeholders and authorities. *Third*, regional governance structures will extend the responsibilities for the available instruments, such as road pricing and investment decisions. *Four*, regional governance may counteract the disintegration of land use and transport planning as segmented political cycle(s) with different arenas that are only loosely connected. *Fifth*, regional governance may alter the powers of the coalitions covering the political area of land use and transport policy. If this is the case, regional governance will "respond" differently to external occurrences. This may contribute to explaining a shift in policy and policy learning.

In the project we have chosen case studies from regions with strong regional governance coordination, but the institutional framework and imprints of the cases differ. In Section 2.5 we discuss some assumptions about institutional variables in the different models for regional governance in the case studies of Kristiansand, Funen and Hanover.

2 Approach, definitions and methods

The main research issue for the research project is to analyse regional governance (independent variable) in three regional case studies, and explore how the organisation of regional cooperation influence the implementation of the political goal of integrated land use and transport planning (as a dependent variable). This will be done by analysing and discussing the contents of different models of regional governance and how these regional decision models lead to changes in institutional conditions and policy arenas connected to the implementation of integrated land use and transport planning. The case studies can be described as highly explorative observations.

The case studies will include three parts:

1. a description of the regional coordination and governance in each of the three regions
2. a description of land use and transport planning in the three regions, analysing recent decision processes that comply with or that conflict with the goal of integrated land use and transport planning
3. analyses of how regional coordination and governance influence conditions for integrated land use and transport planning

The results of the case studies will be relevant for assessing whether strengthened regional governance could improve the goal achievement of integrated land use and transport planning in Norway. The project will discuss and identify possible changes to the national planning system and organisation that affect, for example, mid size-urban areas comparable with the Kristiansand region, the larger urban area of the Oslo region and competencies in land use and transport planning at the new regional level suggested for Norway.

Using the method of qualitative observations of case studies, we do not expect to find one "ideal" way of organising regional coordination, but rather to describe possible models for different regions. To make sure that our findings from the case studies can be estimated and analysed as a whole, we will define the criteria of integrated land use and transport planning as a dependent variable as used in this project (see Section 2.3). We will choose a set of institutional dimensions to explain regional governance as the independent variable (see Section 2.4). After introducing the three case models for regional governance (section 2.1), we will define our understanding of regional governance in the policy discourse on governance (section 2.2.).

2.1 Kristiansand, Funen and Hanover – three models for regional coordination

The case studies represent three different models for regional governance and all of them differ from the existing governance and planning system in Norway (see chapter 3). The criteria for selecting the case studies were as follows: *first*, the cases should be different in scope, for example, only covering the policy sub-areas of land use and transport planning (as in Kristiansand) or being an integrated part of a strong regional level with several competencies (as in Funen and Hanover). *Second*, the demarcation of the regions should be different, for example, covering a defined commuter area across administrative borders (as in Kristiansand) or following administrative borders (as in Funen and Hanover). *Third*, the size of the regions should differ in order to observe the role of region. *Fourth*, we wanted to analyse regional planning schemes in different national settings (Norway, Denmark and Germany/Niedersachsen) to take the role of regional cooperation in different national contexts into account.

The three models were defined as follows:

1) **The functional model** as applied in the Kristiansand region, Norway. It is based on a consensus-orientated pilot project for regional coordination that is limited to the two areas of transport planning and spatial development
2) **The county model** as applied in the former county of Funen, Denmark. It is based on the standard hierarchic planning governance and planning model that allocated high competencies for transport planning and spatial development to the county level (a new model for a larger merged region was implemented in January 2007)
3) **The regional model** as applied in the greater Hanover Region, Germany in 2001. It is a strongly formalised, regional, political-administrative system for a larger urban area. It covers a wider set of policy areas, among them transport planning and spatial development. The regional model follows an already strong regional coordination through the local association, covering Hanover and the surrounding counties (*Landkreise*). The coordination in the region is thus more biased towards continuity than to introducing an alternative model for regional coordination (Zibell, Loeb & Fürst, 2008).

The main differences between the models need to be considered when formulating hypotheses on regional governance.

The **Kristiansand** region is geographically smaller and its population is more dispersed than in the other case studies. The region comprises municipalities in two different counties but has a mono-central spatial structure similar to the Hanover region. Regional cooperation, which is strongly consensus-orientated, is designed to give the municipalities more influence on decision-making in the steering committee, especially on budget priorities. In the existing Norwegian planning regulations, the regional land use plan has a weak legal status. Implementation of this plan will therefore be highly dependent on the commitment of the participating municipalities and must be decided upon as a county sector plan in the two participating counties of Vest Agder and Aust Agder. The pilot regional planning exercise in this case is aimed at solving

transport and spatial planning issues in a smaller centre-periphery area dominated by the medium sized town of Kristiansand.

The project looks into regional governance in the former county of **Funen** that existed up to the end of 2006. A new structural reform was implemented in Denmark on the 1 January 2007 whereby Funen was merged with other counties into the much larger region of South-Denmark. Another element of the reform was merging the municipalities (from 25 in Funen into 10). The former county level in Denmark had stronger powers than the current county level has in Norway. The Danish county was, among other areas, responsible for regional planning, public transport and county roads. The regional development plan could directly limit the planning autonomy of the municipalities, for example, by limiting the number of urban growth zones, but the regional plan was created in dialogue with the municipalities. The new larger regions have lost most of these competencies. However, public transport will remain the responsibility of the new region. The county of Funen county (population 478,000) was smaller than the Hanover region but larger than the Kristiansand region. The centre-periphery issues in Funen may differ somewhat from the other two cases. The city of Odense in the middle of the Funen island appears to be somewhat dominant, but there are several small and medium sized-towns located around the coast, most of them at a distance of 30-50 km from Odense that are attractive for residential development and that lie within commuting distance in the economic centres of the region.

The **Greater Hanover** region has strong political coordination at a regional level and the population of the region is far larger than the case study areas in Norway and Denmark. The region has a population of 1.1 million inhabitants[3], and consists of 21 municipalities, with the city of Hanover as the regional centre. In Germany, the region has a comparatively important administration and policy level of governance, that covers all national policy areas, and sets the framework for land use planning and public transport coverage at the municipal level. Competencies have been transferred to the region both downwards from the *Länder* (federal state level) and upwards from the local level (*Gemeinde* and *Kreis*)[4].

Due to the differences in geographical context, the three regions above will be analysed and compared using selected geographical segments from Hanover and Funen. This approach allows us to establish case studies with variations in population and population density, transport distance for commuters and transport infrastructure of relevance for inter-regional traffic.

[3] The region is the same size as the region of Oslo.

[4] In this report we will use the German notion of *Land/Länder* to designate the federal state level and *Bund* to designate the decision level of the Federal republic of Germany (Bundesrepublik Deutschland). The Land and Bund thus designate the national level and the *Gemeinde* (municipality) and the *Kreise* (counties) constitute the local level.

2.2 Regional governance as multi-level policy coordination

There is a broad variance in the use and understanding of the notion *region*. In this project we understand the interdependency between activities and institutional competencies in a geographically-defined area. A strengthened regional level in a specific policy area can both imply a centralising/concentration of former local competencies and the deconcentration of national competencies to a regional decision level (Ravlum et al, 2005). The spatial notion of region encompasses a broad spectre of variety, so that a strengthened regional level will cover inter-municipality cooperation in smaller areas such as in the Kristiansand region, but also strong formalised political administrative systems of larger regions such as the Hanover region. In this project we will adopt a functional definition of the region that specifies different governance models in the specific policy area of integrated land use and transport planning – seen as multi-level governance at a sub-national level.

The regional level is defined as the geographical territory that provides a natural spatial boundary with regard to the functional purpose of regional cooperation. Such regions will often, but not necessarily, coincide with the administrative division. In the Kristiansand region, cooperation thus consists of coordination across two counties and several municipalities and also includes national road administration at regional level. Thus, the regional cooperation was institutionalised as an inter-municipal agreement that was extended to involve the two counties. The Road Administration and the County Governor had an advisory function in the land use and transport programme committee. In the Funen and Hanover regions, the regional level is formalised as an independent level of administration with comparatively broad powers in the area of land use and transport planning. At the same time, the regional organisation covers policy areas beyond land use and transport. The research project does not aim to deliver a broad theoretical discussion on regional governance as a broader concept or notion, but to offer information and insights that are relevant for institutional changes in the policy area of integrated land use and transport planning at regional level.

The extension of the policy coordination will vary both according to the size of the region and according to the form of regional governance. For this reason, this analysis has attempted to analyse the conditions for implementing integrated land use and transport planning in three distinctly different models of regional governance (section 2.1).

In governance literature (Rhodes, 1997; Kooimann 1994), “governance” is often defined as a new and distinct coordination through networking which can be laced in between market and hierarchy. The emphasis is on the form of coordination. In our view, however, the understanding of governance as network coordination that began with Rhodes is too narrow to explain regional governance (Rhodes, 1997). We argue that if we limit our attention to one form of coordination – and, more specifically, to network coordination - it will not be possible adequately to analyse sector policies such as land use and transport. Policy instruments at a national level influence decisions at a local as well as a regional level. The reason is that there is a vertical as well as a horizontal dimension to policy coordination.

When groups influence policies at national level, the national level may demand these policies to be implemented at regional and/or local level.[5] Thus, input through network coordination has gone through a hierarchical structure and becomes output at lower levels. This chain may also be directed upwards, from local level to upper levels. In other words, in our terminology, *governance* means *policy coordination,* made up of the different aspects of hierarchy, market and network.

Despite this understanding, the description of regional governance in this report may be placed in the tradition that emphasizes network coordination to describe the institutional framework of policy decision processes. Integrated land use and transport planning is complex, and we find consider important to include networks in a study on how increased responsibilities at regional level may help the implementation of integrated land use and transport policy. The reason is that interactions among states, counties and municipalities with different competencies and tools constitute a complex system of regulations, tax structure, economic transfers, and administrative control. According to Francesco Kjellberg it is impossible to distinguish clearly between state and municipal fields of activities in public policy (Kjellberg, 1991;Kjellberg, 1980). The reason is that interaction is always accomplished through some kind of network coordination and overlap between the administration levels, even when this has not been classified as network governance.[6]

However, when we discuss environmental governance in a multi-level perspective, we will apply a broad analysis of regional governance as an institutional approach that includes regulatory structures combining public and private, hierarchical and network coordination (Regelung[7]) (Mayntz, 2004). Fragmented competencies, diversified policy instruments, conflicting institutional *raison d'etres*, interests and normative goals characterize policy coordination in this context. The term 'regional governance' may be understood as a deliberate concept – it embodies the aim of improving policy coordination between the administrative levels and sectors.[8]

[5] This may be called *meta-governance* which is about how to govern something that is supposed to be self-governed. Referring to the hierarchical structure, our concept of governance also implies *multi-level governance* in which the decisions or aims of one level have consequences for another level.

[6] In other words, network governance is nothing new.

[7] Kickert, Klijn and Koppenjan (1999)et al explicitly define governance as "a directed influence of social processes. It covers all kinds of guidance mechanisms which are connected with public policy processes."

[8] Hence this can be described as a meta-governance concept

2.3 Integrated land use and transport planning as a dependent variable

The dependent variable of this study is the actual results of integrated land use and transport planning that reflect achievement of the political goal. On the basis of this, the project uses the following criteria for goal achievement:

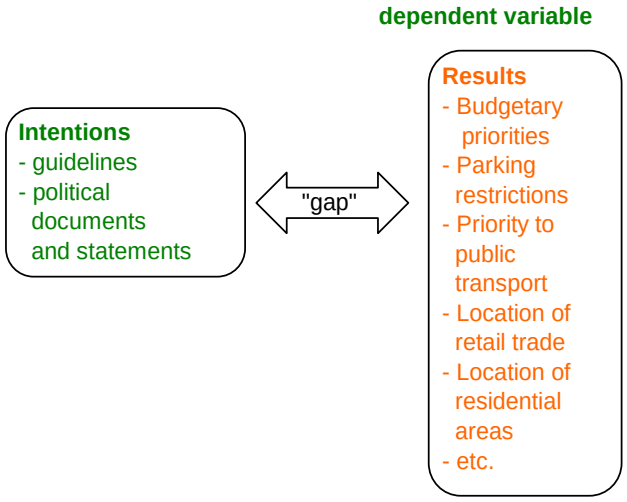
- a land use and settlement structure that reduces demand for transport by countering the spreading in urban areas
- the facilitation of sustainable modes of transport and efficient transport services

These criteria correspond to the European guidelines for sustainable development of cities and regions as set out by the European Conference of Ministers (ECMT) responsible for regional planning and the corresponding national guidelines of the Norwegian Ministry of the Environment (Miljøverndepartementet, 1993).

Goal achievement of the integrated land use and transport planning will be measured by assessing the policy formulations in the planning process and the results in respect of actual implementation of these goals[9]. The assessment should also reveal and explain gaps between intentions, i.e. policy formulations and results of implementation within the regional framework (see Figure 2). Spatial and transport planning is measured by the answers to the following questions: Are there any plans for the area? If the plans are coordinated in the organisational structure, how detailed are they and are they decided upon politically? What are the main topics of the plans (Frøysadal, 2003)?

[9] It is possible to make a quantitative assessment of indicators for integrated land use and transport planning, such as population density, emission of CO_2, modal split, parking possibilities and production of public transport (Frøysadal, 2003; Vibe, 2003). We have, however, not found feasible methods for measuring how regional governance influences integrated land use and transport planning as a dependent variable, using quantitative operationalised indicators for this study. Hence within this research context it is hard to evaluate the extent of goal achievement within integrated land use and transport planning on a quantitative basis. The evaluation of specific goal achievement will be done by qualitative assessment. In this context, it will be essential to give a realistic description of the extent to which integrated spatial and transport planning can influence the demand and mode of transport. Researchers have shown how socio-economical factors contribute to the spreading of urban areas and an increased use of car transport (Pucher/Lefevre, 1996). Norwegian reports illustrate how major emphasis on measures related to transport and land use planning merely reduce the growth of emissions from road transport (Stølan 2004, et al ; also see Skogstad/Johansen, 2000).

Figure 2.1: Integrated land use and transport planning as dependent variable



Several ways of assessing policy formulations and implementation that will be used in the case studies are as follows:

- contents of regional plans for spatial development (such as the *Regionplan 2005* (regional spatial plan) for the county of Funen and the *Regional Raumordnungsprogramm 2005* in the Hanover region) and the follow-up in spatial and transport policy decision documents (such as ATP decision documents in the Kristiansand Region, road investment plans and public transport plans in the County of Funen and the public transport plan (*Nahverkehrsplan)* in the Hanover Region.
- the inclusion of integrated land use and transport principles in municipal spatial development plans such as the *Kommuneplanens arealdel* in Norway, the *kommuneplan/lokalplan* in Denmark and the *Flächennutzungspläne* in Germany
- identification of conflict and political discourse between the stakeholders in the regional cooperation arena on specific decision processes (such as the location of discount stores or IKEA in the Kristiansand and Funen regions and planning instruments to avoid urban sprawl in Hanover such as the location of retail trade and the use of proprietary development limits). How have specific conflicts on policy priority settings been solved in the regional governance framework? Are the solutions in accordance with the integrated land use and transport planning principles?

The project will also describe the regional transport policy as part of the dependent variable and the background variables that facilitate the efficient supply of public transport. This means that the project must provide a qualitative assessment of policy formulations and implementation of the regional transport policy.

The organisation of public transport will be described in regard to ownership of the public transport systems and how timetables and fares are coordinated.

2.4 Regional governance as an independent variable

Our independent variable consists of different institutional dimensions of regional governance. These include:

- the role of the regions, counties and municipalities in the national political- and administrative system, i.e., financing, budgeting and professional expertise at the different levels of government
- division of competencies between central, regional and local government and policy instruments available for influencing goal achievement
- fragmentation of competencies between different sectors

The role of regions, counties and municipalities in the national political and administrative system

The analysis of regional governance as an independent variable will be based on the different dimensions described above. The project is based on the assumption that such institutional differences are important in explaining conditions for implementing integrated land use and transport planning.

The role of regions, counties and municipalities in the national political and administrative system may vary between the different countries. These differences may be explained by different political and institutional traditions and characteristics at the national level. However, they do not necessarily follow the division of centralism versus decentralism. A strong tradition for using the regional and local level for achieving national goals in a sector would imply that the regional policy level matters. On the other hand, it may also imply that sub-national political stakeholders will not be able to develop any policy that is contrary to national goals. However, we would expect policy processes to be more vivid in regions or municipalities that are committed to supporting national goals and that are expected to do so at the national level. The role of the regional governance level may thus be described in two ways: firstly, policy implementation is regarded as a product of a coalesced process in which the national and local levels are integrated through regional coordination and policy decisions. Secondly, we have to ask about the legal status of the regional policy level. Is it an administrative level with limited competencies or a legitimate political decision level with a broad range of competencies?

Division of roles between central, regional and local government

Research into multi-level governance (Hansen, 2001) describes a strengthening of the regional level and explains it as a result of the emerging role of networks as a form of coordination. These networks do not necessarily follow the administrative division of the governmental hierarchical policy decisions system. The division of roles between central, regional and local government will always be a complex interaction that has to include several policy areas and issues. In a policy area such as spatial development and transport, the regional level may, as in the Hanover and former Funen regions, have clearly defined competences qua general legal status at a political-administrative level. The roles may also have been

widened by an ad hoc political transfer of power for limited policy areas or for a period of time, as in the Kristiansand case.

One criterion for evaluating the division of responsibilities has been whether there are sufficient administrative planning authority at the level of decision. Some expert opinions have emphasised that decision-making powers for prioritising projects should correspond with the responsibility for financing in order to be powerful (Ravlum et al, 2005:27-28). The project will therefore include a description of financing and budgeting, and the professional expertise available at the regional level.

Available policy instruments for influencing goal achievement

Policy instruments for influencing goal achievement are closely linked to the division of competencies and the role of the local and regional level in achieving nationally-set goals. The role of the regional administrative political system may thus be assessed by analysing available policy instruments such as regulations, planning, investment decisions and fiscal instruments at the different regional levels. The project will analyse whether the instruments available are adapted to and may enable policy formulation and implementation at the regional level. The different framework conditions in the three countries may have significant impact as they counteract regional and municipal goals for land use and transport planning. These can be described as the (unintended) consequences of policy instruments that enforce urban sprawl[10].

Fragmentation of competencies between different sectors

New forms of regional governance are initiated and implemented against the background where a new organisation at regional level may be adequate for counteracting fragmentation of roles between different sectors at the same administrative level. In this project we look at new forms of regional governance as formalised regional cooperation that leads to a perceived shift from a functional towards a territorial focus on policy enabling prioritising of investments and policy measures. Regional governance as a normative concept thus emphasizes the need to turn away from a specialised sector policy towards an integrated policy coordinated at the regional decision-making level (Benz & Fürst, 2003). The project will look more closely into how different models for regional governance influence the coordination between spatial development and transport policy. Regional governance is thus understood as the strategic coordination of interdependent processes at regional level (Mayntz, 1993).

In literature on governance (Scharpf, 1994) networking is described as a coordination mechanism in the "shadow of hierarchy". Policy relevant decisions such as budgeting, strategies for network planning of transport systems and investment priorities are thus outsourced to private-public networks, and consequently move away from democratically-controlled processes to informal networks. Fimreite, Medalen and Aars (2005) argue that public policy decisions

[10] Lehmbruch et al (2005) describes tax incentives, local tax revenues and property taxes as examples for such policy instruments.

are challenged by more or less formal networks which may result in fragmentation and loss of political control. The development towards binding land use plans made by private companies in Norway is an illustration of privatisation of political areas (NKF, 2000). A strengthened regional governance can enable cooperation between private and public stakeholders, but within a defined set of process rules. Regional governance has thus been described as a viable mode for regaining political control in fragmented coordination structures (Adamschek/Pröhl, 2003) and can in this sense also be described as meta-governance (Jessop, 2002). Our research will describe the division of roles and competencies between public and private stakeholders within integrated land use and transport planning. Does the use of regional governance structure influence this division and if so, how?

2.5 Assumptions on how dimensions of regional governance influence integrated land use and transport planning in the case studies

2.5.1.1 The role of the regional level in the political administrative system

According to the Norwegian planning model, the regional level, which consists of the counties, plays a diffuse role in planning. The counties are responsible for county roads and have some influence on non-trunk national roads and public transport service levels in the region. The municipalities are in charge of physical planning at the local level. Competencies for planning national roads are vested in the National Public Road Administration (NPRA). National trunk roads are planned by the NPRA Headquarters while other (secondary) national roads are planned by the regional NPRA office, which, in the case of Kristiansand, covers four counties. The counties are, however, important partners in the planning of such secondary national roads.

The regional level is stronger in the other two case studies than it is in Norway. In the former county of Funen, the powers for regional land use and regional transport planning were largely vested in the county. Responsibility for railways and the two motorways across Funen, however, fell to national transport agencies. In the Hanover Region we may regard the regional level as autonomous in respect of policy formulation at both local and federal state level (*Bund* und *Land*). In the Kristiansand region, some national policy instruments have clearly influenced the framework conditions for the regional pilot project, such as the Public Reward Fund from the Ministry of Transport and Communications that gives additional funding for public transport as a reward for good practice including restrictive measures against automobile usage. In all case studies and in the Norwegian reference planning system, the goals of integrated land use and transport planning were in accordance with the priorities at the national (in Hanover including the priorities of the *Land Niedersachsen*) and regional level. The role of the regional level, therefore, makes it likely that policy achievement in respect of integrating land use and transport planning is largely dependent on political will at the regional level. In the Norwegian regional cooperation pilot study, commitment from local level participants, in addition to the commitment at the regional level, will be

crucial for successful implementation as the regional coordination is dependent on the participation of the municipalities. In Funen and Hanover, this is not formally the case, as the regional level is institutionalised as an independent political and administrative level above the municipalities and thus has separate authority. The permanent organisation in Funen (until the end of 2006) and Hanover is assumed to contribute to the development of the professional administration at the regional level. The regional models of Hanover and Funen do not, however, facilitate the development of professional expertise at the local level.

2.5.1.2 Division of competencies between administrative levels

We assume that a formalised political-administrative system on the regional level, such as in the country of Funen and the Hanover region as well as a consensus-orientated decision level, such as in the Kristiansand region, will be adequate for addressing problems, formulating policies and coming up with solutions and priorities that will facilitate integration of land use and transport. In the Kristiansand region, we assume that the municipal level will contribute more strongly to the formulation of different alternatives of land use planning. This is due to the consensus model of the regional coordination pilot scheme. If the regional policy goals are sufficiently specific, we assume that spatial development at the municipal level that conflicts with regional planning solutions and priorities will not be implemented.

In the stronger formalised regional governance models, such as Funen and Hanover, we assume that the local level will be less involved in land use and transport planning at the regional level. This may result in more conflicts between the local and regional levels, for example,. on development and location of larger shopping malls or on local development needs (where this goes further than the possible limits that can be derived from the regional plans, for example, the regulation of *Eigenentwicklung* in the Hanover Region).

In all the case study regions, competencies both in regard of professional expertise and responsibility and prioritising and budgeting are coordinated at the regional level. We thus expect decision structures that will facilitate integrated land use and transport policy. In the Kristiansand region, the responsibility for budgeting and prioritising different projects may contribute to reduced fragmentation of the region's policy. In the Funen and Hanover regions local responsibility for local public transport may, however, lead to transport services that are not coordinated with the regional strategies.

2.5.1.3 Policy instruments available at the regional level

We assume that a strong regional level will strengthen the possibilities of integrating spatial and transport planning, *e.g.* by better integration of investment priorities with local policy instruments, such as parking regulations. Broadening available policy instruments, such as a combined land use and transport planning, combined with decision-making powers on road investment, will contribute significantly to increasing the importance of the regional level in all case studies.

In the Norwegian case study, regional plans are not legally binding for the municipalities. Implementation of integrated land use and transport planning will consequently be dependent on a consensus among all participating stakeholders.

The institutional interests of stakeholders may influence the consensus-building process. In addition to the planning instruments, the different stakeholders have a broad variety of policy instruments to hand within the area of integrated land use and transport planning, such as parking regulation, administration of public transport, lump sums or earmarked funding of public and road transport packages and control over budgetary priorities. In this project we have assumed that broadening the instruments available for the regional stakeholders is an important dimension in strengthening the regional level.

2.5.1.4 Division of competencies between sectors in the region

The integration of competencies (roles) with regard to public transport and roads may lead to less fragmentation of transport policy in the region than of spatial issues. In other words, we assume that institutional integration of competencies within public transport, road planning and regional planning as units in the county administration facilitate integrated land use and transport planning at the regional level. All our case study regions have this form of integration of competencies. However, the division of responsibilities varies in the case studies, and this may lead to different conditions for integration. In the Kristiansand region there is no permanent common administrative level. We thus expect the policy to be less integrated in respect of implementation of land use principles at the municipal level. In both the Funen and Hanover regions we expect that the strong administrative capacity and the functional integration of both spatial and transport policies at regional level will contribute to integrated land use and transport policy. We assume, however, that the clear division between the sectors may be an obstacle for integrated policy implementation embracing land use planning, transport planning and public transport services in these regions.

2.6 Alternative explanatory models

Policy formulation, decisions and implementation of urban transport policy and land use planning are highly complex processes. Studies of Norwegian land use and transport planning (Nielsen et al, 2000; Lerstang & Stenstadvold, 2001) suggest alternative explanations to the gap between policy intentions and implementation.

These are:

- interest theory
- lack of instruments
- segmentation of arenas
- external events

Our hypothesis will not be strengthened – or weakened – unless we consider these factors. How might they affect the gap between the goals for integrated land use and transport planning and its implementation? How does regional governance influence the formulation of interests, the multi-level distribution of instruments, the formation of arenas and the response to external events. Thus alternative

explanations may be considered in two ways: first, the explanations may themselves be crucial and more important than the institutional factors that constitute the hypothesis on regional governance (interest theory, lack of instruments). Second, regional governance may influence on the significance of these explanations.

2.6.1 Diverging stakeholder interests

Classical theory on political decision-making views policy results as the output of processes in which stakeholders pursue their interests. These theories focus on the political, social and political power of the different institutions and how the political decision-making process is formed through these interests (Pütz, 2005). Thus, the institutional framework, i.e. the institutional framework of a decentralised, regional or centralised decision structure, may not alter the political output. The political stakeholders will adapt to the institutional changes in order to maintain their interests.

According to such an approach, a change in the regional institutional setting will not improve the implementation of political goals of an integrated spatial and transport policy. The authorities have formulated the goal of an integrated spatial development and transport policy. It is a normative condition for the policy-makers to follow. However, the municipalities and urban areas may not necessarily follow this policy formulation.

First, there may be a conflict of interests between the municipalities and the central government. This conflict may be at a political level or on an administrative basis. There may, for example, be no "real", political commitment at the local level for the national goals, so the tools used to implement national goals may be contrary to integrated land use and transport planning (Nielsen et al, 2000:41). According to interest theory, it is a matter of the local stakeholders' attitude towards central governments policies, whether commitment to the policy exists. If the central government has a strong interest, it is more likely to have strong incentives to decide on regulative policies in order to achieve the goals of an integrated spatial development and transport policy.

Second, there may be a conflict of interests between (local) politicians and private stakeholders, such as entrepreneurs and large development companies. The potential of indirect economic sanctions may convince politicians to decide upon projects that, for example, create urban sprawl and that are not in accordance with the principle of an integrated spatial development and transport policy. Some authors (Nielsen et al, 2000) argue that the policy instruments for governing the market in the integrated land use and transport planning area exists, and that the gap between national goals and local policy decisions indicates an ideological shift among decision-makers who are not willing to implement the concept, as this is regarded as a undesirable state interference. This means that the gap between political intentions and policy results can be partly explained through liberalisation that leads to a more market orientated land- use and transport policy (Nielsen et al, 2000:40-41).

Third, there may be a clear conflict of interests between the different sectors, such as the transport ministries, national road agencies and the planning principles of the environmental ministries. In Norway, analyses of road investments, decisions

and priorities (Ravlum/Sørensen, 2005; Fosli/Lian, 1999) demonstrate this. Nielsen et al (2000) conclude that the main road investments require a large percentage of the available budgetary means in the transport sector. Moreover, they argue that road projects are often in conflict with the goals of integrated land use and transport planning. The transport investment programme in Oslo illustrates this (Statens vegvesen, 2006;Civitas, 2006).

Research into transport policy and spatial development in Norway (Nielsen et al, 2000, Lerstang & Stenstadvold, 2003), however, shows that there is a high degree of convergence between national and local policy statements, but that the two areas are disconnected and fragmented when it comes to practical decision-making. The theory of segmented arenas (Kitschelt, 1980) and the advocacy of the coalition approach (Sabatier & Jenkins-Smith, 1993) contribute to explaining the role of interests and normative positions in policy decision processes. These theories emphasise the institutional perspective when analysing decision-making processes. Thus there may be an link between regional governance and the formulation of interests at local and national level.

2.6.2 Interest theory implications

The concept of regional governance presupposes that a formalised regional network with decision power exists. For this reason it must be assumed that the stakeholders who are particularly interested in the political area covered by the network, will strive for their position in this network. On the other hand, setting up a new regional network of governance may alter the position of the different stakeholders. Thus, we assume that there is a rigorous political debate on whether the network ought to be established and what kind of decision-making power it should have. If this is not the case, the lack of conflict would require an explanation.

Studies of regional governance should therefore look at the structure and development of the regional network. What are the subjects to be decided upon by the network? Has the scope and the range of responsibility been modified? Who participates in the regional network and what are their motives and reasons? Moreover, who is not participating at the network, and who is excluded?

2.6.3 Lack of policy instruments

Lehmbrock et al (2005) examine the conditions for an integrated spatial planning and transport policy in Germany. What can be done to increase efficiency and sustainability in the relationship between spatial structure and transport systems? They focus on the complexity of origins that cause development contrary to an integrated spatial development and transport policy. This development may be caused by policy orientation favouring a decentralised and car-focused spatial development (Lehmbrock et al, 2005). In this setting, regional cooperation and increased powers at the regional level are regarded as a policy instrument and part of the policy recommendations (Lehmbrock et al, 2005:359-360). However, it may be questioned whether the governance arrangement explains policy outcomes – for example, if spatial and transport policy is centralised/concentrated or decentralised, or if there exists a regional governance level that takes policy decisions in the transport and spatial field. The main explanation for policy

outcomes in this analysis is thus the existence of policy instruments in and outside the transport sector that increase development, and that the lack of policy instruments will counteract this[11]. The Norwegian research program LOKTRA also concludes that the use of policy instruments is not coherent with regard to integrated land use and transport policy (Nielsen et al, 2000:45). There is an incorrect mix of policy instruments, and restrictive instruments to reduce car traffic are not implemented.

2.6.4 Implications for the research project

A regional network will have a certain range of policy instruments at hand. The influence and significance of regional governance will therefore depend heavily on these instruments. When analysing the role of regional governance in integrating land use planning and transport policy, we need to ask whether these instruments have been extended, and whether the responsibilities for the available instruments (such as road pricing, investment decisions etc.) have been changed and whether the perception of these instruments is changing. If the regional network is in charge of new or newly-adopted policy instruments, we have to ask whether it is the broadening of the tool kit or the regional decision level that is important for the policy output. The project also has to ask for and assess whether important policy instruments are exogenous to the regional level, thereby diminishing the extent of the regional governance impact.

2.6.5 Multiple arenas in land use planning and transport policy

An integrated spatial development and transport policy covers a vast area of decisions and stakeholders at both the state and the regional/local level and these are fragmented. Lerstang and Stenstadvold (2001) ask whether the trend of New Public Management has added to this disintegration. The disintegration may also be described as a segmentation of the **political cycle**(s) of land use and transport planning. The land use planning and transport policy in Norway today is a distinct example of the co-existence of segmented arenas. The investment decisions for state and regional roads are put forward by the Public Road Administration and the road network of national interest and budget allocation are decided by the Parliament, while toll roads have to be decided upon by the municipalities. The subsidies for public transport in a municipality are administrated and distributed by the counties. The subsidies are a part of the non-earmarked transfers to the county level. Land use is decided upon by local government, but the specific projects are mostly developed and proposed by private stakeholders.

Kitschelt (1980) classifies functional policy problems as:

a) policy problems concerning regulative frame conditions
b) ideological policy problems
c) economic policy problems

[11] As a possible solution, Lehmbrock et al (2005) suggest a number of policy instruments to be included in an integrated spatial planning and transport policy, such as the withdrawal of taxation benefits for commuters, new forms of financing for public transport and public transport infrastructure requirements for new building areas.

Kitschelt (1980) has shown that different functional problems are dealt with in different arenas. In many policy areas, segregation of the stakeholders in an ideological arena and a day-to-day arena for economic bargaining and (re)distribution is observed (Leite, 1994). The policy discourse in those areas is again framed through the regulative societal structure of the policy area.

In this context, regional governance can be described as a model for regaining political control and re-coordinating the stakeholders in the land use planning and transport policy and thereby influencing the distribution of power in informal coordination. In analysing the regional network we must therefore look at the different **arenas**. What arenas can be identified? Can regional governance of a political subsystem manage to bring together different arenas? Are the arenas adequate to solve the functional problems that have motivated the regional network or regional governance model to be established?[12]

Another crucial element in the case studies will be to analyse the different institutions participating in the network. Who are the principal stakeholders and who are the initiators of the regional network?

A description of the structure of the **political-institutional system** is important in order to assess the role of regional governance in the political decision making process. Will cooperation in a regional setting give the stakeholders an improved position or new opportunities to influencing the political process? Or will regional governance put limits on the influence of the stakeholders? This we have to look for the vertical and horizontal connections and the problem-solving capacity of the administrative level that has been established.

2.6.6 External events may explain the success of integrated land use and transport planning

Advocacy of the coalition approach (Sabatier & Jenkins-Smith, 1993) combines the concept of social and normative values with the realisation of (institutional) interests to explain policy output and policy changes. According to Sabatier and Jenkins-Smith, policy formulation is usually developed in two or three different coalitions with a set of common belief systems. These coalitions cover a specific political area or policy subsystem. The coalitions do not consist only of the political decision-makers, but all the stakeholders, journalists and professional experts who influence a policy area. Changes of understanding within these coalitions is defined as 'policy learning'. The thesis is that political changes are largely a result of external events, and that the participating stakeholders and decision-makers cannot influence these events. Such external events can be e.g. socio-economical and technological changes or changes to the majority through political elections. Interaction, discourse or rhetorical argument between different coalitions may, however, lead to partial changes in the orientation within the institutions (Sabatier & Jenkins-Smith, 1993; Leite, 1998, 2004).

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[12] In the case studies in this project we will describe the different functional problems that are focused on in the regional network. Are there different functional problems that are addressed in the different cases of integrated land use and transport policy in the case studies? Is this focus important for the solutions and results proposed by the regional network (see chapters 4 to 6)?.

In a study of conditions of success in sustainable urban transport policy, Bratzel also argues that the changes "o*nly occurs due to strong and enduring forces originally from outside the local political system* (Bratzel, 1999:177)." The output changes are measured both as the modal split in urban transport, but also in regard to paradigm changes in political goals and change of instruments and their settings. Bratzel argues that the changes in urban transport policy of the cities of Amsterdam, Groningen, Basel and Zurich started off in the late 1960s and the beginning of the 1970s as strong and resistant public protest movements. In Groningen and Zurich, the policies of the municipalities were changed by a clear political mandate through a new governing coalition that gave a broad legitimacy for a reorientation of the transport policy. The policy window described by Bratzel is regarded as a necessary but not sufficient condition for political change for implementing a sustainable transport policy (Bratzel, 1999:186-1989).

Sabatier and Jenkins-Smith (1993) would categorise this as an institutional change or framework condition that may alter the influence and power of the different stakeholders. This change then may alter the coalition or power relationship between the advocacy coalitions. What external factors can be identified that might explain the policy output, e.g. integration between spatial and transport policy? Are there events that indicate that new forms of regional governance are not adequate to explain the policy gap? Or, put another way: does a lack of external situational factors explain the policy gap (Bratzel, 1999)?

2.7 Methods and empirical basis for the case studies

The data collection consists of analysing literature and documents from stakeholders and expert interviews. The data collection and analyses have been carried out according to the dependent and independent variables identified and discussed for the analyses (section 2.3 and 2.4).

The purpose of the interviews was to gather information about the institutional conditions for cooperation and decision-making in the three case study regions. How did the central stakeholders, who were themselves integrated in the planning process in the region, perceive the cooperation and the planning system? Methodologically we chose to interview crucial stakeholders at the regional level. We deliberately aimed at gathering arguments and opinions of stakeholders who participate at the regional level. The expert interviews were carried out as open, semi-structured interviews (Merton & Kendall, 1984). This method was chosen as the project has been explorative. In the choice and analyses of the case studies, the qualitative data collection has been analysed and explained in conjunction with theoretical framework of the project.

The interview guidelines reflect the set of criteria used to define the concept of integrated spatial and transportation planning as a dependent variable for the analysis. We have chosen a set of questions to estimate the variables that may explain the different institutional conditions. This framework was partly based on the description of Benz and Fürst and adapted to the description of institutional dimension of regional governance (Benz & Fürst, 2003:54-57).The guidelines were thus adapted to the area of responsibility and task of the institutions of the interviewees. Guidelines for the interviews were prepared for each case study region, taking into account the hypothesis related to the regional governance

dimensions and the description of land use and transportation policy in the case study regions. The institutional characteristics (as independent variables) were systematised and provided a common framework for interviews. The core questions in all interviews covered perceived successes and failures, strengths and weaknesses of the three regions' regional governance models. The expert interviews covered the perception of achievements with regard to integrated land use and transport planning and the specific coordination conditions in the region (see appendix 1 with the base interview guidelines).

In the Kristiansand region, the interviews were undertaken in May and November 2007 with ten representatives of the ATP committee and project groups. We have interviewed the project leaders, a representative of the local Road Administration, a representative of the private bus company, two representatives of Vest-Agder, and three representatives of the municipalities. One is a politician on the ATP committee, one is an observer on the ATP committee, four are involved in the land use project, three work on the transport project and one is external to ATP, but affected by its decisions. Literature research and document studies of national documents that express the goals of integrated land use and transport policy, county plans and ATP reports have also been carried out.

In Funen, interviews were undertaken in June 2007 with six people. In Funen we focused on in-depth interviews with a small sample of experts and stakeholders, primarily the heads of the departments in the former county and a municipality. The interviews aimed at describing how the interaction between the county administration departments and the county was able to influence the transport and land use policies at the municipality level. For this reason the interviews gathered general information on the institutional conditions for cooperation within the former county system and also gathered information on location conflicts for residential areas and retail trade priorities.

In the Hanover region, the interviews were carried out in the autumn of 2007. The Leibniz University of Hanover interviewed 10 representatives from the regional and municipal administration. The cases were chosen after initial talks with central regional representatives. In addition, representatives from several participating municipalities were interviewed on case-specific decision-making processes for large development projects, location of large retail trade surfaces and residential development in rural areas. This approach was chosen as the implementation of the instruments in the regional spatial plan was the main element in analysing the effects of the regional cooperation scheme.

The method used in the interviews has enabled an open view on coordination outputs and conditions in the specific cases interviewed. However, the findings must be interpreted in the light of the specific contexts in the region and thus cannot be generalised. The results from the interviews provide us with an insight into how the regional stakeholders perceive their role and influence in the regional models studies in the case studies.

3 The current Norwegian planning model and transport policy competencies in Norway

In this section, the responsible entities for the policy areas and means that together may contribute to integrated land use and transport policy will be presented. Such means also include legal and economical competences.

The local land use and transport policy is the result of interaction between several stakeholders in several policy areas (Ravlum et al, 2005). One of the results of this project will be to assess the kind of regional governance that can be implemented in a Norwegian context. In the following we will describe the division of competencies in land use planning and transport policies in Norway today.

The case studies of the Hanover region, Funen and Kristiansand will be compared with the traditional way of organizing integrated spatial development and transport policy in Norway. The Norwegian planning model and transport policy competences will also be described. An answer will be provided to the following questions: Who has responsibility for integrated spatial and transport policy in Norway? How are infrastructure and public transport financed?

The three levels of political authority in Norway are the central government, the counties and the municipalities. At the national level the Ministry of Environment is responsible for regional planning and the Ministry of Transport and Communications is in charge of railways and national roads. The counties are responsible for local public transport and county roads. Moreover, county plans are required by law. The municipalities provide public transport infrastructure such as facilities for modal change. They have long-term plans, financial plans, sector and land use plans and programmes which formulate goals and strategies for different sectors (Minken & Samstad, 2003).

The following table shows the responsibilities of the central, regional and local levels.

Table 3.1 The Norwegian Planning and Transport Model[13]

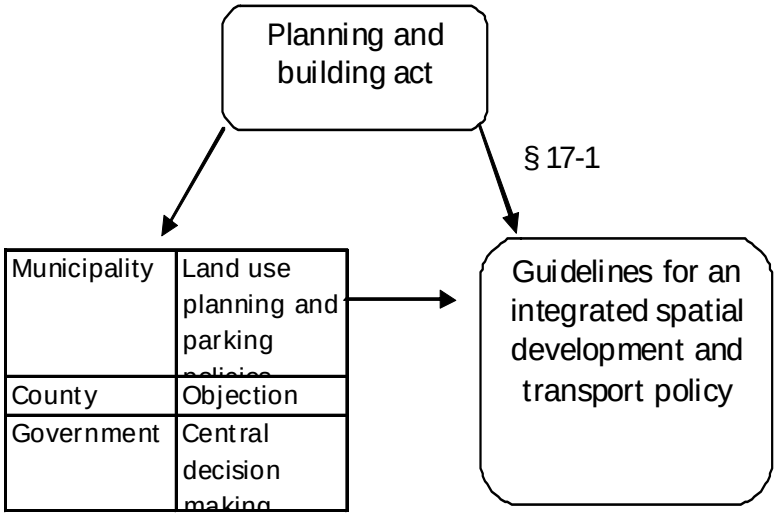
	The National Government	Counties	Municipalities
Land use	• Planning and Building Act • National policy guidelines for coordinated land-use and transport planning (not binding) • Decides when counties object to municipal decisions (Ministry of Environment)	• Policy guidelines for land use in the municipalities (not binding) • County plans • The right to object to municipal plans	• Municipalities' land use plans (binding) • Regulation and development plans (binding)
Parking policy	• Regulation on public parking and parking charges (FOR-1993-10-01-921)		• Parking policy, charges, residence zones, regulations of parking areas
Public transport	• Passenger transport on trains (Norwegian State Railways, operator owned by the Ministry of Transport and Communications) • Railway infrastructure (the Norwegian National Rail Administration, infrastructure agency owned by the Ministry of Transport and Communications) • Vocational Transport Law (LOV-2002-06-21-45) • Transfer lump sum to the counties	• Concessions and subsidies to local public transport with the exception of railway • Concessions to coaches that cross county borders	• Regulations of areas for public transport infrastructure
Pedestrian and bicycle lanes	• Along national roads	• Along county roads	• Along municipality roads
Roads	• Investment and maintenance funds for national roads (Ministry of Transport and Communications) • Planning and maintenance of national roads (Norwegian Public Roads Administration) • Road Act	• Investment and maintenance funds for county roads • Planning and maintenance of county roads (Norwegian Public Roads Administration)	• Investment and maintenance funds for municipal roads • Planning and maintenance of municipal roads (Norwegian Public Roads Administration)
Toll rings and toll roads	• Decide on local initiatives and may contribute with extraordinary funding • Road Transport Act	• A local initiative by municipalities to introduce a toll ring or cordon requires the affected counties' acceptance	• Municipalities decide in consensus to introduce a toll ring or cordon

The division of power between different levels of authorities imposes a lack of integration of spatial development and transport policies. The *Planning and Building Act*, which regulates the integrated spatial development and transport policy, is crucial in this context. It coordinates planning at the different levels of government (NOU, 2001:7). It creates a framework for municipalities, counties and the government to meet across sectors. According to the Act, municipalities have the power to decide on land use planning and parking policies. However, if a municipality decides to carry out a plan about which its county and neighbouring municipalities disagree,, they have the right to object. Objections may result in

[13] For similar tables see Spangen (1995) and ECON (2002).

arbitration or central decision-making by the Ministry of Environment. In certain cases, the Norwegian Public Road Administration and the Norwegian National Rail Administration have the right to initiate planning. In other words, the Act is process-oriented (NOU, 2003:14). Everything else is decided through guidelines.

Figure 3.1. Players and rules in the game of integration of spatial development and transport policy



The Planning and Building Act creates the basis on which use and protection of resources are balanced. The Act requires impact assessments to be carried out for plans that are expected to have significant impact on the environment, natural resources or society. Road projects are therefore always regulated by this act.

The Planning and Building Act is open to additional national specifications for spatial, economical and social development in counties and municipalities (§ 17-1). National policy guidelines for coordinated land-use and transport planning (Miljøverndepartementet, 1993) issued by the Ministry of Environment are such requirements. They describe national goals in this area and emphasise the necessity for cooperation. Increased concentration in already consolidated areas is important. The guidelines recommend that public transport as an environmental and efficient alternative of transport should be provided, where the population justifies this. Municipalities and counties should organise planning so that an integrated spatial development and transport policy is achieved. This needs to be included in the cooperative work already accomplished and regulated by law. The guidelines also recommend that the county should play a central role as initiator in the integration policies. Moreover, they suggest cooperation across county borders where this may be necessary.

The Ministry of Environment publishes an environmental report almost every year. These documents stress the importance of cooperation between different levels of government, between municipalities and sectors, and the need for coordinated planning in the long term. The tools are in the hands of governmental and county authorities, whereas other *environmental policies* are in the hands of municipalities. The municipalities meet environmental challenges differently.

Some have an environmental committee (*miljøutvalg*); some work on environmental issues in committees with more extensive responsibilities (*hovedutvalg*) than an environmental committee; or environmental issues may be dealt with in the municipal executive assembly (*formannskap*). Usually, there is a chief (*kommunesjef, miljøsjef*) in charge of the environmental administration. Above the chief there is a chief officer (*rådmann*) who is the head of the administration. The political entities may delegate authority to the chief officer where this is not regulated by law.

The aim of combining investments and maintenance in the transport sector with environmental concerns can also be found in national transport policies (NTP, 2002-2011). The *National Transport Plan* suggests road pricing, rush hour tolls and parking regulation in combination with the "best possible" organisation of environmentally-friendly transport. The National Transport Plan is renewed every four years, and is the result of contributions from counties, larger city areas and the sector administrations of different transport modes (Ravlum et al, 2005). The Public Road Administration plays an important role in preparing the infrastructure planning of the Plan.

The *Norwegian Public Road Administration* is responsible for planning national roads. Five regional Public Road Administration offices and 30 district offices have planning competencies for county and municipal roads. Public roads are, however, owned and financed by the state, the region or the municipality (Ravlum et al, 2005).[14] They finance the county and municipal roads through local taxes and lump sum funding from the national budget. Moreover, in some geographical areas, users are charged through toll cordons and toll roads. The motive of such tolls is mainly financial, rather than traffic regulation (Bekken & Osland, 2004).

Norway has an extensive use of *toll cordons*. Every large Norwegian city, with the exception of Trondheim, has a toll cordon. The first toll cordon around a European city centre was established in Bergen in 1985 (Bekken & Osland, 2005). The government granted the same amount of money as the toll cordon was expected to generate. This "splice" between the government and local authorities created a norm for extraordinary funding from the government (Bekken & Osland, 2004). The ratio has often been 50:50. In most cases, the local level has proposed toll cordons in order to achieve national funding for larger investment projects (e.g. the Transport Package in the Kristiansand region (Kristiansand kommune, 2003).

The fact that toll cordons and toll roads are likely to trigger extraordinary funding creates incentives for the municipalities to introduce them, thereby engendering a situation like in game theory. Local authorities that do not choose to establish a toll cordon or toll road may lose twice over. They may not gain extraordinary funding from the government and they are not funded by the users.

The Road Act allows users to be charged through toll cordons and toll roads that are also used extensively in Norway. Legally, toll cordons and toll roads require local initiative and consensus. Until autumn 2007, the revenue could only be spent on investments. Public transport investments may be funded by such tolls when

[14] 30 percent are national roads, 29 percent are regional roads and 41 percent are municipal roads (Ravlum et al, 2005).

they provide a better solution to the overall transport situation than road infrastructure. While the first toll cordons and toll roads were used to fund public roads, more recent projects also fund investments in public transport infrastructure.[15] During the autumn of 2007, however, the national government decided to allow the use of revenues from toll roads and cordons for public transport services.

Since the 1990s, the municipalities have been allowed to impose differentiated fares at different times during the day. Only one city, Trondheim, has taken advantage of this opportunity. However, Trondheim removed its toll cordon on the 30 December 2005. The city of Stavanger also introduced differentiated fares, but the size of the differentiation was small, and so it probably did not provide incentives to adjust driving behaviour.

Also, in 2001 the Road Transport Act opened the way for municipalities to make use of road pricing. Road pricing is not yet compulsory and will probably not become a national regulation until a local authority requests road pricing. As road pricing is not popular among voters, this is not likely to happen in the immediate future.

Funding is crucial to how local authorities prioritise. The fact that the government is financially responsible for national roads creates incentives for municipalities and counties to invest in the road sector rather than initiate something they have to finance themselves. Local public transport is an example of the latter.

In Norway, with the exception of two cities (Bergen and Trondheim) which are carrying out trial programmes, and the city of Oslo, the *local public transport* authorities are the counties. They are responsible for local transport except for trains, which are the responsibility of the national government.

The counties formulate the aims for local public transport. One aim is to ensure a certain level of fares and accessibility (Longva & Osland et al, 2005). Primarily, buses taking pupils to school ensure this service, which is regulated by national law.

Norway has a system of licenses in the bus sector. Access to the market is limited to an operator with a temporary license to deliver the service for a certain area or route. During the licence period, the operator has monopoly on delivering the service. The counties decide whether a bus company becomes a licence-holder for local routes. The county in which a company has its business address allows license applications to the company for routes crossing county borders (Rundskriv N-1/2006).[16]

Traditionally the public transport authorities in local public transport contracted out transport services, usually to private companies that negotiate higher payments and subsidies on net contracts. Net contracts imply that the operator carries the revenue risk and keeps the fare revenue. In 1994 the national government decided to open up competition in local public transport in order to

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[15] Funding of road infrastructure through toll roads goes back to 1933 where isolated projects such as a bridge or a tunnel were invested in (Bekken/Osland, 2005).

[16] If the business address is in neither of the route's counties, the application shall be decided on by the county with the route's end station, or the county with the route's largest market share.

achieve cost efficiency. With competitive tendering, gross contracts were introduced. Negotiated contracts are still common. These are net contracts. Most of them include a clause in which they threaten the operators with the loss of the franchise. As this s a credible threat, it may discipline the operators in the same way as franchising does.

However, today 26 percent (Bekken, 2006) of local public transport services are procurements (i.e. outsourced as opposed to provided directly by the authorities). Eleven counties have made use of competitive tendering as a tool. The majority of these counties have established publicly-owned corporations which plan the local public transport. Based upon political guidelines, the corporations decide on routes and prices. With the exception of Telemark, the local public transport authorities (of those that have introduced competitive tendering) bear the revenue risk.

The counties finance local public transport through their funding allocation from the government (lump sum) and tax income. The counties are free to choose how to spend the governmental contribution, but need to fulfil certain legal demands. Within local public transport, only provision of school transport is required by law. There are no other minimum demands for local public transport. There are, however, demands on other policy areas in the counties, such as upper secondary education. As a consequence, the counties have limited economic financial freedom to increase the funding of local public transport in urban areas. The government, however, funds local public transport by train.

So far, we have seen that the Norwegian system creates incentives for investments in road infrastructure, while public transport may be provided to a lower degree than is appropriate if the national guidelines are followed. Another way of decreasing car usage may be to restrict parking. How are parking places regulated in Norway?

The Planning and Building Act regulates the use of area for *parking*, but works only as a tool for new construction and change in usage, not for private parking lots already in existence. The municipalities may introduce fees for parking on public ground, but cannot impose fees on private parking places. As private parking lots compose a large proportion of the total, municipalities may face difficulties regulating parking through restrictions (Spangen, 1995; Hanssen, 2002).

Moreover, traditionally and most commonly (Hanssen, 2002), only a minimum number of parking places are required at new developments. These are decided on by the municipalities; there is no national regulation. The political will to use parking policy to reduce car usage is not present (Hanssen, 2002). Controversies (Strand & Moen, 2000) regarding parking policies exist *within* municipalities where traditional trading centres in the city centre compete against shopping malls located in suburbs and designed for car use, and *between* municipalities there is controversy as trade industries located in neighbouring communities compete for customers. Free parking is used as a tool in order to entice customers. According to Hanssen (2002), only the larger cities such as Oslo, Trondheim, and Bergen show any interest in restricting parking provision.

In conclusion, Norwegian spatial development and transport policies are fragmented, thereby limiting cooperation. The aim of integrated spatial development and transport policy is to plan construction in order to decrease the

need to travel and to facilitate access to public transport. Municipalities are responsible for spatial planning, parking policy and road pricing; the responsibility for infrastructure is spread over different entities and levels; and the operation of public transport is in the hands of the counties or the Norwegian Railways. This makes integrating the policies difficult. In order to meet the problems of spatial development and transport policies, the government has introduced trial programmes in four cities. One of them is Kristiansand which is one of the cases studies presented here.

Moreover, spatial planning and transport planning are dealt with in different sectors. Research (Spangen, 1995, Strand & Moen, 2000) suggests that sectors are not suitable for uncovering or solving problems that are not already defined within the sector (Spangen, 1995:34). External problems and needs have little chance of obtaining resources. The institutional framework may, in other words, provide barriers to combining different measures. Different entities decide on incentives that may be conflicting.

4 The Kristiansand region

4.1 Introduction to the Kristiansand region

The Kristiansand region, with its population of 120,000 is small compared to the other case studies of the Funen and Hanover regions. 75,000 of them live in the city of Kristiansand which is a medium-sized city in Norwegian terms. The region of Kristiansand experienced a population growth of 1.1 percent (102 individuals) between 1995 and 1999. The number of employees in the county also increased by 11 percent from 1995 to 1999 (Vest-Agder County Plan, 2002:3ff).

Figure 4.1 Map of the Kristiansand region (http://www.arealprosjektet.no/)

The Kristiansand region is a living, working and service region with a continuous transport system and overlapping land use. Kristiansand is the main centre of this region. Its surrounding municipalities are rural with a low population density. The municipality centres are located along national trunk roads. Kristiansand, Vennesla and Songdalen also have a railway. The table below shows the extent of commuting between the city of Kristiansand and its neighbouring municipalities.

Six municipalities and two counties make up the Kristiansand region. They are the municipalities of Kristiansand, Soegne, Songdalen, Vennesla in the county of Vest-Agder, and Birkenes and Lillesand in the county of Aust-Agder. These political bodies cooperate on transport matters; whilst the municipality of Iveland also contributes on land use matters. Although Iveland's land use overlaps with that of the other municipalities, it is not part of the public transport system and, as the table below shows, does not have many commuters to Kristiansand.

Table 4.1 Commuting between Kristiansand and its neighbouring municipalities (www.ssb.no 2006).

Working in municipality / Living in municipality	Lillesand	Birkenes	Iveland	Kristiansand	Vennesla	Songdalen	Søgne
Lillesand	2332	196	4	1153	20	13	20
Birkenes	166	1124	22	434	63	19	10
Iveland	1	10	208	149	126	4	4
Kristiansand	284	95	27	32529	740	536	599
Vennesla	23	26	68	2461	2795	83	65
Songdalen	7	2	2	1371	58	853	203
Søgne	9	2	1	2028	38	200	2137

The table shows the number of people living in the municipality in the left hand column and those working in the municipality on the upper row. The table is only intended to give an impression of transport between the municipalities. In addition to the data shown in the table, there are passengers travelling through the municipalities. These are not shown in the table. Some people may also have part-time jobs, and may not travel every day. The table only reflects commuting to work and not leisure or school activities. Commuting accounts for about 1/3 of journeys in Norway (Denstadli et al, 2005:41).

4.2 Regional governance in the Kristiansand region

We have argued that the institutional conditions in the Norwegian traditional planning and transport model make integration of land use and transport policy difficult. In order to reduce the fragmentation, the Kristiansand region has transferred powers to the regional level constituted as an inter-municipal cooperation. In this section, regional cooperation in the Kristiansand region will be described and its results discussed.

The aim of an integrated spatial development and transport policy is to plan with the aim of reducing travel needs and facilitating access to public transport. However, the fact that different levels and sectors are responsible for different areas and essential measures makes integration of the policies difficult. In order to improve integration between transport and land use planning by extending the use of policy instruments such as restrictive measures (Osland and Kraakenes, 2000), the government has introduced alternative programmes in four cities. One of them

is the Area and Transport Planning (ATP) programme in the Kristiansand region.[17]

The programme is organised as two projects, the transport project and the land use project, directed by one political committee. The ATP committee is not a legal entity but is based on a contract. The committee manages the programme and decides on budget priorities. The budget consists of resources allocated from the members in addition to extraordinary funding from the national government. This extraordinary funding, which we choose to name the Public Reward Fund, is a reward for good practice, and is a pilot scheme introduced by the national government at the same time as the alternative institutional arrangement (in Kristiansand: the ATP programme) was introduced.

The Public Reward Fund creates crucial incentives for city regions to create more environmentally-friendly land use and transport policy. Simultaneously with the new institutional arrangements in the Kristiansand region, the Ministry invited larger city areas to apply for funding from the Public Reward Fund. The most important criteria for awarding this extraordinary funding to city regions were: (a) that applicants implement measures that reduce car usage or show binding decisions from local authorities which confirm that this will be done, (b) they show that passenger growth is larger than growth in car use, and (c) they use the reward funding to enhance public transport when competing with cars. There are no other requirements on how to spend the resources. These resources may be used for services as well as for investments.

Table 4.2 Reward funding in the Kristiansand region, MNOK

Year	2004	2005	2006	2007	2008
Reward funding	10	15	25	15	Not decided

Norheim et al (2007) evaluate the Public Reward Fund, but find it difficult to isolate the effects of the Public Reward Fund, as four of the cities changed their institutional organisation during the same period. They argue that the Public Reward Fund has "greased the wheels" of the new institutional settings, and that most of the effects that they find are synergy effects.

The politicians represented on the ATP committee make decisions on integrated land use and transport policy. They are politicians who represent their municipalities and counties. A coordinator of the National Road Administration Region South contributes as an observer and advises the decision makers.

[17] We have chosen to call the ATP project a "programme" in order to distinguish between ATP and its two sub-projects. The ATP programme consists of the transport project and the land use project.

Table 4.3 The transport and land use projects in the ATP programme

	Transport project	Land use project
Initiator	Ministry of Transport and Communications	"Junction South"
Duration	2004-2007 + 2 years	2005-2009
Goal	Meet the region's transport challenges concerning environment and traffic issues efficiently and consistently	Common land use plans which will be implemented in the county plans, thereby binding
Decision process	Majority decisions (however, mostly consensus)	No binding decisions

In the *transport project*, which was initiated by the Ministry of Transport and Communications, the two counties and the six municipalities have centralised their responsibilities and resources for investment in and maintenance of county and municipal roads, and pedestrian and bicycle lanes along such roads in a common ATP pool. The National Road Administration Region South also transferred its decision-making powers on investments for national roads (except for trunk roads) to the new regional level, the ATP committee. The Road Administration did not do this voluntarily, but was obliged to do so according to the regulation of the trial (FOR-2003-12-22-1835).[18] Another programme, the Public Reward Fund, also initiated by the Ministry of Transport and Communications, added between 10 million NOK (in 2004) to 25 million NOK (in 2006) to the pool. The transport project's budget of 2005 was approximately 60 million NOK (7.5 million Euro).

Table 4.4 Budget for the transport project (Action Programme 2005-2007:14; Action Programme 2008-2009:23). The figures are given in 1000 NOK

Year	2004-2007	2008-2009	Sum
Members' contributions	53,594	21,110	74,704
Road Administration	73,000	34,000*	107,000
National Reward Fund	46,000**	30,000***	76,000
Total	172,594	85,110	257,704

* This amount is from the Transport Package.
** This figure is from the budget and is smaller than what was actually given (65 million NOK).
*** The figure is from the budget, but the amount has not yet been decided.

The transport project is not a permanent solution. It is a pilot scheme that was introduced in 2004 and ended in 2007, but was extended by a further two years.

[18] The government introduced a temporary regulation, in order to give the "new" organisational structure legal authority.

The decisions taken by the ATP committee are binding for the member units. In the transport project, decisions are usually based on consensus. However, majority voting takes place if necessary.

A year after the transport project was established, the *land use project* was introduced in order to create a common land use plan. The land use project was an idea of the regional forum "Junction South" (Knutepunkt Soerlandet). The municipalities which create the Junction South participated in the European Union's Urbal Regional Aid Programme (Urb-Al) which aimed at developing "networks of decentralised cooperation between local authorities on concrete topics and problems of urban local development."[19] With a starting point in this project, and funding from the European Union, Junction South decided to create common guidelines for a regional integrated land use and transport planning, and chose the ATP committee to administer it.[20] This was in October 2005 and the land use project will continue until October 2009 (Arealprosjektet, 2007).[21]

The purpose of the land use project is to introduce guidelines that integrate the goals expressed in national guidelines, and bind its member units to a sustainable development of land use (Birkenes kommune, 2003). However, the agreements are not formal, and the participating municipalities may do what they want despite the decisions taken. As long as the guidelines are not included in the county plans of Vest-Agder and Aust-Agder (the two participating counties), the member units may not follow the recommendations made in the regional plan by the ATP committee. In other words, the land use plan will only bind the ATP members if the counties adopt them in their county plans.

The land use project and the transport project each have a project group that discusses and prepares the political committee's meetings. The project groups are constituted by representatives of the member municipalities and county administrations in addition to three people who are employed specifically for the ATP project. Two of them work for the transport project, and one leads the land use project. Thus, there is an independent administration as well as the member units' expertise. In addition, the two County Governors, the Norwegian State Railways and the Road Administration are involved in the land use project's group (Arealprosjektet, 2007).[22]

Table 4. 5 below shows the traditional Norwegian model and the shaded areas show how the ATP programme is different from it. The shaded areas show the competencies that are decided on by the ATP steering committee in the transport project. In addition to the shaded areas, a transfer from the national government should have been added. This is the Public Reward Fund. However, it is not easy

[19] http://ec.europa.eu/europeaid/where/latin-america/regional-cooperation/urbal/index_en.htm

[20] "Junction South" consists of the same people and municipalities as in the transport project. The counties do not participate in this forum.

[21] Arealprosjektet 2007. *Vedtatt Planprogram. Arealplanen for Kristiansandsregionen.* [Agreed Planning Programme. Land Use Plan for the Kristiansand Region].

[22] Arealprosjektet 2007. *Vedtatt Planprogram. Arealplanen for Kristiansandsregionen.* [Agreed Planning Programme. Land Use Plan for the Kristiansand Region].

to place this in the table, as it may be used for different policies, e.g. public transport services as well as pedestrian and bicycle lanes.

The ATP committee meets about nine times a year, as does the transport project group. The land use project group meets every second month.

Although the ATP programme is not a permanent institutional arrangement, and it has not yet been decided whether the land use plans will be compulsory or not, we characterise it a regional governance model. During the pilot period this model represents a fourth level of administration – a level in addition to municipal, county and national levels.

When discussing the consequences of a permanent fourth level, Fimreite and Aars (2005) argue that this level will enjoy a high degree of independence and lack of control by the municipalities and counties. This lack of accountability implies a democratic deficit.[23] The representatives do not have a regional constituency. They are, however, elected in municipalities and counties whose interests they represent. They are indirectly elected, and in order to be re-elected, the politicians will have to bring the interest of their electorates to the new regional level and balance this with the common regional interest.

Antagonists of network governance tend to argue that networks are undemocratic because private stakeholders are included in decision processes to a larger extent than in more hierarchical governance – or rather in network governance, private stakeholders are included to a too large extent. Not many private stakeholders participate in the ATP programme. The private bus operator has attended some meetings, but does not enjoy decision-making authority. The bus operator has a contract with the Public Transport Authority.[24] The ATP committee only decides on public transport services for which the project received extraordinary funding through the Public Reward Fund.

[23] An evaluation of the ATP programme by Langeland (2006) finds that several of the actors in the regional cooperation argue that there is a democratic deficit. This opinion is based on the fact that the small municipalities only have one representative each on the ATP committee, while Kristiansand has 6 representatives. At the same time they accept that Kristiansand as a city and with the largest population should be more heavily represented.

[24] The Public Transport Authority was Vest-Agder County until 1 January 2008, when the city of Kristiansand also became a public transport authority.

Table 4.5 The Norwegian Planning and Transport Model (same as table 3.1). The shaded area shows the competencies that are decided on by the ATP committee in the transport project. The green shaded area shows the areas and players which the land use project aims to influence.

	The National Government	Counties	Municipalities
Land use	• Planning and Building Act • National Policy Guidelines for coordinated land-use and transport planning (not binding) • Decides when counties object to municipal decisions (Ministry of Environment)	• Policy guidelines for land use in the municipalities (not binding) • County plans • The right to object to municipal plans	• Municipalities' land use plans (binding) • Regulation and development plans (binding)
Parking policy	• Regulation on public parking and parking charges (FOR-1993-10-01-921)		• Parking policy, charges, residence zones, regulations of parking areas
Public transport	• Passenger transport on trains (Norwegian State Railways, operator owned by the Ministry of Transport and Communications) • Railway infrastructure (the Norwegian National Rail Administration, infrastructure agency owned by the Ministry of Transport and Communications) • Vocational Transport Law (LOV-2002-06-21-45) • Transfer lump sum to the counties	• Concessions and subsidies to local public transport with the exception of railway • Concessions to coaches that cross county borders	• Regulations of areas for public transport infrastructure
Pedestrian and bicycle lanes	• Along national roads	• Along county roads	• Along municipality roads
Roads	• Investment and maintenance funds for national roads (Ministry of Transport and Communications) • Planning and maintenance of national roads (Norwegian Public Roads Administration) • Road Act	• Investment and maintenance funds for county roads	• Investment and maintenance funds for municipal roads
Toll rings and toll roads	• Decide on local initiatives and may contribute with extraordinary funding • Road Transport Act	• A local initiative by municipalities to introduce a toll ring or cordon requires the affected counties' acceptance	• Municipalities decide in consensus to introduce a toll ring or cordon

A private parking company has also been invited to some meetings to give information. In addition, the transport and land use project groups sometimes arrange seminars to which interest groups are invited. These are informal meetings and there have only been a couple of them. One was about industrial areas and was very popular.

Furthermore, the city Kristiansand has initiated a city forum which includes the business community. Through this forum the ATP exchanges ideas with commercial interests. According to one of our interviewees, this exchange of

knowledge makes it easier to cooperate with commercial interests. It makes them understand that a longer pedestrian street, for example, may also support commercial interests.

4.3 Land use and transport planning in the Kristiansand region

We suggest that there is a gap between intentions as set policy goals and the results described as specific policy implementation that would satisfy the intentions of the substantial integrated land use and transport planning. This implementation would then aim to reduce transport demand, encourage modal shift and improve public transport. We also suggest that this gap is influenced by the way in which the regional level is organised. The national goals and planning requirements for integrated land use and transport policy were described in chapter 3 and section 1.2. In this section, the goals in guidelines, political documents and statements will be described.

4.3.1 The national government's goals for integrated land use and transport planning

National Policy Guidelines for coordinated land-use and transport planning lay down goals such as increased concentration in already consolidated areas. The guidelines recommend that public transport as an environmental and efficient alternative of transport should be provided, where the population justifies this. Municipalities and counties should organize planning so that an integrated spatial development and transport policy is achieved. This should be included in the cooperative work already accomplished and regulated by law. The guidelines also recommend that the county should play a central role as initiator in the integration policies. Moreover, they suggest cooperation across county borders where this is necessary.

The aim of combining investments and maintenance in the transport sector with environmental concerns can also be found in national transport policies (NTP 2002-2011). The *National Transport Plan* suggests road pricing, rush-hour tolls and parking regulation in combination with the "best possible" organisation of environmentally-friendly transport. It also introduces an alternative institutional organisation of transport (NTP 2002-2011). The aim of this alternative is to achieve integration of land use and transport policy in city areas and more efficient spending of resources across administrative levels within the transport sector. The alternative trials will also highlight whether organisational solutions than today's organisational structure may meet environmental and transport flow challenges in a more continuous and efficient way.

4.3.2 Regional goals for integrated land use and transport planning

Two counties participated in the ATP programme. Four of the six municipalities and the city of Kristiansand are part of Vest-Agder, while two municipalities belong to Aust-Agder. Vest-Agder appears to show more interest in the ATP programme than Aust-Agder, and, in its plans, Vest-Agder has elaborated more

on topics of integrated land-use and transport policy than Aust-Agder has. We have looked at both counties' plans, but pay greater attention to Vest-Agder in this part of the report on goal description than Aust-Agder.

4.3.2.1 The Vest-Agder County Plan

The *Vest-Agder County Plan* gives strategies and direction on how to develop the county. Addressing urban centres and conurbations, the plan aims to reduce noise and pollution from transport, provide well-run public transport services, and make walking and bicycling more popular (Vest-Agder County Plan, 2002:25). The urban centres are to be strengthened through increased housing. Green areas and play grounds for children, however, will not be reduced.

One of the greatest challenges today is to reduce sprawl around conurbations. The county needs integrated land use and transport policy. According to the County Plan, concentrated construction areas will lessen the need for transportation and support efficient public transport. In order to conserve green areas, taller buildings may be constructed. Urban centres require a network of bicycle lanes (Vest-Agder County Plan, 2002:27).

The county wants an environmental urban structure, decreased physical dispersion of land use, reduced car dependency, and accessibility to trading, cultural, and service centres for people without access to a car (Vest-Agder County Plan 2002:29).

The plan includes a summary of the *Vest-Agder County Plan for Transport.* This plan highlights sustainability, traffic flow and accessibility as key words in Vest-Agder's transport policy. If conflict arises between different transport goals, first safety and then environmental issues are to be prioritised. Vest-Agder also argues that these goals are dependent on different measures which the county does not influence. Thus, cooperation is crucial (Vest-Agder County Plan, 2002:34).

Vest-Agder identifies parking policy as one measure of integrated land use and transport policy that may make transport more environmentally-friendly. It mentions other measures such as regional land use plans, the bus metro in Kristiansand, and environmental requirements in competitive tenders of local public transport (Vest-Agder County Plan, 2002:34).

For public transport, the County Plan suggests different reasons for public transport services in different parts of the county. Public transport will be prioritised where its environmental and safety effects are greatest. This means that the region of Kristiansand and the county's trunk roads are public transport priorities, and land use policy should be adapted for good public transport services (Vest-Agder County Plan, 2002:35).

According to the County Plan, it will be necessary to combine toll roads or toll cordons with parking restrictions. The county will invite the municipalities to cooperate on this issue. The county will also discuss road pricing as a tool.

Furthermore, the county wants to continue regional cooperation in different forums for decisions on funding for necessary infrastructure. The standard of the county's trunk road is not satisfactory. Hence, transportation costs are too high and the risk of accidents increases. Road toll projects could be initiated (Vest-Agder County Plan, 2002:35).

4.3.2.2 The Vest-Agder County Plan for Transport 2002-2011

Vest-Agder has drawn up a County Plan for Transport 2002-2011 which is intended to enable a broader discussion on transportation matters than is possible in the county plan. The following goals are the most important in the county's transport plan: (a) safety, (b) environmental transportation, (c) efficient transport and, (d) accessibility (Vest-Agder County Plan for Transport, 2002:20).

Integrated land use and transport policy should contribute to achieving the second goal of environmentally-friendly transport. According to the County Plan for Transport, experience shows that integration is poor. Locations are affected by the market, and houses are built in small conurbations over time. Often these conurbations do not have the necessary population to justify public transport. In addition the county has allowed dispersed construction in large parts of the county (Vest-Agder County Plan for Transport, 2002:48). Although this is not in accordance with the National Policy Guidelines for coordinated land-use and transport planning, it is not easy to change or limit construction areas that have already been decided on.

Vest-Agder's visions are better air quality, reduce noise problems, and limited environmental incursions. Its goals are to reduce the need and extent of transport, increase the share of environmentally-friendly modes of transport and protect against pollution, noise and other environmental disturbances from transport.

The county admits that new technology's contribution to reducing emissions cannot compensate for the increased number of cars and a more efficient usage of cars. In Kristiansand particle emissions from vehicles exceeded the limits for local air quality in 1998 and 1999.

Vest-Agder will localise all construction projects within the borders of an already existing conurbation. It will aim at 100 percent bus mobility, high frequency and a high quality service for the "metro bus" in Kristiansand, and direct city development linked to stops along this bus service. Furthermore, it will allow cars carrying at least three individuals to use public transport lanes, introduce road pricing and parking restrictions.

One strategy that Vest-Agder will follow is the ABC-method, where the level of public transport service is planned in accordance with a location's concentration of industry. A-locations will have high quality public transport and highly-regulated parking. B-locations will have high quality public transport and relatively high accessibility for cars. C-locations will have high accessibility for cars and parking provision, and no public transport requirements.

Public Transport in Kristiansand

The National Transport Plan aims to transfer individuals from using private cars to using public transport. Vest-Agder defines a less ambitious goal: public transport shall "absorb" the expected growth in traffic.

Public transport has different functions and reasons in different parts of the county. The overarching goals of public transport in densely populated areas are safety, sustainability and transport flow. In less populated areas the goals are welfare and mobility for disabled people, and robust regions for living and working. Ambitious public transport system goals apply mainly to Kristiansand.

The following table (Figure 4.2) shows the county's goals and strategies for public transport services in Kristiansand and the Kristiansand region.

4.3.2.3 The Aust-Agder County Plan

The Aust-Agder County Plan 2004-2007 states that the county will attend inter-municipal cooperation meetings where the municipalities want such cooperation (2003:16). It states that sustainable development is a crucial element in county planning (2003:6), and that Aust-Agder should have efficient and safe traffic arteries which include the principles of sustainable development (2003:28). However, the plan is very brief and does not specify how this goal should be implemented. It aims for a continuous public transport system where the focus is on people's travel needs, in order to increase the public transport share of the market. It also gives highest priority to upgrading and extending of the E18 trunk road E18.[25]

4.3.2.4 Location of retail trade in the county planning documents

The County Sector Plan (2003)[26] is supposed to supervise the local authorities when developing their local land use plans. The plan is not binding, but provides a tool for objections to local land use plans. This implies that municipalities should follow the County Sector Plan.

The County Sector Plan replaces the *National regulation for the temporary cessation of establishment of retail centres outside city centres and metropolitan areas* (1999)[27] which was introduced in order to limit or ban large-scale retail stores and malls, particularly in areas outside city centres. The intention of the law, which now has been rescinded, was to protect existing local retail districts and to prevent urban sprawl and automobile dependency.

[25] These goals are specified and their status is defined in "Status for implementation of initiatives in County Plan 2004-2007 [Status for gjennomføring av tiltak i Fylkesplan 2004-2007]."

[26] Vest-Agder fylkeskommune 2003. *Fylkesdelplan for senterstruktur og lokalisering av handel og tjeneseter i Vest-Agder* (Vest-Agder Sector Plan for Location of Retail and Trade).

[27] Department of Environmental Protection 1999. *National regulation for the temporary cessation of establishment of retail centers outside city centers and metropolitan areas*. Translation: Norway's Retail Business Size Cap, http://www.newrules.org/retail/norsize.html

Figure 4.2 Goals in the Vest Agder County Plan

Kristiansand

Superior goal	To arrange for an increased share of public transport. The growth rate of walking, bicycling, and public transport shall be as large as expected traffic growth. Hence, public transport shall enhance environment, safety, and trafficability
Specific goals	Kristiansand has to prioritise public transport when planning in accordance with the planning and building act, thereby decreasing the need for transportation and strenghten the basis for high quality service Public transport shall be given vantages on the cost of private use of cars The level of service shall make it profitable to choose public transport rather than private car Terminals and joints shall satisfy passengers' need and valuation of comfort, information and service
Strategies	- Restrictive parking in Kvadraturen which may finance higher quality public transport. The Kvadraturen plan introduces increased parking prices and less parking possibilities. To introduce taxes on free parking at working centres or abolish taxes on public transport payed by employers. - Road tolls and road pricing may limit traffic growth. - Land use and transport planning: design of infrastructure, priority of buses at traffic lights - A high quality bus service such as the bus metro concept - Concentration of trade, culture and service institutions in Kvadraturen - Public transport lanes - Restorations of stops - Use of surveys of demand and passengers' preferances - Dynamic fare policy

Kristiansand and its neighbouring municipalities

Goal	Public transport shall increase its share of the commuting transport from the centres of Soegne, Songdalen, and Vennesla to and from Kristiansand

The objective of the law was to provide stronger regional direction for the establishment and expansion of large retail centres. The intent was to strengthen existing downtowns and metropolitan areas, to avoid development leading to unnecessary urban sprawl and to prevent increased dependency on automobiles and diminished access for persons without access to automobiles. The long-term objective was to achieve more buoyant and robust development of cities and metropolitan areas.

It stated that, without the consent of the County governor, it was prohibited to begin the process of building new retail centres more than 3000 m^2 in area or to expand existing retail centres resulting in a total area exceeding this figure. "Retail centres" are defined as retail establishments housed in separate buildings or building complexes established and running as unique entities, as well as sales units requiring customer or membership cards to participate.

The County Sector Plan uses the same definition and adds further categories: (1) categories based on the market are local centres, area centres, region centres; (2) categories based on location are centre location, fringe location, town/neighbourhood centres, external centres (e.g. Soerlandsparken).

The goals of the plan are the following:

- to provide for a more environmentally-friendly city and city-centre structure by reducing car dependency and providing environmentally-friendly transport modes including bicycles and walking, and limiting land use, including the physical spread of cities and towns
- to enhance the role of the urban centre as a meeting point for trade, services and culture, and protect existing centre areas from too much competition from shopping centres on the outskirts
- to ensure good accessibility to trade, services and culture for persons without access to a car, and in accordance with Universal Design
- to ensure that shopping centres remain a part of the public space with free access to practice legal activities and rights
- to give the retail industry predictability and a framework suitable for the market
- to develop Vest-Agder as an attractive and diverse county that remains strong in competition with other regions

Strategies in order to achieve this are integrated land use and transport planning which also takes soil protection into account; not establishing new centres unless a need can be proved and locating transport-generating businesses "rationally" in accordance with the transport network.

4.3.3 The ATP programme's goals

The ATP programme aims at coordinating policy instruments of spatial development and transport in accordance with joint priorities of the participating municipalities and counties. The overall goal of the ATP programme is to meet the transport challenge of the region and to integrate environmental considerations and transport services in a more efficient and sustainable manner (Action Programme 2005-2007; Action Programme 2008-2009).

In its Action Programme 2005-2007, ATP specifies the following goals: (a) the growth of car usage shall not exceed the growth of the population, which is about one percent; (b) bus passengers are to increase by 10 percent and by 20 percent on the Metro routes; (c) bicycle transport to increase by 20 percent; (d) more people walking to work and to school; (e) the number of fatalities resulting from road accidents to decrease.

The Action Programme 2008-2009 formulates the following goals: (f) better integration of the region's land use and transport policy; (g) more efficient public use of resources across administrative levels; (h) more "room" for local priorities; (i) more people choosing environmentally-friendly transport modes; (j) accessibility for everybody (universal design); (k) increased traffic safety; (l) enhanced communication across municipality and county borders; and (m) the development of the Kristiansand region as a traffic node in a national and international context.

The goals for the second phase (2008-2009) are similar, and at the same time less ambitious than in the first phase (2005-2007) of the transport project. The Action Programme 2008-2009 formulates a new policy goal: "more room for local priorities." The quantitative goals of increased passengers using public transport e continue, but have decreased. This may be due to "trial and error" and adjusting goals to become more "realistic." Another aspect is that the better the starting point is, the more difficult it is to enhance the service further, i.e. if a high share of the population uses local public transport, it is more difficult to increase the number of passengers, compared to when hardly any services exist and the passenger share is small.

The goal of car usage growth that shall not exceed the population growth of about one percent is retained, but extended to 2010. The increase in bus passengers should be 15 percent higher in 2010 than in 2003, and 30 percent higher on the Metro routes. The percentages are higher than the ones in the former Action Programme, but not when taking the period of time into consideration. The travel time on the Metro routes is supposed to be reduced by five minutes from outer areas into the Kristiansand centre between 2003-2010. Another aim is to increase bicycle transport by 30 percent from 2003-2010. The goal of more people walking to jobs and schools remains the same. The goal of the number of fatalities or serious injuries due to road accidents is quantified. It is supposed to decrease by 20 percent in the period 2006-2009 compared to the period 2002-2005.

4.3.4 The ATP transport project's priorities

The transport project will work with the following elements (Action Programme 2004):

- Public transport: bus mobility and enhanced public transport services by creating a more efficient route structure with higher frequency on fewer routes; fares; design; material; new contracts with bus operators; new technology for information and ticketing.
- Establish Park and Ride in every important node, and Bike and Ride where this is necessary
- Construct pedestrian lanes
- Safety: introduce measures to prevent car and pedestrian accidents
- Parking: change minimum requirements for parking to maximum requirements; limit free parking for employees among the project's partners and offer compensation; increase parking fees in the city centre to the level of public transport fares for distances to outskirts areas
- User payment: consider tolls in the Transport Package
- Implement measures against noise and local pollution such as restricting unnecessary heavy traffic and implementing charges for using studded tyres
- Enhance environmental modes of transport through information campaigns

4.3.5 The ATP land use project's programme

The land use project's main goal is to provide for sustainable development and balanced growth in the region (Arealprosjektet, 2007[28]). This will be ensured by a common superior land use plan for the period 2009-2050. This plan will include a common regional plan for location of residential areas; a common regional plan for industry location; a green area plan; a long-term uncharted territory border; a long-term agricultural border; a map of land use status of the shoreline; a common regional centre structure plan and a strategy for regional priority areas.

The project will register green, agricultural, industry, centre structure, residential, and cultural areas as well as public transport routes and frequencies. When this mapping is carried out, alternative construction strategies will be considered according to the following criteria: seizure of green areas; seizure of agricultural soil; conflict with cultural monuments and areas; accessibility; need for infrastructure; transport costs; possibilities for environmental travel patterns; and risks and vulnerability. Analyses will be supported by a GIS-based model.

[28] Arealprosjektet 2007. *Vedtatt Planprogram. Arealplanen for Kristiansandsregionen.* [Agreed Planning Programme. Land Use Plan for the Kristiansand Region].

4.3.6 Summary: key issues in the Kristiansand region

Six municipalities (seven on land use matters) and two counties make up the Kristiansand region. They are authorised to cooperate on transport and land use matters with the aim of meeting the transport challenges of the region and integrating environmental considerations, i.e. reducing growth of road transport. In addition to an allocation of some of the players' own resources, the Public Reward Fund contributes to resources. Topics that the players discuss and decide on include regional and municipal road construction and maintenance, bicycle and pedestrian lanes, public transport supply, park and ride solutions and restrictive measures on car use. Also, a common superior land use plan, that has not yet been decided upon, will regulate the extension of existing and new shopping malls, industrial and residential areas.

4.4 How does regional governance contribute to integrated land use and transport planning in the Kristiansand region?

We have argued that the institutional organisation of land use and transport policy in the Kristiansand region has been altered in order to achieve integration of the two policy areas. In this way, fragmentation is reduced. Whether the new regional cooperation has resulted in greater achievement of goals will be discussed in this part of the document.

We will start with the goals specified in the Action Programme 2005-2007. *First*, the aim of growth of car usage no higher than the growth of the population has not been achieved. In 2007 the car usage growth was about two percent. The growth has decreased slightly, but not as much as the goal specified. *Second*, an increase in bus passengers of 10 percent was achieved on December 31 2006 and 20 percent on the Metro routes has almost been achieved (Action Programme 2008-2009:6). The increase was 18.1 percent on the Metro routes. *Third*, an increase in bicycle transport of 20 percent has only partly been achieved. Bicycle transport had increased by 10 percent from 2003 to end of 2006. *Fourth*, whether more people walk to jobs and schools is indicated, as the surveys that have been carried out have not measured this sufficiently. *Fifth*, the number of fatalities due to road accidents has decreased.

The results show that the project so far has succeeded with public transport services, but has not succeeded in reducing car growth. Our work is not aimed at analysing the different explanation variables for increased traffic growth and increased shares of public transport. It is however important to mention the increased road capacity of the E18, and that the ATP project considered that the high growth of road traffic in the region in 2004 was due to the opening of the new E18 stretch west of Kristiansand. The explanation for the results are described as achievements in reducing the gap between the dimensions of integrated land use and transport policy on the one side, and the results in giving priority to measures that are perceived to have an impact on road transport on the other. Table 4.6 illustrates the implementation of goals in the regional planning process. The results from the dependent variables such as budgetary priorities, parking restrictions, priority for public transport and a concentrated location of trade and residential areas the result are, as we will discuss below, ambiguous.

4.4.1 The ATP project as a coordination arena for integrating land use and transport planning

The main achievements of the ATP programme have been the establishment of a new arena for regional coordination. This has resulted in an increased regional focus on location issues, improved conditions for discussions on restrictive measures, enhanced public transport services and higher priority of soft measures in the Transport Package for road investments. The observations in the sections below are mainly based on interviews and document studies.

4.4.1.1 New arena for regional coordination

The ATP programme has established a new forum for discussions and decisions. According to those that we have interviewed, the members have become more understanding, insightful, and conscious about their choices on integration of land use and transport policy. The players meet each other regularly, they get to know each other and manage a common pool of funding. This has reduced conflicts between the city (Kristiansand) and its county (Vest-Agder). The municipalities in the region are satisfied by the fact that the two counties with different county plans are involved in developing a common land use plan. The participants talk, to a large degree, positively about each other's organisations and seem to agree on the success of the ATP programme, most importantly because it has created trust. Whether ATP has been a success in other matters such as shopping malls and restrictive measures is disputed.

Some of the members argue that the ATP programme has been crucial in creating trust, and call it a "training camp." It is a term with associations that are not serious, but may be useful in order to learn or prepare for something serious, i.e. training camps are used to enhance development. Regarding the ATP programme as a training camp may have different consequences. On one hand, it may damage the project's image to be viewed only as "training" and not for "real." On the other hand, it may strengthen goal achievement by decreasing barriers to cooperation and diminishing antagonistic behaviour. A training camp may make unconvinced players more willing to try, as participation may be reversed or decision does not seem that serious.

The ATP programme may be called a training camp because it is based on a short-term contract which will be phased out in 2009. Some view the fact that it is a short-term arrangement positively, as they see a democratic deficit due to the reduced powers of the municipalicy stakeholders in the decision-making process (Fimreite and Medalen, 2005). Knowing that the programme is only a pilot, opponents to the programme may have been willing to try it out. However, others argue that it would have been easier to succeed, if the organisational arrangement had been a reorganisation and not a trial.

Other tasks that the ATP has carried out are different campaigns for safety and to create environmental incentives (Riseng, 2007). These include campaigns for using lights when riding a bike, sales of bicycle helmets at reduced prices, making more people ride a bike or walk to work, distribution of a yearly bicycle magazine

to every household in the region every spring, and initiatives for bicycle parks and shower facilities at work.

Another aspect that should be mentioned is that the members make a list of projects that are being carried out in each municipality and vote for who will receive the most funding from the common pool. Other municipalities will receive more next time. Decisions are being made politically rather than on cost-utility-analyses. The latter would have prioritised Kristiansand more than has been the case. Small projects such as bus stops and pedestrian and bicycle lanes in rural areas have been prioritised with the introduction of ATP. Some of these projects would not have been carried out without resources achieved independently of Kristiansand. In this sense, Kristiansand may be viewed as a nice "big brother", but not when it comes to public transport. Also, Kristiansand depends on its surrounding municipalities to achieve regional strength.

4.4.1.2 Absence of land use planning and location conflicts

As long as decisions in the land use project are not binding, there will be a lack of integration of land use and transport policy. However, the same political committee decides on land use and transport policies around the same table. They share their experiences and challenges, and get to know each other. Municipal representatives argue that the enhanced possibilities for discussion strengthen the work.

Some of the representatives that we interviewed in May 2007 expected conflicts to arise "when things get serious." This was especially aimed at the decision-making process of the regional land use plan. Conflicting interests, particularly regarding sprawl of residential areas, may arise. However, in November 2007 when we carried out further interviews, expectations of future conflicts appeared to have diminished. On the contrary, the representatives with whom we spoke argued that necessary steps towards further agreement were being taken. Potential areas of conflict, such as changes of municipal land use plans decided on years ago, seemed to be closer to resolution in December than in May. In November, the municipalities seemed to be willing to consider their land use plans according to ATP advice. However, no decisions that show this willingness have actually been taken.

According to representatives of municipalities that we have spoken with, soil protection has always been a more important criterion than integration of land use and transport planning. Locations were directed to areas that were not already being cultivated, for example, on top of a hill. ATP gives land use planning another focus.

So far there is no regional land use plan, and it is uncertain whether it will be binding. The land use plan is still in its preparatory phase. Thus, it has not yet had any crucial influence on priorities in local land use planning. However, through discussions with other municipalities and emphasis on each municipality as a part of a whole region, the municipalities have expressed a willingness to reconsider earlier land use plans. They may admit that locating a residential area far away from the municipality centre and from commuter routes to Kristiansand may not

be a good solution in a regional perspective. It is too early to conclude whether this is an effect of the land use project that will actually take occur.

The transport project, however, has experienced situations in which municipal interests have prevailed. One example is the planning of a new bus route in Soegne for which road investments were necessary. A two kilometre long road connection would increase the public transport service in certain areas as two routes could be combined. In order to construct the road extension, a change of the municipal land use regulation was necessary. The local population protested against this, and the road extension was not built.

4.4.1.3 Location of IKEA with extension of the Soerlandsparken

A recent decision-making process illustrates a potential for conflict. The decision on the location of Soerlandsparken shows the ability of the region's local politicians to find consensus, but a larger Soerlandsparken does not enhance integration of land use and transport policy. Too many parking places will be built and too many retail units will be placed outside the city centre with no or limited public transport provision. The ATP secretariat hopes to cooperate with Ikea about public transport services to Soerlandsparken.

The participants disagreed on where to locate large commercial retail units such as IKEA, Bauhaus and Smart Club. In the end they decided to use Soerlandsparken east of Kristiansand, outside the city centre of Kristiansand or municipal centres for this development.[29] Until the land use project was introduced, such location debates have been included in regional commercial plans for the county, and they will now be included in the regional plan for land use development which will be finished in 2009.

The ATP programme supported the choice of Soerlandsparken for further development of car-based shopping malls. Soerlandsparken was located before the introduction of ATP, but the decision to give Ikea, Bauhaus, and Smart Club land there as well is part of the land use project. The ATP committee decided to support this decision despite the fact - and perhaps also because - its regional plan has not yet been developed. There was no local opposition to the location of further retail units next to the Soerlandsparken shopping centre. Hence, so far no large conflicts have arisen within the ATP programme, although conflicting aspects such as lack of commercial space have been discussed. The municipalities have received letters from commercial interests such as Smart Club, and want to give them an answer before the regional plan is finished. They argue that a common plan is not intended to prevent development, and agreed on expanding one commercial area, Soerlandsparken, for further development. Until the

[29] The Vest-Agder County Sector Plan (2003) lays down that activities that are particularly space-demanding, have relatively seen few employees or customers, and are dependent on cars for freight and/or transport of individuals should be located at the Soerlandssenteret. It also gives Soerlandssenteret the status of a centre that "relieves" the city centre of Kristiansand, and Soerlandssenteret then has the opportunity to complement the role of the city centre of Kristiansand as a regional centre.

regional plan is developed Soerlandsparken will be the answer to commercial inquiries.

Soerlandsparken is of more political than geographical interest. With the opening of Ikea, Soerlandssenteret will become one of Norway's largest shopping centres. The shopping centre will become a "magnet" for the whole region. People will drive from municipalities further away (i.e. Grimstad and Mandal) to this centre. It will very probably generate a high volume of traffic.

One argument against restrictive parking policies in the centre of Kristiansand is a shopping mall established outside the city centre. Overly restrictive parking policies in the city centre may result in commercial "leakage" to shopping malls outside the city. Paradoxically, the city of Kristiansand decided to establish the mall, Soerlandsparken, to "relieve" the city centre from further business. This was already decided on in the 1990s. In the aftermath, the ATP committee has agreed to develop the shopping centre further, to open the way for car-based retail activities such as the furniture giant Ikea and the building retail store Bauhaus. Politicians feared that Ikea would choose another region if Kristiansand and its surrounding municipalities were too strict on land use policies.

4.4.1.4 Reluctant to use restrictive measures

The fact that the situation descriptions differed in May and November may stem from the fact that we spoke with different representatives in May and November, and that they also represented different organisations. There are, however, other signs that show a change of attitude in the region. One such sign is discussions on restrictive measures.

While positive measures such as improved public transport service and construction of pedestrian and bicycle lanes have been prioritised, restrictive measures such as road pricing and parking restrictions have not been decided on. However, the transport project's secretary has discussed this topic, and on 30 November 2007 the ATP committee decided to investigate the effects of introducing road pricing. An investigation may seem a minor step, but from denying road pricing altogether to deciding to analyse the effects is a step that shows a greater will to approach the goal of an integrated transport and land use policy.

The ATP committee has not made much effort to change parking policies in order to meet the goal of less traffic. This is due to the fact that parking policies are not part of ATP's competencies. However, it should be mentioned that the city of Kristiansand has taken some minor steps. The price of long-term parking in the city of Kristiansand will increase by 40 percent in 2008. Some long-term parking places in the city Kristiansand will also be removed during 2008, but new ones are being provided in a car park. Parking requirements for new constructions have been changed; in the city centre of Kristiansand the municipality has decided not to increase the number of parking places beyond parking that is required for new constructions. New bicycle lanes also results in fewer parking places, but the numbers are small and relatively insignificant. The fact that 5000 of 9000 parking places are private in Kristiansand complicates the municipality's attempts to influence car use through parking policies.

Moreover, innovative parking measures that are not restrictive for car users have been introduced. Park and ride solutions have been established in Lillesand and Songdalen, for example. The main problem with park and ride is the cost of land. Land in densely-populated areas is expensive. The park and ride solutions in the Kristiansand region differ from those typical in England, for example, where there are large car parks close to public transport nodes. In the Kristiansand region parking places are being built along the public transport axis, the Metro.

Another aspect that does not create incentives for people to reduce their use of cars to travel to work is the national policy of tax-free parking at work. Public transport tickets to work are not tax-free. ATP has initiated a trial of free public transport tickets or a bike package for some businesses' employees (Project description, 2007). The costs are covered by ATP.

4.4.1.5 Institutional changes and national support for improved public transport

During the first four years of the ATP programme about NOK 50 million has been spent on public transport services. New routes have been introduced such as routes with high average speed and few stops. The Metro is one of the bus services that the ATP has improved. This bus service which runs through the city centre of Kristiansand, was introduced in 1999 (before the ATP programme began), and ATP has improved the Metro with more bus lanes and extended services at night.

There has been a discussion on whether to construct separate bus lanes through the city centre of Kristiansand. The suggestion of making Henrik Wergeland's street a bus route closed to cars resulted in an outcry from the commercial interests and was defeated. However, ATP initiated an investigation of traffic flow measures for buses. The study resulted in the recommendation of retaining current bus routes (bus ring) in the city centre with separate bus lanes, parking restrictions, no stopping restrictions in certain areas, and signal priority for buses (Hellenes, 2007).

4.4.1.6 Regionalising the local-state discussion on road investments

Another reason for calling the ATP programme a "training camp" is the size of the resources. Compared to the Road Administration's "transport package" for the next 15 years in the same region, the common ATP pool is small. The transport package consists of two phases, amounting to NOK 4 billion NOK. NOK 800 million is allocated for soft measures such as traffic safety and pedestrian and bicycle lanes. The investments in the common ATP pool amount to only 0.3 percent of the road investments of the transport package (investments in budget in Action Programme 2005-2007 are used). The "soft element" of the transport package is not included in this calculation, as the ATP committee runs this part.

Although the ATP committee runs a small project in terms of resources, it has a huge influence on the transport package. As already mentioned, it is responsible for the package's improvements to traffic safety and pedestrian and bicycle lanes. Moreover, the ATP committee formulated the application for the regional

transport package in which it commented on the national trunk roads E39 and E18. During this process, the local Road Administration acted as a "secretariat." The counties took the formal decision based on ATP's guidance. Only a few changes were made after hearings in the municipalities. One change was the decrease to the maximum ceiling of how many journeys per month through the toll cordon a driver has to pay for – from 60 to 50 journeys. This was due to the concerns of tradesmen. To sum up, ATP has had *de facto* influence on the transport package, although the committee has no *de iure* competencies over road investments.

The influence of the ATP representatives on the transport package is shown by the fact that the soft part of the package will be implemented before the road investments. It used to be the other way around. Pedestrian and bicycle lanes usually have to wait for road projects. In this package, however, the first phase includes NOK 350 million for soft measures (Sandsmark, 2006). Also, transport package revenues from the toll cordon will be spent on bicycle lanes. This re-ordering of projects is, according to ATP representatives, clearly something new and is in accordance with the guidance of ATP.

The transport package mitigates the goals of an integrated transport and land use policy. The two road investment plans for the region's national trunk roads, E18 East of Kristiansand and E39 West of Kristiansand, will not help to reduce the growth of car traffic. ATP's aim is to reduce the growth of traffic to match the population growth, which is about one percent. This failed in 2004 when the growth rate of car usage was 3.6 percent. In 2005 it was estimated to be 1.7 percent and in 2006 1.5 percent (Areal- og transportprosjektet Kristiansandsregionen, 2007; Areal- og transportprosjektet, 2006).

There is an apparent conflict between integration of land use and transport policy and national road investments that will increase road capacity, thereby increasing car usage. The representatives with whom we have spoken admit this, but in general they argue that improvements to the trunk roads are necessary. They are of the opinion that queues on trunk roads are starting to become unbearable, and that investments improve public transport service as well. Trunk roads are also important for commuters from rural areas – "it is not only about the pressure that the centre of Kristiansand experiences."

Another argument is that trunk roads are part of national needs as well as regional needs. Although the trunk roads are not part of the formal responsibilities transferred to the committee, ATP has done most of the application work for the trunk roads and local toll road revenues make road investments possible.

4.4.1.7 Lack of integration of policy instruments

As shown by the example of the huge shopping centre (Soerlandsparken) and restrictive measures, the integration of land use and transport policy has not been fully achieved. There are different explanations for this.

Important measures or policy areas are local public transport and parking policies. The municipalities remained responsible for their parking policies, and the counties retained their responsibility for local public transport. The only public

transport authority transferred to ATP was public transport services funded by the Public Reward Fund, and most of this funding was spent on public transport in the Kristiansand. Decisions on public transport services have, in other words, not changed significantly. Vest-Agder is still responsible for the public transport services in its county, and has the same resources available for the same services. Only the improved services financed from the extraordinary Public Reward Fund became the responsibility of the ATP committee. Vest Agder's body for public transport, which is part of the county and buys public transport services from private operators, thus received orders from ATP as well as from the county.

Moreover, the public transport policy did not affect the county of Aust-Agder's responsibility for public transport. However, the two municipalities from Aust-Agder also achieved better public transport services through ATP (e.g. Lillesand has a bus service to the city of Kristiansand every ½ hour which was funded by the Public Reward Fund).

It should be mentioned that on the whole, Aust Agder's public transport services do not cross the border to Vest-Agder and vice-versa. However, some buses are allowed to cross the county border.

One reason for this lack of integration of public transport is a conflict between the city of Kristiansand and its county Vest-Agder. Pushed to the extremes, the county tends to think of the city as inward-looking, while the city blames the county for not seeing where the important needs are. The city argues that such needs are in the city itself, as problems with queues and the potential to increase public transport users are greatest in the most densely populated areas. When the transport project was introduced, the two players did not trust each other and were not willing to give away their competencies, for example Vest-Agder was not willing to give away its responsibility for local public transport, as long as Kristiansand would not delegate its parking policy.

One body in particular may experience this conflict. Vest Agder's body for public transport provision takes orders from the ATP committee when organising public transport services in the city and from Vest-Agder for public transport services outside the city.

This conflict is less now than before the ATP programme was initiated. The players have approached each other through the common ground created by the new organisational structure. The fact that on January 1 2008 Vest-Agder separated itself from its public transport entity and established a stock corporation for public transport services illustrates growing trust, as the county and the city jointly own the stock company.[30] The establishment of the new public transport authority supports the argument that the ATP programme has created trust.

[30] Vest-Agder owns 66 percent of the stocks and Kristiansand city 34 percent. Each finances the company with 5 million NOK in 2008 in addition to regular subsidies from the County and extraordinary funding from the Public Reward Fund.

4.4.1.8 The significance of regional governance

Other explanations that modify the significance of regional governance are changes in environmental awareness, legal framework, the Public Reward Fund, and clever individuals who manage the programme. Hence, factors other than the organisational structure may have contributed to the results that we have found

The ATP participants have changed their attitudes towards the use of restrictive measures, but this may be due to reasons other than regional governance. There is increased environmental awareness in society in general. Local politicians also argue that the city of Kristiansand "may collapse unless more people start travelling by public transport" (Gundersen, 2007:2). Regional governance may have an influence, however, as the representatives decided on a common goal of reducing the increase in car usage down to one percent.

Also, until autumn 2007 the revenue from toll roads and cordons could only be spent on investments, and public transport investments could be funded by such tolls only when they provided a better solution to the overall transport than road infrastructure. During autumn 2007, however, the national government decided to allow the use of revenues from toll roads and cordons for public transport services.

This change of legal framework has also contributed to a change in attitude among the ATP committee members. Today's toll cordon in the Kristiansand region lasts until summer 2008. A new arrangement will be introduced and the prices will double from today's price level to NOK 20. This arrangement is intended to last for 15 years. Kristiansand's politicians are eager to renegotiate the toll cordon, in order to use 10 or 20 percent of the revenue for public transport services (Uleberg, 2007). In order to do this, Kristiansand will have to renegotiate with its surrounding municipalities and the national government.

The effects of regional governance in Kristiansand on an integrated transport and land use policy cannot be explained without considering the importance of the Public Reward Fund. This extraordinary funding for good practice plays a major role. At the end of November 2007 the ATP committee decided to investigate the effects of introducing road pricing. Kristiansand's chairman argues that "the consequences of losing NOK 15 million reward funding for good practice will be dramatic. Road pricing may be a better alternative" (Soerensen, 2007:2). Although Kristiansand's chairman (representing the Conservatives) and the deputy chairman (who is a Labour representative) promised not to introduce road pricing during the election campaign, they now argue that this may be necessary. They argue that this is due to the national government's signal of giving cities that introduce road pricing millions of kroner as a reward, while cities without this restrictive measure will receive much less.

Individuals who manage the project and not the organisational structure may also contribute to explaining the success of the ATP programme. The two project leaders for the transport and the land use project are described as competent and dedicated to the goals of achieving more sustainable transport and land use policies in the region. The transport project's leader worked, and still works, in the municipality of Kristiansand as an environmental adviser before he began working on the transport project. The leader of the land use project worked with land use plans in a different region before joining the land use project.

From the start of the transport project, there was a common will among the politicians in the region to agree: no matter how much the players disagree, they agree to try to reach agreement. This is different to other regions in Norway where the city-county-conflict has been larger (i.e. Bergen-Hordaland), as the players stand united in the Kristiansand region.

Furthermore, some of the members describe the people in the local Road Administration as "sporty" and positive, arguing that cooperation with the Road Administration would not have worked out with any other representatives. According to the members of ATP, the Road Administration is crucial due to its experience and expertise. The ATP programme may have rendered its tasks more difficult. The local Road Administration spends one man-labour year on following up the ATP programme, which is necessary due to the fact the ATP is different from the traditional system of the Road Administration. However, ATP also gives the local Road Administration the opportunity to refer complaints to the ATP committee.

Another aspect is that most of the politicians in the ATP committee represent parties that are ideologically close to each other. The conservatives are in the majority of the 17 representatives. Trust may be gained due to peoples' similarities.

4.4.2 Institutional conditions for integrating land use and transport policy

The main aim of the Kristiansand case has been to study how strengthening the regional level based on an inter-municipal agreement performed as an organisation for integrating land use and transport planning. The regional cooperation in the region has been temporary, and the scope has been limited to the land use and transport planning competencies that have been delegated to the ATP committee. The Kristiansand region shows how an institutional setting introduced into the present Norwegian administrational and legal setting may contribute to enhancing the institutional conditions for integrated land use and transport planning. In the Kristiansand region, some national policy instruments have clearly influenced the framework of the regional pilot scheme, e.g. the Public Reward Fund from the Ministry of Transport and Communications gives additional funding for public transport as a reward for good practice for better public transport and reduced car usage.

4.4.2.1 The role of the regional level in the political administrative system

According to the Norwegian planning model, the regional level, represented by the counties, plays a diffuse role in planning policy, and its role is weaker than in the other two cases, the Funen region and the Hanover region. Its role is diffuse in the sense that county sector plans are not binding – and that they do not approve the local land use plans. In the Kristiansand region, the goals of integrated land use and transport planning were in accordance with priorities at the national and regional level. We would therefore assume that the participating municipalities would commit themselves more strictly to the regional goals, and this way the alternative organisation would be crucial for successful implementation of their goals.

The role of the regional level in the pilot in the Kristiansand region was primarily to create a new arena to gather the formal local and regional stakeholders. There are several stakeholders at the regional level in conventional Norwegian land use and transport planning: counties, regional Road Administrations and the national state through national guidelines and the County Governor. There are also the municipalities acting as autonomous planning entities. They attend bilateral meetings with the other stakeholders. Several of these stakeholders were integrated in the cooperative ATP programme. However, the County Governor was not included in the committee, and the regional Road Administration attends only as an observer.

The regional level in the Kristiansand region was strengthened by the introduction of the ATP programme, but the "strengthening" is ambiguous: *on the one hand*, the ATP programme brought together the different stakeholders and their purposes related to land use planning, public transport and road investments in a common committee. This way, the participating municipalities' influence on the Road Administration was enhanced, especially due to the common pool of resources – such as responsibility for the ATP budget for transport investments and additional funding from the Public Reward Fund.

In the land use project, the municipalities and counties collaborate in order to create a regional land use plan, and thus create a new regional instrument for influencing location. Even though this plan has to be decided upon by the counties in the form of County Sector Plans, the land use project may be described as a consensus process with the aim of developing binding decisions for the municipalities. At present, an amendment to the Norwegian Planning Act is being discussed in Norway. This may indicate a stronger regional level in the Kristiansand region in the future – a regional level represented by the county, and not the ATP programme which is not a reform measure, but a pilot scheme. However, as the municipalities are actively drawing up the regional plan in a consensus-based process, the content of the land use plan for the Kristiansand region will also reflect local interests.

On the other hand, the ATP programme did not give the regional level an advantage over the centralised state authorities. Rather, the pilot scheme altered the competencies within the region by modifying the competencies of the regional players, such as the regional office of the Road Administration and the counties. Delegation of more competencies from the national to the regional level did not take place. This is illustrated by the following aspects: *first*, the responsibility for

the trunk roads and the disposal of large investment sums for the transport package for the Kristiansand region was not included in the pilot. *Second*, the Ministry of Transport actively supported regional cooperation through the Public Reward Fund which – together with the ATP programme – was intended to enhance local/regional ideas of introducing restrictive measures for car use. *Third*, the formal planning authority of the municipalities and counties remained as in the conventional Norwegian model.

The role of the participating counties is also ambiguous. On one hand, the counties participate in deciding upon the content of the regional land use plan, thereby influencing and giving consent to the content of a common plan. However, in the conventional Norwegian model, the counties can object to local plans which are not in accordance with the regional plan. This right of veto remains, even though the counties are participating in a common land use project. Also, the County Governor (who is external to the ATP project) may object to local plans. The County Governor's objections are mostly based on national planning requirements such as protection of nature and the coastline, and the guiding principles of integrated land use and transport planning.

As we expected, the municipalities' influence has been maintained after the introduction of the land use project. The following aspects may explain this: *first*, the project budget was negotiated and decided on before the ATP programme was introduced. The municipalities could bargain and assess the benefits and costs of participating. *Second*, cooperation was based on an inter-municipal agreement, in which the municipalities had bargaining power through opt-out options. *Third*, the planning authority of the municipalities was not altered through the project, and the land use plan which is being developed by the land use project, and the County Sector Plans will be a starting point and foundation for the regional planning efforts.

The question remains open whether location decisions made in the pilot phase would have resulted in different outputs without this pilot. One reason for this may be that the municipalities respond to private regulation proposals. The development of a specific residential or commercial location project may not necessarily have been brought up as an issue at the regional level. Furthermore, the decision process could be divided into the professional considerations of the administration and the political decision made in the planning committee of a municipal assembly. The regional arena (i.e. the ATP committee and administrative project groups) mediates the discussion on location priorities. The municipalities, however, have the authority to decide on local land use plans. Local politicians who are not represented in the ATP committee may make decisions that undermine regional priorities.[31]

A more general discussion about the necessity of revisions to preparatory land use plans at municipality level has been brought into the project. This is also the case for important location issues such as Soerlandsparken.

[31] A recent objection from the County Governor of Vest-Agder concerning a disintegrated commercial and residential area of Årefjær brygge within the borders of Kristiansand municipality. Here the administration of Kristiansand municipality clearly recommended rejecting the proposals, but the politicians supported it unanimously (Kristiansand kommune, 2008).

4.4.2.2 Division of competencies between administrative levels

The ATP programme established the ATP committee as a new consensus-orientated level for policy decisions. At the same time, a new administrative regional arena for land use and transport planning was created through the ATP project groups and secretariats. This new institutional setting was expected to improve the conditions for addressing problems, formulating policies and coming up with solutions and priorities to facilitate the integration of land use and transport planning. As participants, it was also expected that the municipalities would play an important role in the formulation of different alternatives for land use planning.

In accordance with our initial assumptions, the new division of competencies as stated in the mandate for the ATP programme do seem to favour the municipality level. The municipalities are still retaining their land use planning authority as the regional land use plans are only meant to be indicative and decided upon by the local bodies. The restrictive measures are, furthermore, still in the hands of the municipalities. At the same time, the transport project has given the municipalities increased influence on public transport and road investments through participation in the project.

The ATP programme alters the situation for the county. In the conventional Norwegian planning system, the counties make plans that are superior to local plans. The degree of hierarchy may vary as some counties work more closely with their municipalities than others. In addition to having counties which decide on county plans, the counties in the ATP programme also participate with their municipalities in a regional deliberative decision process. Together the counties and the municipalities will create a regional plan, which in the end will have to be decided on by the counties as in the conventional planning system. Compared to other Norwegian regions, the ATP programme gives the municipalities a great degree of influence on the content of the county plans.

The expansion of Soerlandsparken illustrates a case where the county chose not to object, even though the expansion would imply more car transport, contrary to the goals of Vest-Agder's retail trade plan.

Before the ATP programme was introduced, there was some tension between Kristiansand and Vest Agder over public transport. For instance, Kristiansand criticised the county for insufficient funding for public transport, while the county criticised Kristiansand for the lack of public transport priority in the city and for not implementing a restrictive parking policy. The interviews revealed, however, that cooperation has improved due to the ATP programme.

We described the Kristiansand pilot scheme as a administrative trial for a fourth administrative level that created an intermediary link between the municipalities and the counties in the designated region. With regard to the land use project, the county wanted to include advice on land use priorities at the local level as an integral part of the ATP programme. The municipalities, however, were opposed to this. In this setting, the role of the project secretariat could be highlighted, as it created new arenas for dialogue and trust among the participants. In the interviews, the new institutional conditions for co-operation were highlighted. *First*, the ATP programme enabled professional dialogue between the land use

planners in the municipalities. *Second*, the cognitive setting of the ATP committee and project secretary was a new one, as the programme itself presupposed the necessity of regional problem solving above local problem solutions. *Third*, the small size and integration of the two ATP secretariats enabled trust and close cooperation on the specific tasks of the programme.

4.4.2.3 Policy instruments available at the regional level

As described above, the ATP programme has strengthened the regional level. *First*, the transport project includes decision on investment and maintenance priorities along municipal and county roads. *Second*, the ATP committee prioritises how to spend the Public Reward Fund. The land use project, on the other hand, aims at influencing the municipalities' land use policy.

The regional influence on restrictive policies such as parking policy and the designation of traffic calmed zones has, as agreed by the participating actors, remained in the hands of the municipalities. As some of the representatives said, it would not have been wise to include restrictive measures in the pilot scheme, as it is a trial and not a reform. Decisions on controversial policies such as restrictive measures could have endangered the whole programme.

However, a slow reserved shift of discourse toward restrictive measures could be observed. Several of those interviewed used the Public Reward Fund to explain the increased attention and party acceptance of using restrictive policy instruments to give priority to public and non-motorised transport. Local competition between the retail trade centre of Soerlandparken and the commercial centre of Kristiansand further complicated a shift of municipality preferences on restrictive instruments such as with the parking policy.

The project did not directly aim at influencing the municipalities' preparatory and binding land use plans. The new policy instrument of the land use project is the regional land use development plan that will influence future land use plans at the local level through regional guidelines and learning processes, and through professional dialogue. It seems that the ATP programme has established trust among the participants, which again may open the way for further cooperation on more policy instruments, and approach the goal of integrated land use and transport. This is a result of choosing a deliberate scheme of cooperation based on agreement and transmitted decision powers, which again has enhanced trust.

4.4.2.4 Division of competencies between sectors in the region

As earlier mentioned, the integration of competencies in respect of public transport and roads may lead to less fragmentation within transport policy decisions. We assumed that institutional integration of competencies of public transport, road planning and regional planning as units in regional administration would facilitate integrated land use and transport planning at the regional level. The Kristiansand region has no permanent administration, and the division into a transport project and a land use project could be described as two disjoint projects with a common ATP committee.

The study of the Kristiansand region, however, showed that inter-municipal cooperation on land use and transport planning improved the institutional

conditions for integrating land use and transport policies. *First*, the ATP programme in Kristiansand was a relatively small organisation with a competent project secretariat, where both the transport project and the land use project were located with the administrative staff of Kristiansand. This enhanced a common understanding. *Second*, before the ATP project, contact between the regional level, represented by the Road Administration and the counties was dominated by bilateral meetings with the municipalities.

In the pilot scheme, most of the contact is common to the other participants in ATP, and is based on common budgetary priorities. This leads to new working conditions for the professional staff within the counties and the regional Road Administration. The ATP programme is dependent on the professional expertise of the Road Administration which acts as an advisory participant. The Road Administration allowed one new man-labour year to fulfil the co-ordination commitments within the project. Furthermore, the Road Administration Director was involved in practical and professional discussions in the ATP committee. Its role has changed, and this may be illustrated by the following quotation: "Formerly, the Road Administration decided upon the road project and then this was how it was to be." Today it is dependent on the ATP committee. Whether this implies a reduction of the Road Administration's influence is an open question, as it maintains substantial influence on the priorities.

Third, the ATP programme has probably contributed to the establishment of the new Public Transport Authority, which is now owned by the city Kristiansand and Vest-Agder County. Until this stock corporation was introduced in January 2008, the Public Transport Authority was part of the county.[32] The new Public Transport Authority, as an independent organisation, has "looser ties" to the politicians. Its establishment was looked upon as a positive development by some stakeholders. As an owner, the city has more influence of public transport than it did previously. This may be seen as a consequence of the "learning process" through the ATP programme and insight into the necessity of integrated public transport across the region.

Public transport policies remained a policy area for the county. Only the public transport supply which was funded by the Public Reward Fund was decided upon by the ATP committee. This implied that the municipalities would try to influence public transport policies for which they did not have the authority. It may be argued that the lack of integration of public transport policies beyond service supply funded by the Public Reward Fund is a weakness of the ATP programme. However, the establishment of the new Public Transport Authority shows an improvement as it is a cooperation between the city and the county.[33]

Another weakness is the fact that Vest-Agder and Aust-Agder do not cooperate on public transport services beyond the supply agreed by the ATP committee. Aust-Agder is not part of the new Public Transport Authority. It means that some buses still stop at the county border.

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[32] The shares of Kristiansand municipality and the Vest Agder county were respectively 34 and 66 per cent.

[33] The bus-metro system in Kristiansand was initiated before the ATP programme was introduced.

4.5 Regional governance in Kristiansand – the strength of the functional model

The government's aim in introducing the pilot scheme in Norwegian city regions was to change the framework, in order to provide solutions that would reduce the growth of private car use and increase the market share of public transport, thereby reducing the pollution and other negative impacts. While the Public Reward Fund gives extraordinary funding for city regions that introduce measures in order to achieve these goals, the organisational pilot (i.e. the ATP programme) consists of a contract agreed on by the municipalities and counties, in order to integrate land use and transport planning and ensure a more efficient use of resources across different sectors or areas of responsibilities. What has been the effect of regional governance in the Kristiansand region? Does regional governance matter? If so, how does regional governance contribute to integrated land use and transport planning in the Kristiansand region?

The ATP programme has been a pilot – and is not a reform, i.e. there is no permanent organisation. The pilot's key results are the following. First, the participants appear to agree on the success of the ATP programme, most importantly because it has created trust. The ATP programme has established a new forum for discussions and decisions in which they meet regularly and get to know each other. This has increased the members' understanding, insight and awareness about their choices on integration of land use and transport policy. Moreover, trust may enable them to solve larger problems in the future.

Second, it is too early to drawn conclusions about the results of land use planning, as a regional plan is being developed. However, through discussions with other municipalities and the emphasis on each municipality as a part of a whole region, the municipalities have expressed willingness to reconsider earlier land use plans. Whether this applies to the municipal administration or politicians is uncertain.

Third, until the regional land use plan is completed, the players have decided to localise further commercial developments at Soerlandsparken. This is a decision which is likely to contradict regional goals of a more environmentally-friendly location by contributing to further car use.

Our findings show that the regional governance model in the Kristiansand region has functioned well in this period. The public transport supply has been improved, but there are no crucial changes regarding restrictions on car use. So far, no significant car use restrictions have been introduced – the regional governance model in Kristiansand has primarily contributed to a discussion on restrictive measures.

In this sense, it seems that this regional governance model has had limited impact on the implementation of the substantial integration of land use and transport policy, as defined in the guidelines by the Ministry of Environment and in the National Transport Plan. The ATP programme has contributed to improved public transport services in the region, but has not contributed to reduced demand for car transport in accordance with the ATP programme's goals. This may be due to the fact that the pilot did not change the local and regional players' incentives for obtaining state funding for road investments (Osland og Kraakenes 1998; 2000). In contrast, public transport supply is provided by the counties.

On one hand, the most important advantage of the functional model, as we choose to call the regional governance model in the Kristiansand region, is improved dialogue on both political and administrative level, as well as strengthening the regional coordination without "overruling" the local level. On the other hand, the functional model's disadvantage seems to be the fact that local interests that may not be in accordance with regional interest may be given greater priority than regional goals. This is because the planning decisions remain in hands of the separate players, and are not decided on together.

5 The Funen region

This project has studied the planning situation in the Danish region of Funen before the Danish regional reform. This means that we have examined the conditions for integrated land use and transport planning when there is a county-decision level with higher competencies than is the case in Norway. The former county level differed partly in the specific planning prescription in the regional plan that set out the frameworks for local development plans, and due to the inclusion of the road administration in the county administration.

5.1 Introduction to the Funen region

The former county of Funen (now part of the South-Jutland -region) is another example of a mono-central region, with Odense as the core urban region, surrounded by several smaller and medium-size towns situated on the coastline of the island of Funen and within commuting distance of Odense. There is one national trunk road crossing the region from the Copenhagen region to the east towards Jutland in the west, and one trunk road connecting the two large urban areas of Odense and Svendborg. In addition the region had a large number of smaller municipalities that were situated between the urban areas and within commuting distance of both Odense and the coastal urban centres and resorts. There were 32 municipalities in the county of Funen. Furthermore there is a dense network of regional and local roads connecting municipalities and towns in the commuter area of Odense. We would expect private car usage to be high for commuting purposes and a likelihood of a high traffic load creating congestion problems in and around Odense, for example.

5.1.1 Location, main transport links and geographical structure

Funen is the second largest island in Denmark, connected to the Jutland peninsula and the European continent to the west by a combined railway and road bridge and a separate motorway bridge across the Little Belt. To the east, Funen is connected to the larger island of Zeeland and Copenhagen by a combined railway and motorway bridge across the Great Belt. The east-west corridor from the Great Belt bridge via the City of Odense to the Little Belt bridge is part of the main transport corridor in Denmark (comprising the main railway line and the international road route E 10) linking Copenhagen with Funen, Jutland and the Continent and via the bridge from Copenhagen to Malmø in Sweden, also linking Norway and Sweden with the Continent.

In addition to the main railway line, a secondary single track line links Odense with the town of Svendborg on the south coast of Funen. Parallel to the railway, national road route No. 9, which now is being upgraded to full motorway standard, links the two urban areas. Road route No. 9 continues southwards from

Svendborg across a bridge to the island of Taasinge and then eastwards across a bridge to the island of Langeland. From Langeland the route continues as a car ferry link to the island of Lolland where it connects with international route E 47 and further on to the island of Falster, where it finally connects with international route E 55. Both these international routes connect Copenhagen, Zeeland and the Scandinavian Peninsula with Northern Germany via ferry services.

Finally, Funen is traversed by national road route No. 8 which connects the town of Nyborg at the western bridgehead of the Great Belt Bridge with the town of Faaborg on the south coast, and a ferry service across the South Funen archipelago to the island of Als. From there route No. 8 continues westwards via a bridge to Jutland and then finally connects with the international road route No. E 45 just north of the border with Germany.

Funen County was smaller than the Hanover region in respect of population but considerably larger than the Kristiansand region. The centre-periphery issues in Funen differ somewhat from the other two cases. The total population of the former county of Funen as of 1 January 2007 amounted to 478,347 of whom 186,595 live in the city of Odense[34]. Odense, in the middle of Funen, appears rather dominant but there are several small and medium-sized towns located around the coast, most of them at a distance of 30-50 km from Odense. These towns now form centres in the seven new municipalities surrounding Odense are listed in Table 5.1 below.

In addition to Odense and the above seven towns on Funen, two of the new municipalities are on other islands (Langeland and Ærø). One, on the island of Langeland, is connected to Svendborg on Funen by two bridges (national route No. 9) and has a population of 14,120 (1 January 2007). The other, on the island of Ærø, has a population of 6,873 (1 January 2006). The latter is connected to Funen by car ferries to Faaborg and Svendborg, to Langeland by a car ferry to the town of Rudkøbing and to the island of Als near to Jutland.

Table 5.1: Towns on the Island of Funen

Town	Name of New Municipality (January 2007)	Population of Municipality (1 Jan. 2007)	Direction from Odense	Road distance from Odense (km)	Transport infrastructure link to Odense
Middelfart	Middelfart	36,417	West	46	Rail and road
Assens	Assens	41,369	South-west	38	Road
Faaborg	Faaborg-Midtfyn	51,144	South	38	Road
Svendborg	Svendborg	58,506	South-east	42	Rail and road
Nyborg	Nyborg	31,208	East	29	Rail and road
Kerteminde	Kerteminde	23,239	North-east	20	Road
Bogense	Nordfyn	28,876	North-west	29	Road

[34] Danmarks Statistik - Statistikbanken

5.1.2 Developing trends and commuting

The regional plan of Funen shows considerable political will to developing the Funen region as a growth region connecting the greater surrounding area of Copenhagen and Eastern Jutland. This implies a willingness to increase commuting between these two areas. In the period 1990 to 2003, however, Funen did face population stagnation and increased commuting from Funen to East and West Denmark (Fyns Amt 2005:16ff). The main growth areas were then to be found in the Copenhagen area, the Aarhus region and the area around Middelfart.

In the population prognosis for the Funen region the county predicted a population decrease of 5 per cent from 2003 to 2040. However, there is a significant expected population increase in the cohorts aged 60 years and above. These are the groups moving from urban areas to the coastal and rural areas of the region, and thus contributing to urban sprawl (as in the Hanover Region). The younger generation (age 25 - 35) with children tend to settle in the smaller municipality centres around the main urban towns and cities on Funen. This is also the case for established families (age 36 – 55) who tend to settle away from the urban areas. This contributes both to urban sprawl and commuting in towards the urban and commercial centres on Funen, such as Odense and Svendborg (Fyns Amt 2005:37).

The transport prognosis for the county of Funen predicts traffic growth on the Funen motorway, which is expected to be 35-45 % in the period from 2002 to 2015, although the population is expected to stagnate during the same period. This growth is explained by the anticipated settlement development and increased commuting. The car traffic shows the highest increase in the area around the Funen motorway and on the main road network in the urban development areas (Fyns Amt 2005).

5.2 Regional governance: institutional framework of the county of Funen

The county of Funen was established in 1970 by the merger of the two historical counties (Odense Amt and Svendborg Amt). This was one of many changes in a major governance reform that came into force on 1 April 1970. The 1970 reform reduced the number of municipalities in Denmark from almost 1000 to 278 and the number of counties from 18 to 14. The county of Funen was abolished on 31 December 2006 as part of a new major structural reform[35] that came into force on 1 January 2007. This reform has reduced the total number of municipalities to 98 and introduced a new regional level whereby the 14 counties were replaced by five large regions (Lauridsen, 2005 9 /id). The former County of Funen, together with three former counties in Southern Jutland, now form the South Denmark Region. Parallel with this, the 25 municipalities of the former county of Funen were merged into new ten municipalities.

The county model of governance as applied in Denmark until December 31 2006, was based on the standard hierarchical planning governance and planning model

[35] *Kommunalreformen*, in English the Municipality Reform

that allocated high competencies for transport planning and spatial development to the directly-elected county council (Amtsråd). Responsibility for railways and the two motorways across Funen, however, fell to the national transport agencies. The counties in Denmark had stronger competencies than the current county level in Norway and were responsible for regional planning, public transport and county roads, among other areas. The new larger regions in Denmark have lost most of these competencies. Public transport, however, has remained a responsibility of the new regions.

5.2.1 Competencies of the county of Funen

The policy instruments for influencing integrated land use and transport planning were largely in place in the county of Funen. In particular, the regional plans and the road investments plan provided formal instruments at the regional level. The regional public transport services were also planned and administrated by the county, partly. through the administrational responsibility for the bus operator *FynBus*. The former political administrative system of Funen can be described as a strong formalised regional policy level that had broad competencies in both spatial planning and transport planning. The counties in Denmark, as in Norway, had an elected council and their own administration, and they were responsible for regional planning, public transport, regional roads and land use plans for future development (European Community 2000:98)

The regional planning institute gives the Mayor the conditions for spatial development in the region and is binding for the municipalities. The local spatial development has to be in accordance with the guidelines in this plan. The Road administration for the county of Funen was responsible for road planning on the basis of a regional road infrastructure plan. The county was thus responsible for investments on all roads apart from the two national trunk roads/motorways that cross the island of Funen. The county level was also in charge of tendering for and purchasing public transport.

The vertical division of competencies in the former Danish system gives strong competencies to the county level with regard to transport planning and public transport, especially with regard to national planning guidelines, but also with regard to the municipal level.

Table 5.2. The Funen planning and transport model

	The National Government	Counties	Municipalities
Land use	• Building Act and Planning Act • National strategy for a sustainable development, • National planning directives (landsplandirektivene) • National planning decisions (landsplansbeføjelse) • National planning guidelines andsplanredegørelse	• Regional plans (binding) • Specific sector plans • The right to object to municipal plans	• Municipalities' land use plans (binding) • Regulation and development plans (binding)
Parking policy	• Right to designate parking norms in municipality laws, Building Act § 7		• Parking regulations including parking norms or alternative charges for non fulfilment of the norm (parkeringsfond)[36]
Public transport	• Passenger transport on train (Danish State Railways) • Railway infrastructure	• County (and some municipality) owned and administrated FynBuss, bus company	• Concessions and subsidies to local public transport • Regulations of areas for public transport infrastructure
Pedestrian and bicycle lanes	• Along national roads	• Along county roads	• Along municipality roads
Roads	• Investment and maintenance funds for national roads • Planning and maintenance of national roads	• Investment and maintenance funds for county roads • Planning and maintenance of county roads	• Investment and maintenance funds for municipal roads • Planning and maintenance of municipal roads
Toll rings and toll roads	• Not relevant in Funen	• Not relevant in Funen	• Not relevant in Funen

5.2.2 County organisation

The directly elected county council (Amtsråd) forms the political level. The administrative level that implements political decisions is led by a management board (*Direktion*) that has overall administrative responsibility for the county of Funen. The organisation is divided into four operational areas reflecting the main responsibilities of the county: health, social issues, transport and the environment, and education and culture. In addition to the above functional areas, there are a number of units tasked with cross-sectoral issues, including regional development. Land use and transport planning is thus part of a larger administration and is

[36] When exemptions from the local parking norms are made, see Building Act § 22 and the Planning Act § 21 (Odense kommune, 2008)

integrated in the Division of Transport and the Environment. This division is particularly important for our research study. It is divided into three departments:

- Environment and land use
- Nature and water issues
- Roads and public transport

The Nature and Water Issues Department is divided into four bureaus. Among these the Nature and Regional Planning bureau is responsible for regional land use/spatial planning. Within the Roads department, the Planning bureau is the most interesting unit for this study. There is also a bureau dealing with public transport, presumably focusing on infrastructure related to bus transport. It is not clear whether the Roads department has any other responsibility for transport beyond road infrastructure.

The division of competencies with regard to integrated land use and transport planning is twofold: *first*, the planning department is in charge of the regional strategy plans, *second*, the road investments plans and public transport are integrated in the department for road administration (*Funen amts vejvæsen*).

5.2.3 Organisation of public transport

The Funen region has two main railway lines through Funen and only one of them connects urban areas within the region. The main issue for regional transport has thus been road infrastructure and regional bus transport. Regional bus transport in the county of Funen was operated by *FynBuss*, a public company owned by the county (and some municipalities).The regional transport, *FynBuss*, is administrated by the regional administration (*Vejvæsenets kontor for kollektivtransport*), that is in charge of planning of routes, schedules, budgets and operations. Transport at the local level was administered by the municipalities. Thus, the professional expertise of the regional transport and road planning was concentrated within the county administration, whereas the local public transport is administered by the municipalities.

5.3 Integrated land use and transport planning in the Funen region

5.3.1 Planning legislation

Spatial planning in Denmark until the end 2006 was governed by the Planning Act (lov om planlægning) as amended. The last amendment was recorded on 18 August 2004 (Lovtidende, 2004 6 /id). The Act covers planning at the national level, planning of coastal areas, planning for retail trade, regional planning (county level) and planning at the local (municipal) level. The planning authorities were defined as follows: (i) the Ministry of the Environment (the national plan), (ii) the county councils (regional plans) and (iii) the municipal councils (municipal plans).

Section 2 of the Act deals with planning for retail trade. § 5 c 3 states that such planning shall promote a sustainable structure of retail trade, whereby transport distances for shopping are limited. § 5 d comprises more detailed regulations on location of areas for retail trade in central urban areas (the normal case) and outside central areas (exceptions to the normal case). § 5 e states that the Minister of the Environment shall report every second year to the Environment and Planning Committee in Parliament on the development of the structure of retail trade in regional planning, municipal planning and local planning in respect of the overall goals of the Act and §§ 5c and 5 d.

Section 3 of the Act comprises provisions for regional planning. Generally, the planning authority is vested in the county councils. The only two exceptions are the Copenhagen area, where the capital development council, covering three counties and two capital municipalities, has this power, and the former county of Bornholm, which was abolished upon the merger of all municipalities into the municipality of Bornholm, which then took over responsibility for regional planning as well. All planning authorities are required to prepare a regional plan with a time horizon of 12 years. Regional plans must not contravene regulations or decisions made according to the provisions for national planning under Section 2, § 3.

Section 3, § 6.3 specifies that the regional plan shall include guidelines for:

1 land use for urban zones and cottage zones (sommerhusområder)

2 location of major public institutions, major transport infrastructure and other major infrastructure

3 location of industries that may cause pollution

4 location of activities that may harm the environment seriously and that require environmental impact assessment

5 regional structure for retail trade

6 due consideration of agricultural interests

7 location of new areas for forestry

Items 8 – 13 deal mainly with nature conservation aspects, whereas Item 14 concerns regulations or decisions made according to national planning provisions.

Detailed provisions for retail trade appear in Section 3, § 6.8. For spatial planning for grocery stores of more than 3,000 m^2 and other stores of more than 1,500 m^2, full information about the basis for such land use is mandatory. In addition the planning authority must issue detailed guidelines for location of such stores and for the location of any area for retailing exceeding 3,000 m^2 (Section 3, § 6 b).

Section 4 of the Act concerns municipal planning for which planning authority is vested in the municipal council. The municipal plan shall define the main spatial structure for the municipality and provide the framework for more detailed local plans for designated parts of the municipality. A municipal plan must not contravene planning decisions made according to the provisions for regional planning under Section 3, § 6.3 and 6.4 or regulations or decisions made according to the provisions for national planning under Section 2, § 3.

5.3.2 National goals for integrated land use and transport planning

The national goals can, as in the national strategy for a sustainable development (Regeringen, 2002) be described as ambiguous. At national level, there are political statements that aim at reducing growth in transport demand and that aim at integrating land use and transport planning, such as developing urban areas service functions that facilitate public services and park and ride solutions. On the other hand, there are also specific policy goals for securing adequate main road capacity and that enable residential development in the rural areas, preferably in existing villages (defined as rural urban areas) (Regeringen, 2002;Regeringen, 2002).

The regional planning level in Denmark was undoubtedly strong as the regional planning decisions were legally binding for the municipalities and at the same time formed the national plan (*landsplanlægningen*). For regional planning in the former counties, the legal requirements of the Planning Act clearly defined the range of municipal spatial planning powers (see 5.3.1) but the national level could intervene in both municipal and regional planning decisions in three ways. First, the more specific planning requirements are described in planning directives from the Ministry of Environment (*landsplandirektivene*) that encompassed the national provisions that had to be considered by the counties[37]. Second, the national level could also make specific planning decisions (*landsplansbeføjelse*), when necessary for securing national interests in local planning (Miljø- og energistyrelsen, 1996 31 /id). Third, the system of planning zones and guidelines requirement set down some main criteria relevant for integrating land use and transport planning (5.3.1).

The Ministry of the Environment circulated an overview (*udmelding*) with the national interests relevant to the regional plans for 2005[38] that can be described as a shift towards an enforcement of the regional planning institute. The Ministry of the Environment stated explicitly that the government aimed at transferring more responsibility for the planning process to the regional bodies. National interests are thus described in the report from the Ministry but there are no detailed requirements on how to comply with these. Planning was to be decentralised. The overview consists of issues that are of major concern for national planning interests such as regional development, urban growth, retail trade, transport infrastructure and protection of rural landscapes (Miljøministeriet, 2002 33 /id}.

The overview is thus one of the main documents that encompass national guidelines for the regional planning process, together with guidelines for the national planning from the government (*landsplanredegørelse*). The instruments for specific planning decisions were twofold: first, the Planning Act gave the Minister of the Environment the right to lay down binding premises for the regional planning. Second, the Minister of Environment could object to the regional plans[39]. Binding regulations on specific issues could be issued by the

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[37] Such as the overview of national interests in local planning after the administrative reform (Miljøministeriet, 2006).

[38] Overblik over statslige interesser i regionplanrevision 2005, (Miljøministeriet, 2002).

[39] Until 1992 the regional plans had to be approved upon by the Ministry of the Environment (Miljø- og Energiministeriet, 2000)

Minister of Environment concerning regional, municipal and local planning. These regulation could also include planning priorities and content and encompass individual decisions (Miljø- og Energiministeriet, 2000). Apart from the regulation of the planning zones, however, the instrument of planning directives does not seem to have been relevant for integrating land use and transport planning. The issues planning directives have mostly been used for specific issues such as energy infrastructure and communication (Miljø- og energistyrelsen, 1996).

The regional plan for Funen from 2004 explicitly refers to state planning interests with regard to:

- urban and rural development, where the Ministry of the Environment requests the regions to describe the regional urban development scheme (bymønster) and states that new residential areas shall be limited to existing urban zones and that development in rural areas shall support the development of urban zones (bysamfund)
- the retail trade location, where the plan states that planning shall promote a varied retail service in small towns and in the townships and that these services are to be reachable by all transport means including public transport and on foot. The planning shall thus contribute to a sustainable retail trade structure that minimises transport distances for shopping. More specifically, the regional plan also refers to legislative requirement such as regional guidelines for large retail centres (Fyns amt, 2005)
- with regard to transport planning, the plan refers to national directives aimed at limiting growth in transport demand, and explicitly at integrating land use and transport planning in order to contribute to reducing greenhouse gas emissions[40]

To sum up: the regional planning level had a strong position in Denmark as it both delivered binding planning requirements and content at the local level and at the same time served as the highest planning level for national spatial planning as the national plan (*landsplan*) summarised the regional plan. However, formally the national state level balances this strong planning authority as the Planning Act provided several means of intervention and regulation on both planning procedure as content. The regional planning level of the former counties in Denmark could thus be seen as an intermediate level between national policy requirements and municipality policy preferences. At stated in the interviews, the county would always have to balance local interests with national planning requirements in order to avoid objections from the state level. In the area of land use and transport planning, the regional councils (counties) seem to have great independence when deciding upon spatial policy issues such as location and development of residential and commercial areas within the former planning legislation. This could, however, also be a result of the counties being in accordance with the national policy priorities and anticipating the planning guidelines – making intervention from the Ministry of the Environment superfluous.

[40] As stated in the regional planning program (Statens udmelding til Regionplanvision, 2005)

5.3.3 Regional goals for integrated land use and transport planning

Regional targets that specifically address land use and transport planning priorities are described in the regional plan for Funen in the sections dealing with traffic and transport infrastructure, public transport and retail sales (Fyns amt 2005). These targets clearly reveal a commitment to the goals of integrated land use and transport policy – but also modify their contributions to transport demand and supply and stress their overall responsibility for the transport infrastructure in the region.

The Funen region has thus set up the following relevant targets that also include areas where the competencies are in the hand of national or private stakeholders:

- to contribute to reducing the growth in transport through land use planning, taking into account commuting and mobility conditions
- to maintain and increase public transport considering economic constraints
- to propose supplementary measures to reduce car traffic
- to secure a well-functioning and appropriate public transport service, including maintaining a high-performance main railway stretch from Sealand to Jutland over Funen and
- to maintain and improve the rail infrastructure and service between Odense and Svendborg
- to avoid new residential settlements outside urban, municipal and local centres (byzoner)
- to avoid centralisation of retail facilities in the region for grocery trade and other product groups.

5.3.4 The regional spatial plan of 2005

The regional spatial plan for Funen (Fyns amt, 2005) is a cross-sector plan encompassing a broad variety of issues, including the integration of land use and transport planning. The regional plan thus has a much broader scope that land use and transport planning, but the vision for the region has clear spatial components. In the following we will briefly summarise the content of the regional plan. The regional plan is divided into nine sections. The sections covering relevant issues for integrated land use and transport planning are:

1 regional development and four visions for Funen

2 urban development

3 traffic and transport

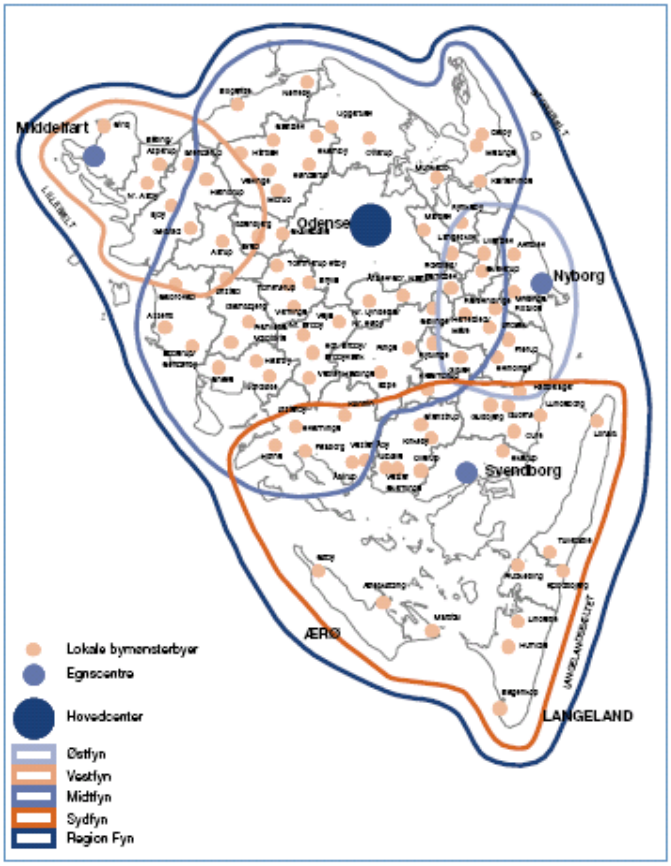
5 housing and industries outside urban areas

9 Agenda 21

The first section on regional development and visions for the county focuses on the potential for future growth. The visions outline four different ways of achieving regional development. Vision 2 concentrates on the county and describes it as “one region, a central city - Odense - and four flexible sub-regions”. This vision also indicates a large number of local centres.

The second section develops the structure described in Vision 2. Among the sub-regions, one surrounds the main centre (*hovedcenter*) Odense while Middelfart, Nyborg and Svendborg are designated as sub-regional centres (*egencentre*) in the other three sub-regions. Altogether 93 centres are defined comprising the main centre, the three sub-regional centres and a large number of municipal and local centres (*lokale bymønsterbyer*). Urban development must be concentrated at centres defined by the regional plan. The number of such centres is, however, considered too high and the plan urges the new municipalities to review the local centre structure and reduce the number of centres for future urban development. This issue must be seen in the context of the Danish legal provisions for zoning where normal urban development is allowed within areas designated as urban zones (*byzone*) and forbidden within areas designated as rural zones (landzone).

Figure 5.1: Regional Urban Development Scheme for Funen 2005



Source: Fyns amt, 2005

In section two, the regional plan includes a number of guidelines for urban development in respect of transport. New urban development must be located in such a way that it does not cause congestion on the trunk road network. Such development is subject to the planner (i.e. the municipality)proving to the regional planning authority that problems with congestion on the trunk road network can be solved satisfactorily. When considering use of land for industries that generate heavy transport, location near trunk roads and roads designed for heavy axle loads must be taken into account. The plan is restrictive when it comes to developing other parallel centres outside the commercial centre of Odense. Apart from the

commercial site of Odense South East, only one more, Svendborg Vest, in the western part of the town of Svendborg, is included in the regional plan.

The traffic and transport section of the regional plan comprises roads, railways, marine transport, air transport and public transport. Road safety is considered a priority issue by the county council. The road sector strategy is formulated in the Road Sector Plan 2003. As mentioned above, two national motorway links form the backbone of the road network, namely international road route E 10 in the east-west corridor from the Great Belt bridge via the city of Odense to the Little Belt bridges and the national road route No. 9 from Odense to Svendborg and further southwards across a bridge to the island of Taasinge and then eastwards across another bridge to the island of Langeland. Route No. 9 is being upgraded to full motorway standard on the island of Funen. The regional plan divides the county road network into five categories.

The regional plan includes ambitious goals for a reduction in the numbers of fatalities and those injured in road accidents, and to improve road capacity to reduce congestion. (Fyns amt, 2005). The regional plan stressed that prognoses for a high growth rate on the highway would make road capacity increases necessary.

The county has responsibility for regional bus transport and operates such transport through its bus company Fynbus. The county also promotes bus transport through improvement of road infrastructure, guidelines for planning of new urban areas. The county's plan for public transport services appears in 5.3.6 below.

In section five on housing and industries outside urban areas, the regional plan sets up goals to secure the development of rural areas that are designated as rural remote areas (more than 40 km from Odense[41]) with decreasing populations and a higher share of senior citizens. The county states that the living, residential and employment conditions shall be promoted within a regional perspective. The county, however, emphasises that development in rural areas shall be considered in relation to the 93 urban zones, and that modest development in other rural villages according to national planning requirements could be allowed (Fyns Amt, 2005:169). New residential areas in the open countryside shall be permitted where this can be justified with regard to local production based on rural resources (Fyns Amt, 2005:176).

In section 9 the county commits itself to the Agenda 21 goal of sustainable development but land use and transport planning is emphasised. However, the county states that the Agenda 21 strategy covers the goals of reducing the environmental load from transport and mentions car pooling as a relevant measure for a cooperative project.

[41] In 2002 the former municipalities of Gudme, Egebjerg, Tranekær, Sydlangeland and Ærøskøbing were defined as remote rural districts.(Fyns Amt 2005:168).

5.3.5 Transport sector infrastructure plans

The road network on Funen consists of the national trunk road (*hovedlandveje*) that defines the road capacity from the east to the west of Funen and for the planned highway from Odense to Svendborg. The county road network (*Fyns amt vejnet*) is divided into five categories according to regional and local importance – where category A roads are the most important county roads with regional significance – including the ring road system of the main city Odense (see the figure below).

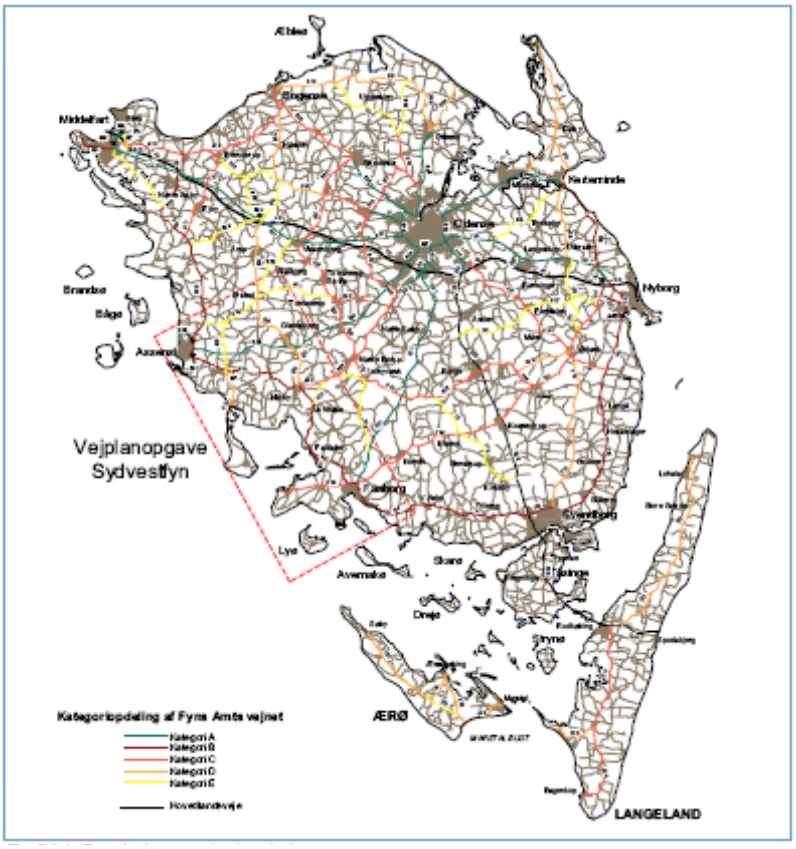
The regional plan states that increased traffic growth on the road can be counteracted by strategies for increasing public transport, car pooling (*samkjøring)* and appropriate physical planning. The plan describes priorities for the regional road network, traffic-calming projects for transit traffic through urban areas and bicycle paths. The transport sector plan identifies priorities for the regional road network. They comprise the following: (i) The Road Sector Plan 2003, (ii) Prioritising of Major Construction Works 2003, (iii) The Road Safety Plan 2001 – 2012 and (iv) The Action Plan for Intersections with Traffic Lights.

The Road Sector Plan 2003 –Regional Road Traffic Plan (Fyns Amt Vejvæsenet, 2003) describes the road sector goals, activities and priorities of the county of Funen. The plan was adopted by the county council in June 2003. The county road network comprises 1,013 km of roads, 170 km of bicycle paths or lanes along county roads and 101 intersections regulated by traffic lights.

The plan focuses on a number of priority areas, among which road safety, major construction works, traffic calming schemes, bicycle paths, public transport and new themes for road sector planning. Among the priority areas, planning for bicycle use and public transport appear to be of particular interest for our study on land use and transport planning. In fact, one of the new themes mentioned is integrated land use and transport planning. Most of the planned new bicycle paths are concentrated on arterial roads around the major urban areas, in particular Odense, Middelfart, Nyborg and Svendborg.

The report Prioritising of Major Construction Works 2003 (Fyns Amt Vejvæsenet, 2003) is a detailed priority programme for major construction works to the county road network. The programme is based on a multi-criteria prioritisation method that takes a number of issues into consideration. One of these is land use, and higher ratings are given to projects that support the regional and municipal land use plans. Lower ratings are given to projects supporting only one of these land use plans and even less to projects that are in conflict with such plans. Major construction works on county roads are typically new (shorter) road stretches, e.g shortcuts, bypasses and widening road sections.

Figure 5.2. Road network of the county of Funen



Source: Fyns amt, 2005:81

Road safety plays an important role as a goal for the transport area of the regional plan. Furthermore, the Road Safety Plan 2001 – 2012 (Fyns Amt, 2003) sets specific goals for traffic safety. The county thus aims to reduce the number of fatalities and serious injuries by 40 per cent in the plan period. This is a more ambitious plan than the previous 12 year plan that led to a 25 per cent reduction. Due to the high level of ambition, a wider set of accident-reducing measures are planned. Therefore the Roads department has co-operated closely with other road safety partners such as the police, the municipalities, the national road agency and the hospitals during the preparation of the plan. Traffic accidents at intersections amount to 45 per cent of all accidents on the trunk road network. Therefore, the Action Plan for Intersections with Traffic Lights (Fyns Amt Vejvæsenet, 2003) represents the priority issues in the road safety plan. The plan prioritises improvements in 15 intersections with particularly high accident rates. The priorities do not directly interfere with land use and transport planning but are integrated in the road administration of the county and explicitly referred to in the regional plan from 2005 (Fyns amt, 2005)

5.3.6 Public transport services

The goal of the county council is to secure provision of an efficient and well-adapted regional bus service for the county of Funen (Fyns Amt, 2004) The

council emphasises the importance of good transport services for seriously disabled persons.

Achievement of the goals depends very much on the financial means available for regional bus transport. This is directly reflected in the operational plan for bus services and the timetable of the regional bus company FynBus. The regional plan also points at other means of importance for achieving a good bus service, for instance bus-friendly design of the road network, land use planning adapted to public transport services and terminals that facilitate transfer from private to public transport (Fyns amt, 2005).

5.3.7 Summing up: key issues in planning of land use and transport

There are some key issues from the Funen case study that have to be addressed as elements of integrated land use and transport planning that aim to reduce road transport.

- Location of major new and extension of existing shopping malls
- Location of new residential areas
- Road construction and maintenance, including bicycle paths

Prioritising the above issues shows contradictory elements in relation to the regional plan concerning the goals of reducing transport demand in the county of Funen. *First*, the plan states that residential areas shall be allowed in all 93 urban centres on the island that clearly can be seen as contributing to urban sprawl. *Second*, there are also some major road projects on national trunk roads that increase the road transport capacity for example, between Odense and Svendborg and the ring roads in the Odense area. On the other hand the development of retail trade areas and residential areas within urban zones follows the planning impetus of concentrating construction and shortening distances from residential areas to service functions such as schools and town centre shopping facilities.

5.4 How does regional governance contribute to integrated land use and transport planning in the Funen region?

In the former planning model for Denmark, the counties have been described above as formally strong players, with competencies that that encompassed binding planning decisions in regard to the municipalities – and relatively strong competencies at the state level due to the fact that the national plan (*landsplan*) was formed from the regional plan for the counties. This would lead us to expect that the regional level – constituted by the counties – and the local level of the municipalities occupied a weak position in the planning hierarchy. The county would thus have institutional opportunities of implementing strong planning requirements concerning the location of housing and commercial enterprises, urban development areas and transport priorities. In this section we will describe how the regional governance model of the former county of Funen contributed to integrated land use and transport planning. We will do this by looking at the regional plan for 2005, some location policies issues and institutional conditions for integration land use and transport planning at the regional level.

5.4.1 The regional plan as a tool for integrating land use and transport planning

The broad competencies of the former county for land use planning, road infrastructure and public transport have, in the case of Funen, been an institutional condition for regional cooperation. In Funen, the elaboration of the regional plans has been a major arena for cooperation between the county as a regional player and the municipalities. The expert opinions on the Danish model are, however, connected with a broad consensus on the quality of the participation processes of the preparation of the regional plan.

The interviewed stakeholders mentioned factors for municipality involvement such as:

- The County had high degree of cooperation, i.e. through dialogue with municipalities at meetings in all 32 municipalities regarding the regional plan for 2005
- A high degree of political attention from the municipalities towards the content of the regional plan as they would set the frames for the local planning authorities directly

The interviews with stakeholders in the county of Funen and the municipalities broadly show the former planning system of the county as an ideal model for integrated planning to prevent urban sprawl and connect different issues such as traffic safety, infrastructure spending and the living quality of urban areas and local centres. There were, however, few conflicts directly linked with centralisation and decentralisation issues that were raised by the county. In the plan, the county did not r question whether the 93 urban zones (*bymønsterområdene*) had to be reduced or not. According to one interviewed stakeholder, this was due to a lack of political will. The stakeholder explains this "lack of conflict-will" in two ways: *first*, the willingness to raise conflict issues in the last county plan to be decided was small. *Second*, tendencies had already been observed towards centralisation. The latter regional plan from 2001 was, however, criticised by the state level that pointed out that large residential areas were included in the plan and the need required an analysis of the region. The role of the county as a mediator between national planning requirements and local policy and commercial interests showed its strength primarily in traffic security issues and nature protection conflicts arising from seaside developments for residential areas, holiday homes and space-intensive leisure activities[42].

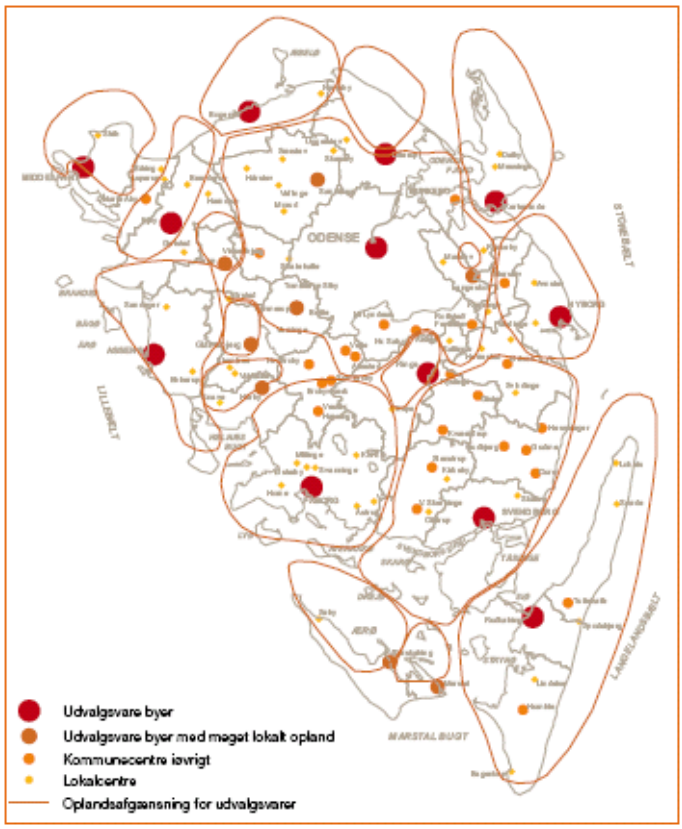
5.4.1.1 Location of major new shopping malls and extensions to existing shopping malls

The regional strategy for location of retail premises is laid down in the structure for retail stores that defines the sub-areas for regional, urban and local costumers. The plan states the importance of locating retail stores in the centre of the urban settlement in the municipalities. There are thus four categories of retail centres:

[42] Such as the "Golden coast" in Assens, camping on Langeland and the golf course on Ærø, Interviews, June 2007.

1. 12 urban retail centres with regional surroundings, where the Odense and Svendborg areas are the largest (including avlastningscenter)
2. eight retail centres with local surroundings, mostly located outside or in the periphery of the urban retail centres
3. several municipality centres for the larger municipalities in the region
4. township and local centres for daily groceries that imply a limit on total retail floor area

Figure 5.3: Retail trade structure for the county of Funen



Source: Fyns amt, 2005

The regional plan from 2005 designates 11 mid-size urban areas with larger shopping malls and several shops for local groceries. The plan thus aims at minimizing transport distances for the purchase of daily groceries. However, the county states in its regional plan that there are few instruments to facilitate a varied retail provisions in the smaller and mid-size towns in the region, but that the county can restrict new locations for and extensions to large shopping malls and centres (Fyns amt, 2005). There are also limits on grocery (3000 m^2) and specialised retail shops (1.500 m^2) and for products that needs large floor area, such as furniture, cars etc. (4.000 $m^{2)}$. Dispensation can be granted from these limits, when there are special planning-based arguments for this. In the regional plan there are two designated regional shopping areas (aflastningscentre) outside the towns of Odense (Main Centre South-East) and Svendborg.

The national level can state requirements for the location of retail trade and industry through the national planning directives and decisions. At the regional

level in Funen, the dialogue with the Ministry of the Environment is regarded as important. One of the county's roles has been to mediate between the national level and local interests by stressing that the municipalities "have to concentrate on some selected projects" (Interview, June 2007) in order to meet national requirements. In this sense regional governance could be described more as a connecting link between local and national politics rather than an independent political level for decision making (see 5.4.1.4 below).

On the other hand, the regional administration does object to local proposals on access roads and crossings that may affect the location of transport-intensive enterprises. Commercial enterprises tend to prefer locations as close as possible to the main road network. Goal conflicts are solved in the planning process and are lead by guidelines for access roads based on traffic safety consideration. One informant states that conflicts have occurred and lead to several conflicts between the municipalities and the county and that the regional level has opposed local proposals that does not apply to the regional plan on a number of occasions. The decisions were then given from the county of Funen county based on advice from a professional in the road department and following an internal discussion within the county administration. These decisions were thus taken on a professional basis and eventual policy conflicts were then solved at a higher political level.

5.4.1.2 Road construction and maintenance

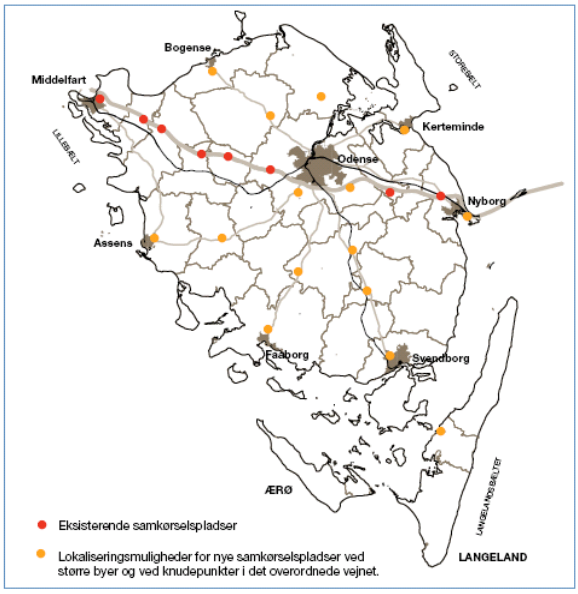
In the regional plan the county states that continuous expansion of the main road network is necessary due to increased transport demand in the region and in order to fulfil the safety and time requirements for residential and commercial development in all parts of the region. The county thus both supports and gives priority to first, the main highway from East to West (E10), second, the construction of the highway from Odense to Svendborg (national road nr 9), and third, the ring roads in Odense and the Odense Channel. The main considerations stated in the regional plan are traffic safety and increasing road capacity to avoid congestion at hot spots (Fyns amt, 2005). With regard to the requirements for integrated land use and transport policy, the regional plan uses the terminology of a "sustainable road network" , stating that urban residential and commercial areas shall be located in such a way that maintenance costs can be minimized. There has thus been a lively discussion on road access and exits. The interviews with regional stakeholders, however, reveal that there has been no explicit discussion on the environmental impact of increasing road capacity. Ring road 1 around Odense was financed by the municipality of Odense, while ring road 2 and 3 were financed by the region.

The plan, however, specifies the priorities for road construction as minimising environmental impact in dense urban zones (such as noise disturbance and safety). The plan emphasises traffic-calming projects on existing road networks in towns with low or medium traffic loads as an alternative to bypasses (Fyns amt, 2005;Fyns Amt Vejvæsenet, 2003).

Funen had bicycle path coverage comprising 15 per cent of the county road network in 2003 and the county stated in its plan from 2003 that bicycle path construction would be prioritised near larger towns and on county roads in the A-category (Fyns amt, 2003). The regional plan from 2005 does not alter the priorities of the Road Sector plan.

A supplementary instrument for reducing road traffic involves constructing additional stations for car pooling on parts of the county road network with a high traffic load (see figure below).

Figure 5.4: Proposed location of car pooling stations

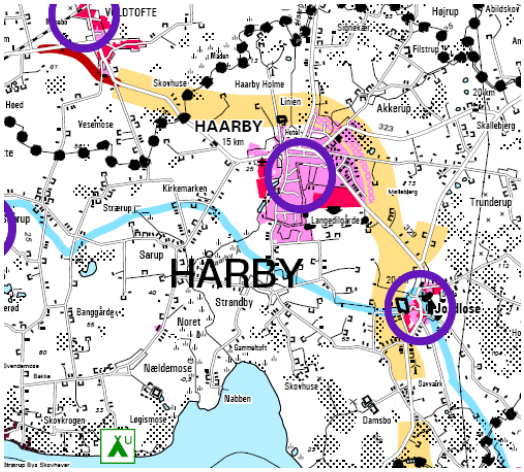


Source: Fyns Amt, 2005:86

The road investment policy is clearly a follow-up of previous road sector plans, that are developed by the county Road Administration and these are included and located in the regional plan. There is clearly political will to prioritise increasing road capacity – and these priorities seem to be in accordance with the planning provisions of the national state and the regional level (Interview, June 2007[43]). The specific road projects thus consist of road capacity extension projects, such as the ring road round Odense and the national highway between Odense and Svendborg, and bypass roads to improve urban living quality, such as the bypass stretch at Haarby (see figure below).

[43] Interview, June 2007

Figure 5.5: Planned stretch for bypass road at Hårby



Source: Fyns amt 2005

5.4.1.3 Location of new residential areas

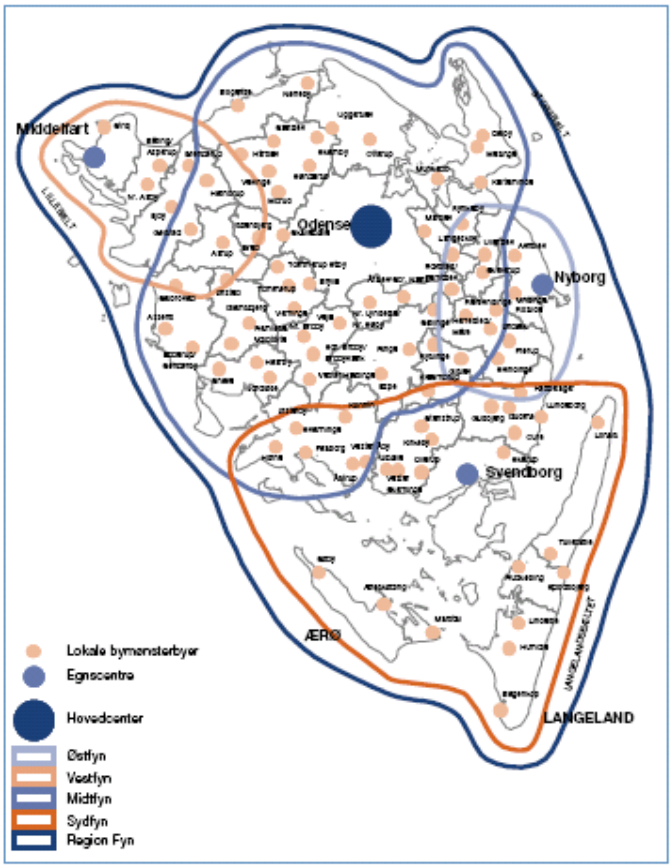
The regional goals for urban planning are more ambiguous with regard to avoiding urban sprawl, as we have described above. On the one hand there is a clear commitment to avoiding residential settlements outside the regional municipality and local centres, if they are not connected with the primary industry. However, the municipal and local centres may develop as their requirements evolve. Thus there are no efforts to centralise the population within the region in accordance with national planning requirements (see above). However, the county of Funen recommends that the municipalities consider the need to reduce the number of local development areas (*byzoner*), taking into account the population prognoses for the region. The regional plan thus states the designation of urban growth zones (*byvækstzoner*) that cover all municipalities in all parts of the Funen region. The regional plan also states that residential areas development needs will be largely covered by the areas already designated for this purpose. This means that there are no regional discussions on residential development restrictions within the municipality in the region[44].

The county of Funen has, however, outlined priorities and guidelines for urban development in the region plan. *First*, the regional plan states that there all new residential areas must not be located placed outside an existing urban zone – *i.e.* as a satellite or new local centre – and that such residential areas must be included in existing urban zones, and priority must be given to concentrating existing urban areas. *Second*, the municipality is required to document the need for new residential areas (Fyns amt, 2005). If they cannot do so, they are not allowed to extend the urban zone. There are also, as described above, recommendations with regard to public transport access and possible impacts on the road network capacity.

[44] According to the County there is a need for areas for commercial and residential purposes of around 2,660 hectares for the next 12 years. In the municipality plans, however, 3,300 hectare have been designated for such purposes (Fyns amt, 2005:43).

Summing up, there seems to be an awareness of potential conflicts of avoiding urban sprawl and local interest in local growth through new residential development areas for the municipalities. However, these conflicts are dealt with within the planning framework and not through any mismatch between municipalities' plans and regional plans of the county of Funen.

Figure 5.6: Regional Urban Development Scheme of Funen 2005



Source: Fyns amt 2005

As described above the plan does not aim at concentrating the population by reducing the number of urban growth zones. Because the national planning requirements puts limits on construction outside these zones, the regional plan puts no limits on local development to avoid urban sprawl. The experts interviewed in Funen did reveal that the regional administration or politicians did not pursue a general policy to avoid urban sprawl, but rather sought to maintain the overall settlement overall structure of the Funen region, even growth in several of the urban growth centres, such as in Egebjerg that has "large extensions and no real centre that would enable the maintenance of service production". The local politicians did, as one regional representative states, put strong pressure to move towards a decentralised location of both residential and commercial areas while at the same time service production would be centralised. There were both historical and political reasons for this strategy. Historically, the country of Funen is characterised by historic villages with service infrastructure such as schools, that have lead to a car-based society with a high car density. Local politicians have historically opposed development towards a strong centralisation of the designated urban growth centres to maintain the service functions of the

municipalities that are characterised by village settlements (Interviews, June 2007).

Principally the county administration could be described as a conflict mediator between national requirements and local preferences. The Ministry of the Environment clearly put forward preferences for population concentration in the core urban zones. The national authorities objected to the 2001 regional plan. The reason for this was that the state level deemed the designated urban areas to be too extensive and that the regional planners had to follow up the regional growth analysis more actively. In the planning process up to 2005, the regional administration did not pursue a change in regard to the designation of urban growth zones and growth potential. The county administration did, however, analyse the estimated need of designated space in the municipal land use plans and that exceeded the estimated need in the planning period. The County Council thus recommended that the municipalities ought to consider reducing the number of urban growth areas (Fyns amt, 2005). One regional representative points out that this must be viewed in the light of the forthcoming regional reform in Denmark but also that there was a natural tendency towards centralisation.

However, the road administration within the county administration could influence local planning by setting up requirements for road infrastructure, including road access and exit facilities required for housing development. The main focus for the road administration was then traffic safety. One example is that of Ringe where the road administration required a pedestrian subway to facilitate non-motorised transport links to the municipality centre for a new residential area north of the town. In the planning administration, the connection between road planning and urban development was regarded as strong and at the same time as a crucial instrument in integrating land use and transport planning. If there was a desire for urban growth in one municipality, the road interest mapping could be layered to identify interest conflicts and obstacles with former planning principles at the regional level. One expert states that this planning system provided a strong incitement for retaining well-connected, concentrated urban areas and defining growth directions and infrastructure priorities. The strength of the planning system depended upon strong, unbiased, professional expertise in the regional administration that enabled influence on local political interests through regionally binding guidelines. One regional expert describes the professional bias for the regional planners as prioritising tools such as cost-benefit analyses that would have great influence on political bargaining and prioritising. Thus there was a high correspondence between cost-benefit analyses and political decisions in Funen regarding road infrastructure investments.

The integration of transport service providers in the road administration may also have contributed to the location of residential areas only weakly and indirectly. The regional bus company only delivered regional bus transport services and they did not participate actively in the regional planning process. However, according to one informant, a dialogue took place with the planners regarding whether new residential areas could be expect regional bus connections.

Conflicts over specific residential areas with regard to the location and size of the residential areas have occurred, but are often regarded as conflicts between the conservation of cultivated land, national environmental protection interests and municipality development interests. The role of the county has, as stated by a

regional representative, been to "assist the municipality, but at the same time remain reasonable" (Interview, June 2007). The solution sought has thus often been to reduce the extension of the residential areas, but this has often be done to secure coastal protection and to prevent construction in the coastal zone or in areas in or close to nature preservation areas, such as in Assens, where the "Golden Coast" was reduced to a "Silver Coast" as the proposed residential area was reduced. Thus there are examples where the county administration objected to local development plans for specific areas.

Objections have also been put forward, when municipalities or private stakeholders have proposed developments outside the urban growth centres. One example of such a veto was in the small fishing village of Lundborg by the Storebelt. The proposal to construct 20 residences in this village was stopped when the county administration considered the transport consequences.

The former regional representative stated that the administration had a clear professional responsibility that could be regarded as too restrictive in the opinion of local politicians in some cases. When the county did object, or set limits to municipal proposals, this was done on the premise that the national authority would have vetoed the proposal if the county did not.

5.4.1.4 Integration of land use and transport planning at municipality level: the cases of Odense (Main Centre South-East) and Ringe (municipal planning)

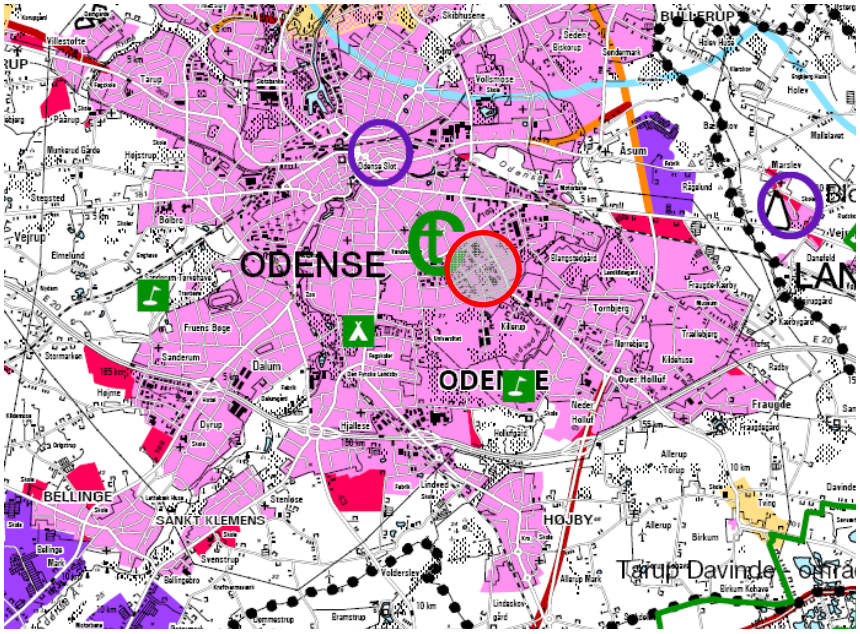
We will further elaborate on the integration of land use and transport planning, the location of large retail trade areas (*aflastningscentre*) in Odense and the municipality plan of Ringe when describing the regional plan for Funen. These cases are discussed as cases of the regional plan from 2005.

The last detailed analysis of l trade for the county of Funen was carried out in 1999 as a preparation for the Regional plan for 2001. The analysis showed that a large part of the retail trade for daily groceries was located at a close distance from the residential areas. However, there were clear trends towards concentrating daily grocery products in the largest towns in each municipality and a parallel concentration of retail trade in the larger cities and especially Odense (Fyns amt, 2005). The national planning requirements that were implemented in the 1990s (5.3.1 and 5.3.2) had the explicit aim of strengthening local trade in the smaller towns. The division of competencies between the municipalities and the counties with regard to retail trade was implemented through national legislation in 2002. The explicit responsibility of the counties is to ensure varied retail trade throughout the county and the Regional plan is the major instrument in achieving this (see 5.4.1.1 above).

The last regional plan (Fyns amt, 2005) for the county of Funen was adopted by the County Council in December 2004 with three minor comments. One of these did not accept the council's positive attitude to the establishment of a new IKEA store in Odense. Location of retail trade is an important part of the regional plan, which is in accordance with the intentions of the Planning Act. The plan recommends that Odense maintains its position as one of Denmark's most important retails centres (Lovtidende, 2004;Lovtidende, 2004), including the establishing of a new 5,000 sq.m IKEA store in Hovedcenter SØ (Main Centre

South-East), a large, modern retail centre outside the central urban area developed in parallel with the historic retail centre in the middle of Odense). The county council, therefore, initiated an environmental impact assessment of the new IKEA store.

Figure 5.7 Hovedcenter SØ, red circle (Main Centre South-East)



Source: Fyns amt, 2005

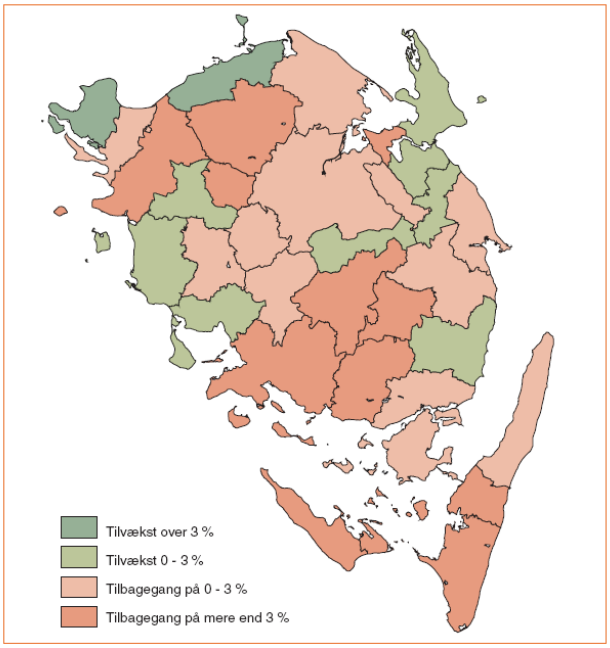
The municipality of Odense is situated in the centre of the island of Funen. With around 185,000 inhabitants it is the third largest city in Denmark and the regional centre of Funen. Since 1997 the population has stagnated. The county estimates that the population of Funen will decrease by around 5 percent by 2040. According to the county figures, only 9 municipalities will experience a growth in population, and only Middelfart and Bogense have an expected population growth beyond 3 per cent in this period. The greater area of Odense is not expected to experience growth (Fyns amt, 2005)

Based on the size of the city, the county of Funen estimates that as much as 35 per cent of spatial requirements for commercial and residential purposes are situated in Odense municipality (Fyns amt, 2005). The needs for building land are, however, sufficiently covered by the land use plans of the municipality.

The context for the political and professional discussion on the location of IKEA in Odense must be seen against a background of development in the Odense region. Even though Odense is – in Danish terms – an important city, there has been strong regional competition between the Copenhagen area, Århus and the prosperous triangle area of Vejle – Kolding – Fredericia, as the traditional industries of Odense have been in decline. Odense plays an important role for regional development of new business areas based on science-based services and financial services, IT, media and trade (Fyns amt, 200%).[45]

[45] OPUS report (Odense's Potentials, Challenges and Strengths) was produced for the the county of Funen and the municipality of Odense. The analysis describes Odense as the regional centre for Funen and compares its potential for regional development with Århus, Aalborg and the triangle

Figure 5.8 Population prognoses 2005 – 2040,



Source : (Fyns amt, 2005)

The regional plan from 2005 clearly states that Odense is the designated regional centre and that land use planning shall enable the development of Odense as one of the most important trade centres of Denmark. Odense is thus designated as the regional retail centre of Funen (udvalgsvarer). The plan explicitly states that the extension of the Main Centre South East with an IKEA warehouse of 15,000 m^2 may have negative effects on other centres in the Funen region, but that even so Odense Main Centre shall be prioritised (Fyns amt, 2005). Thus no new main shopping areas are designated in the regional plan and the total of 3 main centres (aflastningscnetre) in the regional plan of 2001 was reduced by one.[46]

At the regional level there were broad, tense political discussions on the location of IKEA. The administration strongly opposed locating IKEA outside the city area[47] and thus proposed locating the store on the retail trade area known as Main Centre South-East. Large supermarkets and retail stores were already situated in the centre, such as BILKA (Rosengårdcentret) and the centre was thought to reduce turnover in smaller shops in surrounding towns. However, the Centre is situated close to the town centre of Odense, with both bicycle lanes and frequent public transport services. From a regional and local point of view the conflicts

area. The report proposes strategies for making Odense a development location for the region and has been used actively in local and municipality planning (Odense kommune, 200;Fyns amt, 2005).

[46] The regional plan designated two Main Centres Svendborg Vest (modestly extended) and Osense South East. The former main centre of Middelfart is taken out of the regional plan, (Fyns amt, 2005).

[47] As in the Tietgens area on the North-West of Odense, or more likely in the the Kolding area (Interview, June 2007).

related to this location were connected to traffic access and contractual issues. The environmental impact assessment showed that the daily number of vehicles would increase by 1,750 in each direction and this was estimated to be a doubling of the transport compared with the existing small IKEA (Odense kommune, 2005). From the national point of view, IKEA needed to obtain a dispensation from the requirements laid down by national planning law, requiring negotiations with local and regional politicians (Lilleholt, 2003).

The Ministry of Environment has set the maximum area for the Rosengård centre as the main retail trade centre (aflastingscenter), and the location of IKEA with 15.000 m^2 would reduce the expansion potential of the Rosengård centre. The IKEA proposal would also require a dispensation from the Planning Act as it would exceed the limit of single-purpose stores (5000 m^2). The politicians in the municipality of Odense and the county of Funen were thus supporting a possible extension of the spatial limits for the Main Centre South-East (Interview, June 2007). From a regional perspective, the area limits set by the Ministry of the Environment were not supported, but rather seen as an obstacle to a more central location of IKEA.

Regarding transport capacity problems, the County had to consider whether a relatively limited road capacity could hamper the traffic flow towards the town centre. However, the Road Administration, according to a regional representative, *had* to find a solution to these problems, as the location was strongly supported by a political majority (Interview, June 2007). The solution to this problem was therefore to implement a major upgrade to the road system around the Main Centre South-East (Interview, June 2007).

The regional plan from 2005 states that the County Council would not propose any extension to the main centre upfront: firstly, the location of IKEA, with the anticipated space requirements had to be secured; secondly, the County would support an extension when the Rosengårdscentret had realised its remaining potential of 14.000 m^2 (Fyns amt, 2005), but for the Rosengårdscentret this would mean a reduction of a contractual interest. This statement was controversial. One socialist politician stated in 2005 that IKEA Odense should be supported because the environmental impact assessment showed that an alternative expansion of the Rosengårdscentret would be more harmful to the retail trade both to the surrounding urban centres and to retail trade in the central core of Odense (Høgne, 2005).

An objection to the IKEA plan was raised in December 2005 by the Ministry of the Environment. The decision was based on the fact that there was no administrative precedent of granting dispensation from the Planning Act that would enable the establishment of a single-purpose retail store that would exceed 5.000 m^2. Consequently, the regional plan could not be finally adopted by Funen County Council (Miljøministeriet, 2005). However, the Minister of the Environment clearly stated in a personal communication to the county mayor that the decision was taken due to administrative considerations – and that the legal requirements and hence administrative practice ought to be revised (Hedegaard, 2005).

In 2007 the Municipality of Odense was granted by the Ministry of the Environment to increase the surface area of the Main Centre South East to 33,000 m², thus enabling the building of a new IKEA store (15,000 m²) and, at the same time, retaining permission under building law for the Rosengårdcentret (22.000 m²). Odense municipality stated that new provisions for retail trade in the revised Planning Act from 2007 made this compromise possible (Odense kommune, 2007)[48].

5.4.1.5 Commercial and residential development of the municipality of Ringe

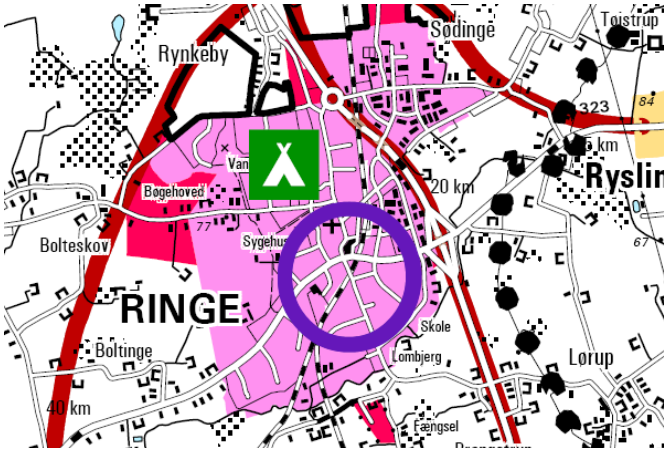
The municipality of Ringe is one of the municipalities most affected by the Main Centre South-East in Odense. The discussion on the development of both residential and commercial areas in Ringe has thus been part of the discussion of how to adapt to competition caused by the retail capacity of the Rosengårdcenteret.

Ringe[49] is a relatively small municipality with 11,000 inhabitants, situated between Odense and Svendborg. About 5,200 people live in the town of Ringe itself. The centre of the former municipality is located on the stretch of highway from Odense to Svendborg (hovedlandvej A9) and has a railway station. Despite its proximity to Odense, the county predicted a decline in population in the municipality (Fyns amt, 2005). However, the local land use plan anticipates an expected growth in population of 1.8 per cent from 2000 – 2012 (Ringe kommune, 2003). In the land use plan from 2002 the municipality sets out the premise that Ringe has the role of an commercial centre for the Mid Funen region. Thus the municipality has a need for further development for retail trade, commercial enterprises and residential areas (Ringe kommune, 2003).

[48] The final permission for the IKEA store will be decided upon after a new environmental impact assessment has been made and decided upon (Nielsen, 2007).

[49] Ringe is now part of the administration centre of the municipality of Faaborg-Midtfyn.

Figure 5.9: Designated urban centre of Ringe municipality



Source: Fyns amt, 2005

In the land use plan from 2002 the total area for retail trade is estimated to be 23,700 m^2. In this period, the municipality estimated the need for new areas to be 8,500 m^2 Thus the municipality had predicted a growth in retail space with more than 35 per cent (Ringe kommune, 2003). The land use plan must therefore be described as highly expansionist The argument for the new location for retail trade is explicit: to create a strong retail trade structure to compete with Svendborg and Odense. The location of new retail trade areas shall be concentrated in the urban growth centre of the town of Ringe town and in a area connected with a new township (østre ringvej). The plan states the area limits of new daily grocery stores for Ringe town and the smaller villages of Espe and Søllinge (respectively 3,000 m^2 and 2,000 m^2). For retail shops, the area limits are set as 1,500 m^2 and 500 m^2 respectively.

There are several residential areas designated in the land use plan. These areas are mostly located inside the urban growth centre of Ringe, but there are also examples of residential areas located outside the urban growth centre (byzoneområdet i Ringe by)[50]. In the land use plan, there are very few examples of concentrations in the urban agglomeration[51]. Moreover, the land use plan visualises urban growth through parcelled building lands for detached houses and terrace houses in the peripheral areas of the urban growth centre (Ringe kommune, 2003).

One example of such designation of building land in the marginal areas of the urban growth zone is the proposal for Ringe Vest. However, these marginal areas are all close the town centre (0 - 3 km). When the building land lies outside the designated urban growth zones, the land use plan states that these areas are to be included in the urban growth zone.

Outside Ringe centre there are several designated urban growth centres, such as Søllinge and Ryslinge. Being defined as designated growth centres (bymønsterby) the villages are allowed to designate land areas for residential buildings in the

[50] Such as the residential area south and north of Gestelevvej.

[51] Such as the planned apartment buildings at Østre Ringvej/Damhusvejen in the core centre of Ringe,

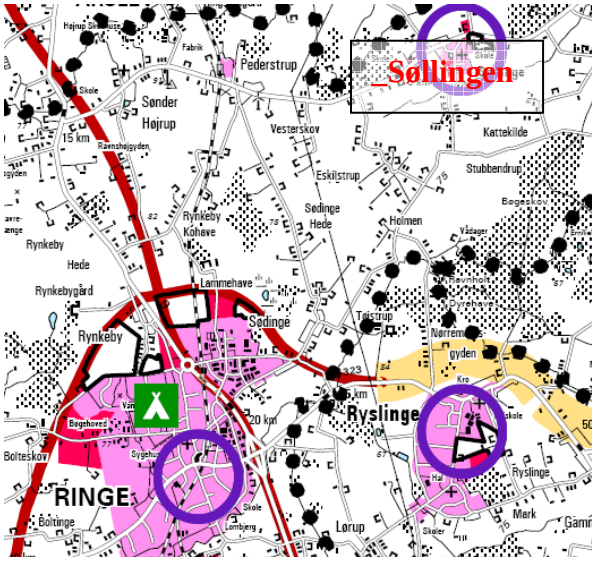
village. These areas then have to be directly located adjacent with existing building land and centre areas.

With regard to the concentrated location of residential and commercial areas, the municipal plan of Ringe could be described as ambivalent in regard to sustainability by providing "green living" residential areas close within commuting distance of Odense and Svendborg.

First, there do not appear to be any limits set by the politicians on designating building land in the local urban zones, and the plans reveal dispersed building land in the outer zones of the urban areas with low concentration.

Second, new building areas in the small villages are permitted and defined as being within the principles of urban zone development, even if the population is only 250 inhabitants and shopping opportunities are limited to one small grocery shop (Ringe kommune, 2003). The extent of growth may, however, also been regarded as insignificant.

Figure 5.10 Village Urban growth zones Søllingen.



Source: Fyns amt 2005

Third, Ringe centre is designated as the local centre for retail trade for the region by concentrating retail trade and supermarkets in Ringe town. Thus, the municipality has strived to relocate industry outside and retail trade inside the centre of Ringe (Interview, June 2007). The rand zone building in Ringe town, however, is located a relatively short distance from the town centre.

Four, the large number of free parking spaces in the commercial centre of Ringe facilitates the use of cars for shopping. This was done by situating parking spaces within close walking distance of the shops in the town centre. Furthermore, the land use plan states that there should be sufficient parking in the town centre without time limits, and that this would be sufficient even at peak hours (Ringe kommune, 2003). On the other hand, shopping facilities with parking will stem the loss of the market share to the large shopping malls in Svendborg and Odense.

Five, the municipality has put prioritised the creation a pedestrian and bicycle road system to connect all residential sites to schools and sport sites, thus enabling reduced car transport within the municipality area.

The planning priorities of Ringe must be viewed in the light of the fear of becoming a suburb area of Odense, as Ringe does not possess any specific nature or coastal areas that would attract people and business. Furthermore, the large shopping malls in the Rosengårdscenteret[52] were regarded as easily accessible for the citizens of Ringe. The goals of the land use plan for 2002 were to further concentrate retail trade on the central shopping streets of Ringe[53], to plan a extended central township for the location of shops, and only to locate shops requiring larger surface areas outside the core area of the town centre (Ringe kommune, 2003). Thus the mayor of Ringe was dedicated to detailed planning and he states that the municipality aimed at developing the centre of Ringe as an attractive shopping location, renewing the town centre. Ringe seems to have succeeded in retaining attractive shopping facilities and thus avoiding loss of trade to the Rosengårdcenteret.

One of the core questions was then enabling a highway crossing north of Ringe centre to facilitate the location of industry outside the centre. The cooperation with the road administration and the county, according to one local politician, worked well but the municipality needed to be "ahead in planning", partly. as Ringe needed to be convinced of the needs for infrastructure investments funds to realise the local plan (Interview, June 2007). In this case, the municipal planners had to convince the regional road administration that, as one expert states, the road administration had considered the proposals on a professional basis, and thus could either reject the proposals or ask that they be revised. For the most part, potential conflicts were worked through using the regional planning process. Cooperation with the county administration and regional politicians was thus deemed to be of central importance by the local politicians.

5.4.2 Institutional conditions for integrating land use and transport policy

The main aim of the Funen study for this research project was to examine how the integrated county administration performed as an institutional setting for land use and transport planning. The project looked at regional governance in Funen before the regional reform. The Funen region had a stronger county level compared with the Norwegian planning model for two main reasons: *first*, the regional planning instrument gives the county a strong position in relation to the municipalities through binding and detailed decisions on physical planning at the local level. *Second*, the competencies of the region have a broader scope, including road infrastructure planning, public transport services and development planning for the region.

[52] Such as BILKA

[53] Algade, Østergade, Jernbanegade and Stationsvej

5.4.2.1 The role of the regional level in the political administrative system

In the former Danish planning model, the regional level was represented primarily by the county which played an crucial role in both regional planning and transport infrastructure planning, since the road administration was a part of the county. The municipalities were, as is the case today, in charge of physical planning at the local level but the regional plans set the conditions and frames for local planning. In the former county of Funen, the competencies for regional land use and regional transport planning were largely vested in the county. In addition, national planning was included in the county plans. National requirements were thus communicated through the national planning act and national decisions and directives (5.3.2 above). Responsibility for railways and the two motorways across Funen, however, came under the national transport agencies.

This role of the regional level, therefore, makes it likely that policy achievement in respect of integrating land use and transport planning will be largely dependent on political will at the regional level. In the county model of Funen, however, local level participation must be regarded as important. The regional representatives interviewed in this project confirmed the strong role of the regional level. One regional representative explained the role of the county as a development role, where the county level acquired more and more powers from parliament. The county was thus enabled to undertake cohesive planning for the region across the administrative units and thematic issues.

This strong position in regional planning is regarded as unique by the regional participants - and one stakeholder even stated that the region had become too powerful for the national level, and for that reason should be dissolved The main role of the county, as expressed by the interviewed stakeholders, was that of an mediator between local interests and national planning requirements (Interviews, June 2007). The county thus had to work in two directions: *first*, they had to provide a professional basis for the land use proposals as set down in the regional plan, and in this sense they "argued on behalf of the municipalities" (Interview, June 2007). *Second*, they had to communicate the national planning directives and guidelines, and communicate to the municipality what kind of projects could be supported, as the national authority had to grant consent to the regional plan, and often refused to do so.

Moreover, the county has had an important role as a professional agent and data-collector at the regional level, including traffic data and the road accident registry. Using GIS analysis tools in the road administration gave the county high expertise. The regional planning competences thus enabled professionally-based discussions on planning issues that helped in finding regional solutions to local interest conflicts.

5.4.2.2 Division of competencies between administrative levels

We assumed that a formalised political administrative system at the regional level, such as in the county of Funen, would be adequate for addressing problems, formulating policies and coming up with solutions and priorities to facilitate the integration of land use and transport. In the stronger formalised regional governance models, such as Funen, we further assumed that the local levels will be less involved in land use and transport planning at the regional level. This may result in more conflicts between the local and regional levels, *e.g.* over the development and location of larger shopping malls or over local development needs. One explanation for such an assumption could be that strong administration on the regional level would comply with specific professionalized point of views and disconnect themselves with specific local interests. In Funen, however, conflicts between local policy interests and regional professional interest were not dominating. The interviews with local representatives revealed quite the opposite.

First, in practice, the regional administrative level did not make any proposals that were directed at concentrating development in fewer urban growth zones, as strongly recommended by the Ministry of the Environment. Moreover, the regional administration did step in when the municipalities proposed development projects that would contravene national directives connected with nature and landscape protection issues (Interviews, June 2007). In the regional plan for 2005, all the urban growth zones were retained in the plan, despite national comments on urban sprawl in the 2001 plan[54].

Second, regional planning in Funen was explicitly deemed to be successful as a result of the close collaboration and inclusion of the municipalities in the planning process. One local representative also states that local interests could easily gain regional support if they were well-prepared (Interview, June 2007). Planning in the region was thus mostly a cooperative project at a strong local-regional administrative level. The local politicians had political goals, but the solutions were made on a rational basis and in dialogue with the regional representatives (Interview, June 2007). As one regional representative puts it: the professional planning competencies at the regional level enabled "an educated dialogue" with the municipality that contributed to keeping the urban zones "together" and defining development axes.

5.4.2.3 Policy instruments available at the regional level

For this case study, we assumed that a strong regional level would broaden the range of available policy instruments, such as combined land use and transport planning in combination with decision power on road investment and on restrictive measures. In the Funen region the regional plans were binding for the municipalities, but when drawing up the plans, the municipality views on land

[54] One representative claims that the conflict-avoiding strategy on these issues was due to the forthcoming dissolution of the county level, and a tendency towards centralisation based on residents' preferences.

use were included, so that the process may be described as a regionally-mediated consensus.

Also in Funen, the use of local restrictive measures such as parking policies are largely in the hands of the municipality. These are normally laid down in local laws (retninglinier/vedtekter). The authority to issue norms for parking areas and to deviate from these norms are enshrined in national law[55] Thus the region did not have any instruments for influencing parking priorities at the municipality level. The planning of environmental zones and pedestrian areas in the town centre was a part of the local planning autonomy. Furthermore, local public (bus) transport was in the hands of the municipalities, whereas the county was only responsible for the regional routes that were integrated with the county road administration. Consequently, the county at the regional level did not have any instruments available for influencing the planning or tendering policies in the municipalities.

The policy instruments available at the regional level were connected to land use planning, road investment priorities and public transport at the regional level, where all these competencies were included in the county administration, comprising road investment priorities, designation of development areas within the regional plan and regional public transport (bus).

The main instrument for the road sector was investment planning, resulting in the major construction priority list. The interview revealed that this instrument was significant with regard to coordinating locations. Both road infrastructure effects and road infrastructure requirements, including pedestrian/bicycle routes from residential areas to town centres, were mentioned as main instruments of the county administration. However, these instruments were not actively used to obtain concentrated land use development, but rather to address cost and traffic safety issues.

The county could also be said to have at its disposal, the efficient instrument of designating urban areas and coordinating the location of retail centres. However, the interviews revealed that there has been consensus among the local and regional stakeholders on not limiting the number of urban centres. The instrument has thus not been applied to concentrate the population but to stabilise the population pattern in the region.

For the regional public transport, the county set up public traffic plans that included the status of public transport. The role of the regional planning was to secure road traffic flow. The main instrument was, however, the annual planning of bus routes and schedules.

[55] Codified in the Building Act (§§ 7 and 22) and in the Planning Act (§21).

5.4.2.4 Division of competencies between sectors in the region

When we chose Funen as a case study, we assumed that the institutional integration of the competencies for (regional) public transport, road planning and spatial planning as units in the county administration would facilitate integrated land use and transport planning at the regional level. In Funen we thus expected that the strong administrative capacity and the functional integration of both spatial and transport policies at regional level would contribute to integrated land use and transport policy. The interviews clearly supported this assumption. However, we also found that the functional tasks and institutional goals of the respective administrative units were retained. The professionals we interviewed clearly regarded regional cooperation from their own professional viewpoints. Thus, the case study of Funen also could be interpreted as conservative in the sense that the planning tradition and priorities of the stakeholders remain stable. Thus the municipalities will not be likely to oppose the priorities of the county road administration, and the county will not actively aim to interfere with local planning interests and priorities. Their role was that of an intermediary level between national planning requirements (mainly connected with landscape, agricultural land and coastal protection) on the one hand and the development wishes of the municipalities on the other hand.

5.5 Regional governance in Funen – the strength of the county model

The role of the former county in the Danish planning system could be described as a ideal model for a strong regional level. Through binding land use plans and clear definitions of development zones, and combined with national requirements and guidelines (see section 5.3), the region had a strong position in the multi-level administrative system. The adding up of the county regional plans to designate the national spatial plan shows the strong role of the planning institute.

In truth, the case study of Funen show that spatial planning and transport planning were highly integrated in the former administrative system and the strong regional governance contributed to this procedural integration. However, the county plan was ambiguous in regard to whether the planning was in accordance with the substantial national and regional goals for sustainable development. *On the one hand* the plan did not strive a) to concentrate the number of urban growth zones (bymønster), b) to limit growth in transport demand, and c) to integrate land use and transport planning in order to contribute to reduce greenhouse gas emissions.[56] On the other hand, the county seems to influence the principle that new residential areas were to be limited to existing urban zones (such as in Ringe).

It thus seems that the regional governance model did not have a strong impact on the implementation of integrated land use and transport planning, as defined in this project. Land use and settlement structure did not contribute to reducing the

[56] As stated in the regional planning programme (Statens udmelding til Regionplanvision, 2005)

demand for transport by countering spread in urban areas and thus facilitating sustainable modes of transport and efficient transport services. This was, however, due to a "unspoken" multi-level consensus on road investment policy and the wish to maintain and further develop the historical pattern of numerous urban zones of the villages. Thus the regional plan contained both the goal of maintaining and further developing the main road network, and reducing the growth in transport demand through spatial planning.

This does not, however, signify that the county model did not contribute to integrated land use and transport planning. *First*, the road administration had to avoid a disintegrated development in the decentralised urban zone structure. They could use their intermediary position as a guardian of national planning requirements and as a dialogue partner with the municipalities. The dialogue-based development of the regional plan of 2005 was thus an instrument that included both national and regional considerations. *Second*, the use of the broad planning competencies to fulfil both national and regional goals, such as nature and coastal protection, traffic safety and infrastructure costs of traffic access to the main road network did influence the choice of location indirectly. Thus residential and commercial locations were influenced by instruments at regional levels that also served national and regional goals other than those of integrated land use and transport planning.

6 The Greater Hanover region

6.1 Introduction to the Hanover region

The region of Greater Hanover appears to be a typical case of mono-central development consisting of a city core area and several surrounding county and smaller municipalities. These districts benefit from the central service functions of the larger cities. In mono-central city areas there is also an imbalance in the migration patterns in favour of the surrounding districts. Motorised commuter transport thus overloads the transport system in the core city area of the region. The surrounding communities are, however, assumed to be reluctant to the development of high-performance public transport systems and concentrated settlement planning. Public services such as waste disposal sites and sewage treatment plants, on the other hand, are perceived as having a negative impact on the communities surrounding the greater city area.

The Hanover region is a comparatively large region with a population of 1.1 million inhabitants with a high population density. The city of Hanover has 500,000 inhabitants and the region includes 20 further small and medium-size municipalities.

The Greater Hanover region was a merger of the former county of Hanover (*Landkreis Hannover*), the Association of the counties in the Hanover region (*Kommunalverband Großraum Hannover*) and the City of Hanover in 2001. Planning at the regional level has a strong tradition in the Hanover region. Since 1963 the common regional plans have been drawn up made by the Association of the counties (*Kommunalverband*). The first binding regional plan dates back to 1963 (Fürst et al 1990, 311 ff.).

6.2 Regional governance: the institutional framework of the Hanover region

6.2.1 Competencies of the Hanover region

The region of Hanover is organised according to the counties in Land Niedersachsen but the competencies are somewhat wider than for the counties (*Stadt-* and *Landkreise*). As for the county, the region is responsible for regional planning and approving preparatory land use municipality plans. The region is also in charge of other public services such as commercial and employment development, special schools, social welfare, hospitals and public transport by rail and road (§§ 8 und 9 Regionsgesetz)[57]. The competencies of the former regional

[57] Gesetz zur Bildung der Region Hannover (Regionsgesetz) vom 5. Juni 2001 (Nds. GVBl. 16/2001, S.348 ff.) i.d.F. vom 18.05.2006 (Nds. GVBl. 13/2006, S.203 f.)

administration (Regierungsbezirke) were either transferred to the counties or to the regionalised national authorities (Regierungsvertretung Hanover)[58] The reorganisation aimed at creating a clear division between local and regional duties and responsibilities according to the spatial character of the task[59]. The region possesses a general regulative authority at the local level with binding legal effects for third parties (§ 18 Regionsgesetz).

The regional president (*Regionspräsidenten*) is elected directly for five years, and has administrative and political leadership. The president is in charge of organising the administration in accordance with the regional assembly (*Regionsversammlung*). Presently the region has four regional directors (*Dezernenten*) with the following responsibilities: (I) Finance and real estate (II) Social and education (III) Environment and planning (IV) Safety, business and transport. As part of the foundation of the new region, the administrative structure was altered. Dezernate is accordingly divided in several departments, organised as team with flexible units in order to be "*lean, swift and flexible.*"

[58] The *Regierungsvertretungen* was established by Niedersachsen in 2005. Primarily it is a service provider and only has administrative functions and authorities over the municipalities.

[59] The municipality thus become the responsible body for primary schools, building inspection and environmental administration.

Table 6.1. The Hanover Planning and Transport Model (same as table 3.1) shows the competencies of the Bund, Land Niedersachsen, Hanover region and the municipalities

	Bund	Land Niedersachsen	Region of Hanover	Municipalities
Land use	• Government guidelines for spatial planning • Government act for spatial planning (ROG) • Government building act (BauGB)	• Programme for regional planning at Land-level • Niedersächsisches act for land use (NROG)	• Regional spatial programme (RROP) • Approval of preparatory and binding land use plans of the municipalities (not binding) • The right to object to municipal plans	• Municipalities' preparatory land use plans (binding) • Regulation and development plans (binding towards third party)
Parking policy				• Parking policy, charges, traffic calming zones, regulations of parking areas
Public transport	• Planning of road and rail investments at Bund with road and rail allocation acts • Passenger transport on train (DB) • Funding for national trunk roads and highways and railway infrastructure • Act on regionalisation of public transport	• Planning of road and rail investments at Land level • Act passed by the Land Niedersachsen on public transport (Niedersächsisches Nahverkehrsgesetz 1995) requires regional public transport plans	• Planning of road and rail investments at regional level • Shareholder in ÜSTRA (2%) • Shareholder in RegioBus GmbH (89%) • Wide-ranging powers in purchasing, planning of time schedules, routes etc. for public transport services	• Planning of road and rail investments at municipality level • Planning of road investments at county level in Hanover and Garbsen • Main shareholder in ÜSTRA (Hanover)
Pedestrian and bicycle lanes		• Along country roads (Landesstraβen)	• Along county roads (Kreisstraβen)	• Along municipality roads (Gemeinde-straβen)
Roads	• National trunk roads and highways (Bundesstraβen and Autobahn) • Subsidies through the Bund (Act on financing of local transport investments (2006)	• Land roads (Landesstraβen) • Financed through the Bund	• County roads (Kreisstraβen) • Financed through the Bund	• Municipal roads • In Hanover and Garbsen also for county roads
Toll rings and toll roads	• Road charges (Maut)			

Compared with the Norwegian counties, the regional model of hanover is characterised by a general legal authority based on representative power, and with wide-ranging tasks. With regard to the area of integrated land use and transport planning, these competencies could be listed as in Table 6.2. The budgets for the region are financed both through transmission from the municipalities (40 %) and allocation from the Land (60%). The allocation follows by general transmission

and earmarked allocation. The region cannot impose taxes but can impose charges for the operation of service providers and for financing road investments.

The Hanover region is governed by an assembly with 84 directly- elected representatives. The representatives are elected for a period of five years. In addition to the right to vote and to be elected, citizens can participate in referenda. 48,000 of the inhabitants with the right to vote must endorse any referendum proposal. The decision will be binding and can be a specifically-defined issue and content. The committees of the region are the most important decision-making bodies after the *Regionspräsidenten*. The committees prepare the decision of the regional assembly and are responsible for all decisions that are not in the remit of the regional assembly or the Regionspräsidenten (§64 Regionsgesetz).

6.2.2 Regional planning in a German planning context

The German planning system is basically regulated by the Bund through the Federal Act on Spatial Planning (Raumordnungsgesetz), the Federal Building Act

Compared with the Norwegian counties, the regional model of Hanover is characterised by a general legal authority bas (Baugesetzbuch) and 16 regulations at Land level. The Federal Building Act is common to the municipalities of all Länder in Germany. The Federal Act on Spatial Planning (ROG) primarily designates the responsibilities and duties of the Länder and regions but the Act can be modified by the Länder. Niedersachsen has specified the regulations in the Niedersachsen Act on Spatial Planning. This Act thus forms the basis for spatial planning above the municipality level.

The Niedersachsen Act on Spatial Planning sets out the organisational requirements for the planning process at both Land and regional level, such as participation und implementation of the plans and programmes.

As shown in the table 6.2 all levels of the German political system have authorities within spatial planning. The Bund issues national guidelines. However, these guidelines only have an indicative function (Raumordnungspolitischer Orientierungsrahmen 1993, Leitbilder der Raumordnung 2006). The Länder are the responsible body for spatial planning, whereas federal spatial planning has to be followed and specified through the regional plans and programmes/schemes. The municipalities are in charge of the preparatory land use plans and the binding land use plans covering a designated area. The spatial plans and schemes of the different levels are connected through the principle of countervailing powers (§ 1 Abs.3 ROG, § 1 Abs.4 BauGB): The planning documents at the superior administration level must take into account the planning documents of the lower levels and vice versa. The spatial programmes of the Länder and the regions as well as the preparatory land use plans of the municipalities are only binding for public authorities. Only the binding land use plans (Bebauungspläne) are legally binding for private stakeholders.

Table 6.2 The German planning system – overview

Responsible institution	Type of plan	Legislative foundation
Bund	Guidelines for spatial planning (Raumordnungspolitischer Orientierungsrahmen 1993; Leitbilder der Raumordnung 2006)	Federal act for spatial planning Bundesraumordnungsgesetz (ROG) Governmental building act (BauGB)
Land Ministerium für den ländlichen Raum, Ernährung, Landwirtschaft und Verbraucherschutz	Programme for regional planning at federal state level	Niedersachsen act for spatial planning Niedersächsisches Raumordnungsgesetz (NROG)
Region (z. B.: Region Hannover, Zweckverband Großraum Braunschweig, Landkreise und kreisfreie Städte)	Programme for regional development	Niedersachsen act for spatial planning Niedersächsisches Raumordnungsgesetz (NROG)
Municipality (z. B. Stadt Garbsen, Gemeinde Isernhagen)	Preparatory land use plans (Flächennutzungspläne), legally binding land use plans (Bebauungspläne)	Federal building act Baugesetzbuch (BauGB)

Source: Hanover region

In its basic principle structure, the German system of spatial planning is a system of spatial order and not, as the English planning system, one of spatial control. Hence, the German system prescribes how the areas are to be regulated. There is, however, a tendency towards strategic development planning, whereas the Bund aims at coordinating spatial development policy through guideline principles (Zibell, Loeb & Fürst, 2008). Both the Bund and the regional level have changed their perception of spatial planning as a consequence of the planning concept of the European Union. Most of the Länder, including Niedersachsen, have followed the planning principle of spatial order. Zibell, Loeb and Fürst (2008) point out that the planning at Land level has lost both attention and support due to this divergence.

6.2.3 Regional competencies for road transport planning

Integrated transport planning in the Hanover region is restricted to the coordination of regional roads and public transport (bus and rail). A systematic integration that includes national road development planning and transport development planning at the municipal level is not implemented in the existing regional model. The coordination mechanisms of the region are directed primarily towards transport supply and not transport demand: restrictive measures such as road calming projects, speed regulation in urban zones and parking policies come under the competencies of the municipalities. This is also the case for the use of urban environmental zones to reduce particle emissions. Other policy instruments such as environmental charges in the form of tolls and CO_2-emission taxes are decided upon at the national level.

Furthermore, a systematic policy or strategy at the regional level to reduce individual motorised transport in order to promote a modal shift to public

transport is hampered by the limited competencies in this area: the municipalities in the region are the key players in reducing individual motorised transport.

6.2.4 Transport planning in the German planning context

The responsibility for transport planning is spread between different authorities and institutions. The Bund is responsible for the national trunk roads (Bundesstraßen und Autobahnen), the Länder are responsible for country roads (Landesstraßen), the counties and cities for the county roads (Kreisstraßen), and the municipalities for the local roads (*Gemeindestraßen*)[60]. The railways are owned and maintained by the German railway company (*Deutschen Bundesbahn*). The municipalities and their designated transport companies are responsible for local public transport.

The operation of public transport is largely decentralised. In addition to the Bundesbahn, there are several private rail operators. In addition to the municipal light railway companies there are private bus companies. For freight transport, there are haulage companies as well as the Bundesbahn.

The planning of road and railway investments on national level is implemented through the transport investment plan of the Bund (Bundesverkehrswegeplanung BVWP) and the transport investment plan of Niedersachsen (Landesverkehrswegeplanung). At the Bund level the transport investment plan has been developed as an integrated plan for road, rail, waterways and air transport since the mid 1970s. The transport investment plan is the basis for plans that assess the need for investment. The financing and priorities for such investments are decided upon by Parliament through the road and rail allocation acts (Bundesschienenwegeausbaugesetz, Fernstraßenausbaugesetz). The realisation of the investment plans follows the budgetary priorities.

In the transport investments plan, the different projects are classified according to two levels of requisition: Urgent and required. The classification is made in accordance with advice from the Ministry of Finance based on calculations of available budgetary resources, transport prognoses and cost-benefit analyses. In the new transport investment plan (BVWP, 2003), spatial consideration and evaluations of the projects are carried out (Raumwirksamkeitsanalysen). This means that projects that are important for spatial development are recommended to the Länder as "urgent investment needs". The Länder participate in nominating projects in the investment plans. The road administration of the Länder is in charge of the realisation of projects that are part of the transport investment plan of the Bund (in Niedersachsen: *Landesbehörde für Straßenbau und Verkehr* [61].

The Länder develop separate transport development plans. Local roads play a marginal role in the overall transport planning system as the municipalities rarely

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[60] Regulated in the following acts: Bundesfernstraßengesetz (§ 5) und im Niedersächsischen. Straßengesetz (§ 3)

[61] See § 16 Bundesfernstraßengesetz. The road administration in Niedersachsen (Nds. Landesamt für Straßen und Verkehr) is in charge of 4,744 km of federal trunk roads (Bundesstraßen), 1,395 km of federal highways (Autobahnen), 8,070 km of state roads and of 3,619 county roads which it administers on behalf of 13 rural counties (out of 37 counties in Niedersachsen).

invest in new roads. This dispersed responsibility also seems to create a relocation of road investment. When the municipalities and Länder do not invest in new capacity, this leads to more transport on the national trunk roads and highways (Zibell, Loeb & Fürst, 2008).

The Hanover region is responsible for the county road network, a part from the cities of Hanover and Garbsen (with more than 50,000 inhabitants) which are responsible for financing road investments for county streets within their areas. The Hanover region took over responsibility for these investments from the former administrative district of the county (*Landkreis*), whereas the responsibility for the local roads (*Gemeindestraßen*) was retained by the municipalities. The region is thus responsible for around 640 km county roads, and now influences the planning of municipal roads. Since the mid 1990s there has been no regional road investment plan but the region has made a priority list for the years 2007 – 2010[62].

The region is also in charge of a database for the state of the road network and an integrated transport model to estimate modal split and transport demand in the region. Integrated transport planning for public and road transport is still under realisation. This work is being done by a working group on "integrated transport planning" as a cooperative project between the Hanover region, the city of Hanover and the Niedersachsen road administration. The regional spatial programme states the goals for road planning, the quality of the transport network (security, minimising land use for the transport network, protection of nature and landscape and reduction of emissions), bypass roads and increased capacity on heavily- loaded stretches (RROP, 2005: Ziele D. 3.6.3). There are close connections between the working group and the regional planning processes to secure coordination of transport planning as part of the regional spatial programme. The basis for this cooperation is a study on integrated transport from 2007 (Region Hannover, 2007).

6.2.5 Structure of the spatial planning of the Hanover region

The regional plan for the Hanover region (regional spatial programme) is intended to structure spatial order in the region. The spatial order designates:

- the location of regional centres (*Zentrale Orte*)
- the residential growth areas (*Siedlungsschwerpunkte*)
- the central regional commercial facilities
- regional transport and energy infrastructure
- areas for special purposes such as
- areas for natural resources (water, forestry and agriculture) and areas for nature protection (*Lanschaftsschutzgebiete*)

[62] The national system of financing transport infrastructure was altered in 2006. From 2007 the Municipal Transport Finance Act (*Gemeindeverkehrsfinanzierungsgesetz*) does not require additional financing through the Länder and municipalities. The Länder receive a lump sum earmarked to improve transport through local investments. These projects are designated in annual priority programmes for constructing (*Jahresbauprogramme*).

In addition, the spatial ordering system applies sectorally based plans such as retail trade plans (*Einzelhandelskonzepte*) or plans for the location of wind power generators.

The spatial plan also states requirements and recommendations for the municipalities and the sectoral policies such as landscape protection, water management, forestry and energy supply. However, only the spatial fixed operational goals can be regarded as binding for the municipalities. Other spatial recommendation can be formulated as "principles" or "general guidelines." These recommendations must be considered but deviations could be allowed when these are properly accounted for.

Regional planning in Hanover is part of the spatial program of the Land Niedersachsen and thus following the principle of spatial planning of the Land. Practically, the implementation of these principles is less rigid since process-related considerations of individual cases are given weight in order to be more flexible in the implementation of the plan. Practically this means that the spatial order is modified by a regional planning procedure and regional impact assessment procedures. Regional planning procedures can be regarded as advisory processes in order to assess whether the specific project is in accordance with the spatial goals or not. In the specific assessment of a project, the project proposer is thus given potential influence through negotiation. The regional planner can then enforce changes to ensure that the legislative goal of sustainable spatial development is pursued and optimally fulfilled (§ 1 Abs. 2 ROG, § 1 Abs.5 BauGB). Zibell, Loeb and Fürst (2008) state that this planning procedure can avoid conflicts through "tit for tat" (do-ut-des) bargaining. The results from the procedure can then be regulated as spatial contracts and thus link the private stakeholders to the spatial goals of regional planning.

6.2.6 Organisation of public transport in the Hanover region

Public transport plays an important role in transport development planning at the local level. In the Hanover region, planning also includes public transport by rail. In most German planning schemes, public transport is coordinated at the regional level. According to the regulations of the Bund, the region is responsible for public transport in the region and receives financial allocations to act as a purchaser for public transport services.[63] Public transport services can be carried out either by municipal or private transport companies.

Additionally the region receives national subsidies for investments in local rail and road infrastructure[64] In the Hanover region, these allocations are primarily

[63] The basis for the funding is the Federal government act on regionalisation of public transport Grundlage (Bundesgesetz zur Regionalisierung des öffentlichen Personennahverkehrs) („Regionalisierungsgesetz"). The revenue from the mineral oil tax is distributed to the Länder (§5 and § 8 Abs.1).

[64] Gemeindeverkehrsfinanzierungsgesetz (GVFG), revised 31.10.2006 (BGBl. I, 2407).

coordinated by a limited company responsible for infrastructure within the region: Infrastrukturgesellschaft Region Hannover GmbH."[65]

Due to the law on regionalisation of the public transport system the Hanover region[66] is in charge of purchasing public transport services: the main operators are the company ÜSTRA (subway and buses), the Bundesbahn (DB Regio AG and the S-Bahn-Dienst for regional and local rail connections), the private railway company "metronom Eisenbahngesellschaft mbH", and the bus company RegioBus Hannover GmbH for bus transport in the surrounding areas of Hanover. The region is shareholder of ÜSTRA and the majority shareholder in RegioBus GmbH (89%). The region has wide-ranging powers in operational planning of public transport through an active role as purchaser that includes decisions on timetables and tariffs, contracts with the operators and co-ordinating information for travellers). The public transport supply is thus coordinated as a single integrated public transport concept through one department in the Hanover region (Dezernat IV).

Regional integration of the public transport into spatial planning has a long history in the region of Hanover. It was initiated in 1969 and has been developed ever since.

Regional transport planning is mandatory for the region.[67] The public transport plan for the Hanover region consists of a) a description and prognosis of the transport demand, b) guidelines and goals for the development of public transport in the region, c) securing and developing transport services differentiated according to the spatial characteristics of the region d) a list of prioritised measures, and e) a statement on financing for public transport (Nahverkehrsplan).

6.2.7 The role of the Hanover region, the counties and the municipalities in the political and administrative system of Niedersachsen and the Federal Republic of Germany

The Hanover region and the counties in Niedersachsen are area/local territory forms of government. A local territorial government means that the competencies of the region are limited to a territorial area with administrative autonomy based on directly- elected assemblies.

At the local level Germany is divided into counties and municipalities. The counties (*Landkreise*) are territorial legal bodies but at the same time local associations of municipalities. They are financed through allocations from the county-dependent municipalities. The municipalities are divided into county-independent (*kreisfreie*) and county-dependent (*kreisangehörige*) municipalities. The independent municipalities are responsible for all local competencies that are otherwise divided between the county and municipalities.

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[65] The company is in charge of the construction and maintenance of the ÜSTRA tracks and is owned by the Hanover region (20%) and the city of Hanover (80%).

[66] Dezernat IV (Sicherheit, Wirtschaft und Verkehr)

[67] § 6 Niedersächsisches Nahverkehrsgesetz von 1995

The national level covers the level of the Länder and the Bund. The Bund has primary legal authorities, whereas the Länder level is the most important level for implementing national competencies. German federalism is thus the antithesis of North-American federalism. This is because the Länder jointly decide on regulations through the Federal Council (Bundesrat) if the regulation affects their authorities. Furthermore, the Bund is dependent on the Länder for the implementation of national responsibilities. The German system is thus characterised by a joint decision-making system. The joint decision-making processes require horizontal and vertical co-ordination in ministerial conferences and working groups, where professional administrators of the Länder and the Bund level, and also, to some extent, local representatives participate and create closely-coordinated professional networks (Versäulungen) (Wagener, 1979; Scharpf, 1989) The professional networks are supported by intensive contact with other bodies, professional education, conferences and professional journals that result in similar paradigms. Spatial planning is weakly integrated in such inter-related professional relationships, with the Ministerial Conference on Spatial Planning (Ministerkonferenz für Raumordnung) being primarily a coordinating body[68].

The municipalities are regarded as subordinated sub-territories of the Länder, however with constitutional rights to self government (Art. 28 Abs.2 GG) within the national regulation. The autonomy of the local administration thus creates two different orders of responsibilities: a) autonomous competencies where the Länder can regulate only through constitutional control of the municipalities (*Rechtsaufsicht*) and b) non-autonomous competencies, where the Länder delegated the responsibilities to the local level, but maintain the option of professional instruction (*Fachaufsicht*).

6.2.8 Low level of integration of transport planning in the Hanover region

Integrated transport planning in the Hanover region has primarily resulted in the coordination of regional roads and public transport by road and rail. A systematic integration of the state road development plan and the local transport development planning has yet to be observed. The policy instruments available at regional level are mostly directed towards providing transport services, and not at coordinating transport demand. Thus, instruments such as traffic calming or speed limits in town centres and decision upon parking fees are in the hands of the municipalities. This is also the case for defining environmental zones for restricting automobile use in urban areas in order to reduce particle emissions. Hence, systematic coordination at the regional level in order to reduce individual automobile usage in order to encourage public transport use is hampered by fragmented competencies. The competencies to reduce individual car transport are largely in the hands of the municipalities. The share of public transport in the Hanover region is 17.6 %. In Munich the corresponding share is 31.3 % (Sinz & Blach, 1994).

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[68] This conference (Ministerkonferenz für Raumordnung) coordinates the basic principle of spatial planning through decisions and recommendations. The Länder generally follow these decisions even when they are not binding.

6.3 Goals for land use and transport planning in the Hanover region

In order to illustrate the coordination of residential development and (public) transport as part of a sustainable spatial development in the Hanover region, we have chosen four thematic issues in the case study for Hanover region: *first,* we look at the concepts for location of new residential areas. *Second*, we analyse the location of large area shopping malls and *third*, we analyse the regulation of inherent development in dispersed or rural areas (*Eigenentwicklung*). *Fourth*, we analyse the overall integration of land use and transport planning.

6.3.1 Goals for regional integrated land use and transport planning

The regional goals of land use and transport planning are set down in the regional programme for the Hanover Region. There has been a long history regarding these goals and their implementation has been an integral part of the regional coordination. These basic principles are (Region Hannover, 2006: Vorbemerkung):

- settlement development must be located according to the rail network
- greenbelt and recreation areas close to residential areas are to be preserved
- nature and landscape shall be protected from urban sprawl

In addition the regional programme from 2005 introduced new regulation of residential development in rural areas and coordinated the location of retail trade requiring large surface areas.

The goal of integrated land use and transport planning is specified as a part of the spatial guidelines[69] for the Hanover region. As mentioned before, the combination of settlement and transport is an integral part of the spatial development principles for the Hanover region. In view of economic structural change, demographical development and the pressure on the open landscape, the future challenge is to pursue the planning principles of decentralised concentration and a region of short distances more strongly than ever before. Thus residential areas and the location of work places have to be further concentrated in the central development areas[70]. In local development areas, residential development has to be concentrated in the core areas with high-quality public transport access and in selected rural areas with superior infrastructure provision (Region Hannover, 2005).

[69] Not a legally binding principle of the regional spatial plan from 2005.

[70] Ten municipalities were designated by the Land of Niedersachsen as central development areas: Barsinghausen, Burgdorf, Groβburgwedel in der Stadt Burgwedel, Garbsen, Laatzen, Langenhagen, Lehrte, Neustadt am Rübenberge, Springe and Wunstorf (Region Hannover 2005:4)

6.3.2 The coordination of residential development in regional planning

The coordination of residential development is a core duty within the planning autonomy of the municipalities. Legal instruments are the two-fold planning system of preparatory land use plan (*Flächennutzungsplan*) and binding land use plans (*Bebauungspläne*)[71] . The municipalities are thus obliged to produce land use plans for urban development and these plans must be in accordance with the goals of the regional spatial programs. These goals can be either spatially or sectorally defined, and are binding for the municipalities[72]. The regional spatial program must then be in accordance with the corresponding spatial programme for Niedersachsen. The Niedersachsen programme for sustainable spatial development[73] includes several procedural planning requirements. For the lower planning levels of the regions, counties and municipalities, the national level is required to designate differentiated spatial development areas in connection with planning principles for open spaces (*Freiräume*) and on infrastructure. The planning system thus differentiates between different areas with central functions (*Zentrale Orte*): these are main development areas (*Oberzentren*), central development areas (*Mittelzentren*), and local development areas (*Grundzentren*). The Land designates the central and main development areas, whereas the regions designate the local development areas as settlement development areas in co-operation with the municipalities.

The city of Hanover is designated as the main development area in the region, whereas the towns of Langenhagen, Lehrte, Neustadt and Springe are designated as central development areas by Niedersachsen. In the Hanover region, the regional programme provides the basis for designating the development of residential and commercial areas within the spatial framework of the Niedersachsen planning requirements. The regional programme prescribes the areas with central functions to provide sufficient area and balanced area for settlement development according to the classification of the area. Some local development areas, such as the town of Seelze, which is located on the periphery of the city of Hanover, have become supplementary and have acquired extended urban functions (RROP, 2005: 11, D 1.6.2)

The spatial planning programme for Niedersachsen states that the use of open spaces (*Freiräume*) for settlement development and for roads and other infrastructure dispositions shall be minimized. Open spaces close to residential areas shall be conserved and developed according to their ecological, commercial and social functions. Furthermore, transport infrastructure shall be developed through integrated land use and transport planning with the aim of securing area-wide mobility but following the planning principle of a city and region with “short distances”.

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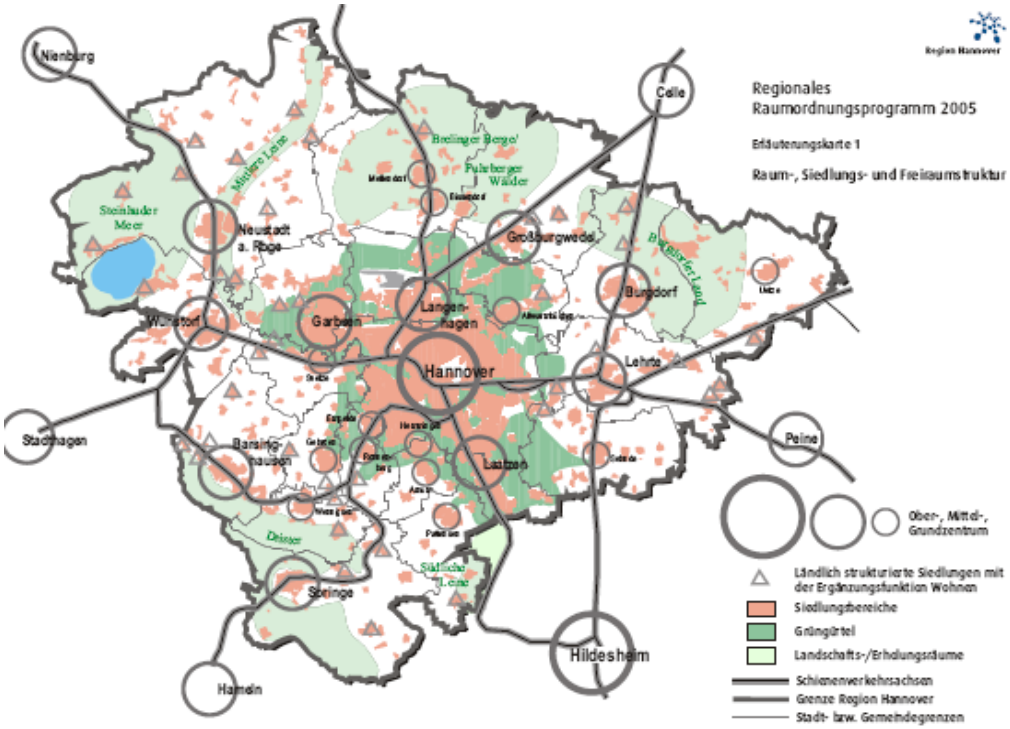
[71] As required in the §§ 1, 5, 9 of the Federal Government Building Act (BauGB)

[72] § 3 Raumordnungsgesetz (ROG)

[73] http://www.ml.niedersachsen.de/master/C39546657_N11234568_L20_D0_I655.html, Stand: 02.01.2008

Figure 6.1 Regional development principle for the Hanover region



Source: Hanover region, 2005

6.3.3 Location of large-area shopping malls

In Hanover there was a new tendency in the 1990s towards large shopping malls outside urban centres (disintegrated location), largely situated on the main road system and close to existing retail businesses (Priebs, 2004:78ff; CIMA, 2007). In recent years, as in the 1970s and 1980s, there has been renewed interest in revitalising urban centres, but with a focus on large retail, leisure and service centres (Köhler, 2007). The role of regional planning of the region in this area has been to secure and maintain local supply facilities for the resident population and to prevent the location of automobile-dependent shopping centres with assortments of shops relevant to urban centres. Regional retail trade plans were thus introduced as an informal planning instrument to close the gap between the goals of integrated land use and transport planning and the sprawl of locations for retail trade in the region. The planning process was started by the Local Association of Greater Hanover in 1998 – 2001, and it was one of the first regional associations in Germany to use retail location plans actively to enable a regional policy on retail trade locations ab initio. A conflict between the municipalities of Hanover and Langenhagen on the location of a shopping mall in Hanover, which would lead to trade leakage from the Langenhagen area, put the focus on this initiative, clarifying the necessity of a regional retail plan. The plan was further developed by the regional planner of the Local Association of Greater Hanover, with the inclusion of municipalities, local authorities and relevant commercial and retail stakeholders. The professional basis of the retail plan was a inventory and classification of the regional centres and retail trade location in the region and a review of the location plans and market in the municipalities.

Between 2005 and 2007 this inventory and evaluation were further elaborated to achieve a comprehensive review of the state of retail trade in the region and to suggest conceptual proposals for the further development of retail trade priorities. A working group with municipal representatives and workshops followed the review and inventory process (Zibell, Loeb & Fürst, 2008).

The "Regional retail trade plan" (*Einzelhandelskonzept*) from 1999/2000 provided planning guidelines large surface retail centres[74]. These guidelines designate planning areas with central functions (*Zentralörtliche Bedeutung*) in order to maintain local supply facilities for the resident population, and to avoid commercial leakage from the local and urban centres to large-scale commercial centres. In addition to this, potential areas for locating retail trade were assessed according to the specific suitability of the location of trade activities, for example, due to different impacts of locations on local and regional trade.

In the regional programme from 2005, core and basic locations of supply facilities, location of retail warehouses of regional importance and specific location of local supply facilities were designated. This spatial determination of retail trade locations was included in the updated retail trade plan (see figure 6.1). Thus, the plan included specific locations within an area with central functions, e.g. a central development area (*Mittelzentren*) or a local development area (*Grundzentren*). Specific spatial demarcation of retail trade location with a designated area thus limits the local planning autonomy of the municipality but enables increased coordination in regard to the planning principle of a polycentric development in the region (Blotevogel, 2002: 285).

The designated areas with central functions in the retail trade plan are mostly the core settlement areas. Specific locations are mostly situated within the centre area such as a commercial town centre, or a village in rural settlement areas.

Table 6.2 Designated areas with central functions

Development areas with local functions	Development area with central functions	Development areas with regional importance
Supermarkets Discounters Hardware stores Low degree of agglomeration	As for local areas, and retail warehouses, furniture etc. Low to medium degree of agglomeration	As for central areas, and retail parks Medium to high degree of agglomeration
Mainly municipality customer area	Cross-municipality customer area	Regional and cross-regional customer area

The inventory of retail trade from 2005 to 2007 showed an increase in sales areas in the region through new locations and expansion, without any subsequent

[74] Defined as: *Planerischer Orientierungsrahmen für Ansiedlungsspielräume*

increase in sales volume. This could indicate that the Regional retail trade plan was not powerful enough to counter the general trend towards green field location of large-space retail parks. Since 2000, two development trends could be observed: *first*, trade volume in the inner town areas of the local and central development areas is decreasing. *Second*, local supply facilities for the resident population are deteriorating (Region Hannover, 2007:1f).

The most important function of the Regional retail trade plan is to increase the transparency of the criteria for the location and extension of retail trade centres. For both investors and municipalities, the plan provides information about the areas that would be easily acceptable according to the regional spatial programme and which areas could cause conflicts. This has reduced both the project outlay and the number of project applications. The former is because the Regional retail trade plan makes additional assessment superfluous. The latter is because the investors and municipalities may assess the chances of building permission according to the plan. In the Hanover region, the retail trade plan has been formally included as an amendment to the regional programme, thus gaining the highest legal status possible. The Building Act requires the municipality to be in accordance with the regional programme. However, if a retail development project is in conflict with regional planning requirements, the municipalities have the option of applying for an amendment to the regional programme. The Regional retail trade plan is thus regarded as a sufficiently flexible instrument (Zibell, Loeb & Fürst, 2008).

6.3.4 Regulation of residential development in rural areas

Regulation of residential development in small rural settlement areas[75] through inherent development limits (*Eigenentwicklung)* is an instrument that is closely connected with the goals of integrated transport- and land use planning, avoiding residential sprawl in the landscape and minimising the cost of transport infrastructure. For the most part, the inherent development limits are set up based on the expected population growth and adapted to local conditions in rural areas. Regulation is thus maintained in a flexible manner.[76] The concept of inherent development in rural areas in Hanover is defined spatially. The rural areas in the municipalities cannot designate new residential areas that exceed 5 per cent of the total built-up land in a defined district. For all land use activities within the Hanover region, there is a regional register where the exact area permitted for inherent development is specified, and land use is then controlled by aerial photographs (RROP, 2005).

The region of Hanover is thus able to coordinate land use development in rural areas positively by defining centres with regional functions, reducing urban sprawl by regulating inherent development and limiting construction in open countryside. In practice, acceptance of the instrument can be seen as a consequence of procedural implementation: *first*, the municipalities were actively

[75] The German notion *Eigenentwicklung* could be translated as *inherent development*

[76] Different concepts have been applied in Germany since the mid 1960s (Reitzig 2001(a)), but have been seen as antagonistic to local autonomy. In the Land of Niedersachsen, inherent development limits were prohibited for a period in the 1980s (Münzer 1995).

involved in implementing the concept and *second*, the region has been willing to find flexible solutions when negative effects of developments limits occurred, for instance through depopulation (Zibell, Loeb & Fürst, 2008).

6.3.5 Summing up: key issues in the planning of land use and transport in the Hanover region

In the Hanover region, there has been a continuous historical emphasis on a regional planning concept that integrates land use and transport planning, firstly through the Local Association of Greater Hanover and secondly, with the foundation of the Hanover region in 2001. Tendencies towards urban sprawl and increased motorised transport have thus been in line with region policy goals for land use and transport planning. Key issues that have been addressed in the region have been related to the implementation of:

- institutional conditions in the region for integrated land use and transport planning through the regional programme
- the effects of the decision and guiding principles in the regional programme for the coordination of residential development in regional planning
- implementation and the Regional retail trade plan and its effects on the location of large area shopping malls
- the coordination of residential development in rural areas to prevent urban sprawl through regulation of preparatory land use plans at municipal level.

A strong regional level in Hanover region clearly sets the framework for well-integrated land use and transport planning. In section 6.4 below, we will analyse how regional governance contributes to integrated land use and transport planning by analysing how the key issues listed above are implemented in the regional plan and its realisation. Subsequently we will describe how the institutional conditions in the regional model influence this. Are there conflicts between the regional level and the municipalities and how are these potential conflicts solved in day-to-day politics and the regional planning process?

6.4 How does regional governance contribute to integrated land use and transport planning in the Hanover region?

The regional level in Hanover has been described as strong, with a parliamentary system with a formalised administrative level. The region manages and controls the overall political process of spatial development and transport planning. The reorganisation of the region aimed at creating a clear division between local and regional duties and responsibilities according to the spatial character of the task[77]. The region possesses a general regulative authority towards the local level with binding legal effects for third parties (see section 6.2 above). This would, as for the Funen case, lead us to expect that the regional level – here constituted by the

[77] The municipality thus become responsible body for primary schools, building inspection and environmental administration.

Hanover region as successor of the counties and association of counties- would have a strong position compared with the municipalities. In this section, we will analyse the empirical evidence for the assumption that the specific regional model of Hanover contributes to a strong integration of land use and transport planning. We will do this by looking at the implementation of the principles set down in the regional spatial programme: on the one hand, concentrating residential development, and on the other hand avoiding retail trade concentration in large shopping malls outside the urban centres. *First*, we will look at the procedure for the regional plan, including inter-municipality coordination of residential development in urban and rural settings. *Second*, we will analyse the implementation of the retail trade plan. *Third*, we will analyse the findings to assess the institutional conditions and the coordination mechanisms for integrated land use and transport planning in Hanover.

6.4.1 Regional planning as a tool for integrating land use and transport planning

According to the "counterflow principle" (*Gegenstromprinzip)* the regional development scheme is developed as an interaction between the Länder, the region and the municipalities, and the sectoral administration. The plan must be in accordance with the principle of the spatial program of the Land of Niedersachsen and implement and specify these principles. However, the Hanover region often has taken the initiative for innovation in Niedersachsen planning such as priority areas for nature and landscape protection areas, green belts and Regional retail trade plans (*Einzelhandelskonzepte*). The region must further adapt the national planning goals for the specific requirements of the region, and this adaptation is part of a complex and extensive dialogue with multiple stakeholders such as the municipalities, professional agencies and external experts. The process of developing a regional programme lasts 2 to 5 years. The procedure is, to a large extent, based on consensus. Zibell, Loeb and Fürst (2008) state that in spite of clear requirements from the Niedersachsen spatial programme, it would not be feasible to decide upon a binding legislative plan that is in conflict with strong regional interests.

There are several instruments that are used in the planning procedure to obtain a consensus among the participators:

- expert workshops
- discourse in the informal technical regional round tables. In these meetings, regional planners meet municipality planners and administrators several times a year
- bilateral meetings between regional planners and the municipalities.
- participation of political parties in the regional assembly
- formal participation procedures according to regulations as foreseen by the Niedersachsen planning requirements.

The consensus-based procedure for the spatial planning process is, however, done under the shadow of the hierarchy (Scharpf, 1991: 629; 2000:92) as the planning laws require that the regional decision process must succeed and be in accordance with the planning interests at the state level.

The extensive participation process is, according to Zibell, Loeb and Fürst (2008), taken seriously by the region for three reasons. *First*, participation will secure broad acceptance. *Second*, participation secures sufficient coordination between all decisions that are relevant for spatial development. *Third*, participation is used to broaden the awareness of spatial planning as being relevant to the public interest, such as sustainable use of natural resources for future generations.

6.4.1.1 Coordination of large scale residential developments

The regional and national goals for integrated land use and transport planning can often be challenged by local perceptions of urban development in specific processes. The former Association of the counties in the Hanover region (*Kommunalverband Großraum Hannover*) was criticised by the municipalities as limiting local autonomy too much (Zibell, Loeb & Fürst, 2008). These criticisms are, however, not new. When the regional spatial programme was set up in 1996, the proposed urban areas for priority residential development in the regional programme was criticised (Priebs, 2004). An active dialogue between the Hanover region and the municipalities has lead to a general acceptance of this concept in the regional spatial programme from 2005.

How efficient are the policy instruments of the regional programme? We have analysed this by looking at the planning tool of designating priority areas for large scale residential developments.[78] The large development projects chosen to elaborate this question were:

- the new settlement area of Kronsberg at the outer border of the municipality of Hanover
- the enlarged residential area of Weiherfeld in Kaltenweide, located in Langenhagen
- the residential development area of Seelze-Süd.

The criteria for this selection were the location in the surrounding area of the regional centre of Hanover; municipalities that are closely interlinked with Hanover and municipalities with a high population density that causes high pressure on open landscape and green belts (NLS, 2007:103). In addition the three cases represent large-scale developments of regional spatial importance, representing the development of new settlement areas that are relevant both to public transport and to the quality of the planning process. In a regional perspective all three development projects were regarded as "without alternative" (Interview, November 2007[79]).

6.4.1.1.1 New settlement area near the Expo area in Hanover – Kronsberg

The area of Kronsberg is situated in the borough of Bemerode with 17,400 inhabitants in the south of Hanover. The development of the project was realised as part of the Expo2000 development. Within a short period, it was possible for

[78] Vorranggebiete für Siedlungsentwicklung

[79] Priebs 28.11.2007

the municipality of Hanover to develop the project with support from the Niedersachsen programme for residential construction. The development land was originally municipally-owned. To date about 3,000 residences have been built. There are plans to construct another 3000 housing units, partly as attached houses and partly as flats for approximately 15,000 inhabitants. Land use and transport planning were highly integrated in the development of the Kronsberg area. The new township was connected to the public transport through a extension of the rail network. The Kronsberg area was planned around a local centre with social, commercial and cultural and service provisions, such as kindergarten and schools.

The planning process was realised as a residential model for ecological planning as part of the Expo2000 world exhibition. The development plan includes space-saving planning, environmental-friendly transport concepts, high quality green surroundings, co-location of work places and housing, ecological concepts for drainage and a local, combined heat, electricity plant for energy production (LHH, 1999).

The planning basis of the development of the area started in 1991/92. As Kronsberg was part of a open landscape, there was need for spatial consideration proceedings to obtain permission to deviate from the planning objective. In 1994 the city of Hanover granted permission for the construction of 6,000 housing units and decided on public transport access to the township and the Expo2000 area. The city of Hanover also decided on the structure of the settlement in the existing greenbelts. An urban pattern of the development area was set through building requirements, establishing building limit lines, floor space and floor numbers (Rumming w.Y, 2). The realisation of the project was enabled through urban development contracts with the private investors. The revenues from municipal land contributed to financing further infrastructural investments.

The development of the Kronsberg area is an example of local autonomy in regard to planning priorities. The project was in accordance with the regional planning requirements[80] for integrated land use and transport. There were, however, some regionally-biased conflicts on the location of the residential area. The adjoining municipality of Laatzen proposed situating the area closer to its municipality border in order to ensure an extension of the public railway line to Laatzen. Such an extension would significantly reduce the travelling time from Laatzen to the centre of Hanover. In this conflict, the former Local Association of the Greater Hanover had little formal power to interfere, so the conflict had to be solved by the conflicting municipalities. This conflict was then characterised by conflicting interests, such as cost-sharing for investments, local development of the borough of Bemerode, and commercial leakage towards Laatzen. The informal co-ordination within the planning of the Expo2000 area, with public transport and road alignment, favoured the Kronsberg location. Thus, regional planning concerns did not dominate.

[80] Of the former Association of the counties in the Hanover region (*Kommunalverband Großraum Hannover*)

6.4.1.1.2 Weiherfeld in Kaltenweide, Langenhagen

The residential area of Weiherfeld is located in the borough of Kaltenweide in the north of the municipality of Langenhagen (central development area). Kaltenweide had 2,000 inhabitants. The residential development project of Weiherfeld adds a population of 6,000 persons and 1,800 housing units. The first building phase started in 1997. The planning prescribed multi-family units and terraced housing. The location of Weiherfeld with regard to land use and transport planning could be seen as somewhat contradictory: o*n the one hand*, the project is largely in accordance with the regional planning requirements[81] for integrated land use and transport with access to public rail transport and the development of a local centre and service provisions. In addition the new population was given special offers for season tickets (ÜSTRA-abo) and car sharing initiatives in order to reduce the dependency on private cars. *On the other hand*, these offers have not been widely accepted, as the households in the settlement of Weiherfeld are largely young families dependent on cars. There has also been a shift towards single family houses in the development area due to changing market conditions.

The main reason for the residential project in Weiherfeld was the development of a new public rail transport (*S-Bahn*) for the Expo2000 exhibition.. The former Local Association of Greater Hanover thus supported the development plans for Weiherfeld. A relocation of the urban rail station (*S-Bahnhof*) rendered the development of a residential area in the surrounding of the railway station possible. This opportunity was highly favoured by Langenhagen, where there are few possible development areas due to noise restrictions around the airport of Langenhagen (LROP, 1994, 2007; ZGH, 1991). The development area of Weiherfeld was designated in the regional programme of 1996 and in the regional programme from 2005 Langenhagen was given an enhanced status as a "prioritised area for residential development"[82] and Kaltenweide-Weiherfeld was designated as development area of "particular importance"[83] (RROP, 2005:D1.6.2).

From a municipal point of view, cooperation with the Hanover region (and the former Local Association of Greater Hanover) was deemed to function well. When the Hanover region was established in 2001, the division of competencies between the regional level and the municipal level simplified the planning process: the region is the approbation authority for the preparatory land use plans and the region has the responsibility for county streets. Furthermore, the organisational structure in the region is similar to the structure in the counties. This makes it easier to find contact persons and to establish a professional dialogue. Furthermore, a large part of the negotiations with the municipalities surrounding Hanover was moderated through the region. The municipality of Langenhagen perceived this as clear advantage (as expressed in interviews).

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[81] Of the former Association of the counties in the Hanover region (*Kommunalverband Großraum Hannover*)

[82] "Schwerpunkt für die Sicherung und Entwicklung von Wohnstätten"

[83] "Herausgehobene Bedeutung"

The region was thus seen as a positive moderator and mediating level in inter-municipality co-operation, for example, mediating between Langenhagen and Garbsen. This mediation was, however, also seen as a result of the personalities in the parties that aimed at achieving a compromise.

6.4.1.1.3 Seelze-Süd

The municipality of Seelze, with 34,500 inhabitants, is designated as a local development centre in the regional programme from 2005 (RROP, 2005:D.1.6.1). The residential development area of Seelze-Süd was first considered after the residential demand analysis was carried out by the Local Association of Greater Hanover in 1991. The first development plan for Seelze-Süd identified areas for 2950 housing units for urban residential development, comprising mainly multi-family houses and flats. The decision to realise the development project was made in 1996 and the first housing was finished in 2002. At present, Seelze-Süd has approximately 1,000 inhabitants, of whom about half come from Seelze and the other half from Hanover and the region. The original goal of 5,000 new inhabitants was subsequently reduced to 2,500 inhabitants and hence only 960 housing units. The third construction phase will probably not take place. In regard to the regional requirements for integrated land use and transport policy, the project is ambiguous: the development project of Seelze-Süd is situated west of the city of Hanover and has several main road and rail connections, and Seelze-Süd is also clearly located in accordance with the principles of a decentralised concentration of residential areas in the Hanover region and has countered the depopulation of the municipality. However, the planning of Seelze-Süd is regarded as insufficient. The planning goal of urban-like settlements has been abandoned in favour of single-family houses and attached houses. The investment in public infrastructure measures has been too high and has led to municipality deficits, but the necessary renewal of the pedestrian routes over the railway lines has not yet been realised. Furthermore, noise disturbance from the railway shunting yard in Seelze has not been sufficiently considered and the national road B441 runs through the development area. Relocating this stretch does not seem feasible at present.

In light of the planning deficits for Seelze-Süd, we could assume that the former Local Association of Greater Hanover played a limited role as professional adviser for the development of the new township of Seelze-Süd. The Association did not oppose it, as the planning principles of concentrated urbanised planning concept were neglected. From the municipality of Seelze, cooperation with the regional level has been regarded as positive, whereas the regional level has been seen as supportive. The change following the foundation of the Hanover Region did not alter this climate of cooperation due to continuity of personnel.

6.4.1.1.4 Regional planning consideration for large-scale development areas

The role of the region in residential development has been continuous and active. Institutional structures with strong professional bodies have lead to regional coordination that has been largely accepted by the municipalities. As the Land opposed the instrument of residential development (prioritised area for large scale), the regional level countered this by using the restrictive planning instrument of limiting building in open landscapes and greenbelts. At present, the regional level can coordinate residential development with the two instruments of prioritising areas designated for residential development and regulating construction in the open landscape.

However, the ideal planning process in the 1990s could not easily be implemented. According to the responsible planners at regional level, detailed development of the prioritised development areas did put pressure on the relationship between the municipalities and the regional institutions.The municipality planners now share the professional view that residential areas without public transport access and basic commercial and service provisions are not sustainable. Demographical development also has enforced the understanding that regional coordination is necessary.

However, the regional planning doctrine of large-scale concentrations in urban residential areas was applied to new settlement areas, where there was not enough demand for multi-family houses concentrated around public transport nodes to justify large-scale development projects. The principle of prioritised residential development areas has thus been abandoned in the regional programme of 2005. The estimate of three large development projects in the Hanover region is regarded as "without alternative" from a regional point of view, but there are ambiguous evaluations of the development programme in Seelze-Süd. The development of Seelze-Süd and Weiherfeld were, however, joint projects by the municipalities and the region. According to the regional programme from 1996, both areas were regarded as sustainable and well-suited for residential development due to public transport access potential. Due to the location of the airport, Langenhagen did not have alternative development areas. Seelze had restrictions on alternative development areas due to the threat of flooding along the river Leine. Furthermore, there was a common understanding between the municipality of Seelze and the region that further residential development the smaller villages in the Seelze should be avoided.

6.4.1.2 The coordination of residential development in rural areas through inherent development limits

The coordination of residential development in rural areas through the instrument of inherent development limits has been exemplified through the analysis of four municipalities[84], where

- several boroughs are restricted
- the municipalities aim at increasing population
- the population has experienced growth or declining growth

[84] Neustadt a.R., Sehnde, Springe and Wedemark

The case study municipalities consist of both central and local development areas. For the empirical analysis we asked firstly if the municipalities were able to implement the inherent development limits acceptable to the borough representatives, *secondly*, how the instrument of inherent development limits in rural areas was adapted, when boroughs experiences high growth demand or the opposite and *thirdly*, how consequently the municipalities follow up their development limits in cases of conflict. *Fourthly*, we were interested in how the municipalities handle the instrument of inherent development limits when experiencing competition with larger municipalities with population growth.

6.4.1.2.1 Experiences with the instrument of inherent development limits

An analysis of four municipalities in the Hanover region shows that the municipalities were able to implement the development limits for the districts which were accepted by the municipalities. The differences could be explained by different interests and planning priorities (Neustadt a.R and Springe). One reason for this was that the instrument was implemented in a flexible manner, taking into account the specific development of the districts, for example due to service provision threats caused by depopulation. However, when a rural district wants to exceed its development limits, the region must object to this (Rethmar) and enforce the development limits when there are conflicting interests, primarily to avoid creating precedence in the region. Thus there are empirical indicators that the region does use the instrument actively to pursuit its planning goal of a concentrated decentralisation.

The implementation and practical experience with inherent development limits have differed somewhat in the four municipalities:

Neustadt a.R. is a central development area (48,000 inhabitants) in the outer area of the Hanover region. The centre of Neustadt (18,000 inhabitants) has good connections to the public transport system with the Deutsche Bahn and light-rail connections (S-bahn) and several bus lines. There are 23 boroughs that are regulated by the inherent development limits, but the residential development in the municipality is primarily concentrated in the designated development areas. The municipality has been in favour of regulation through development limits, as the municipality was a co-initiator of the concept. The concept is largely in accordance with the local land use policy. In 2004 Neustadt a.R. decided on a preparatory land use plan with sufficient reserves for residential development. The municipality has anticipated that depopulation and concentration in the development areas will be a trend in the near future. Neustadt a.R. consequently uses urban development contracts with the property developers. The property developers have to cover the costs of social infrastructure, such as schools and kindergartens, and this instrument favours high demand in larger development projects. Thus, a regional tool to avoid urban sprawl was also in the interests of the municipality.

Sehnde is classified as a local development centre with the purpose of securing residential development with the specific status of complementary development to relieve the city of Hanover and the central development areas. In the regional spatial programme, the municipality is regarded as a municipality with expected growth and thus there is some pressure for designating building land. Only the

boroughs of Höver and Iltens have been designated as development areas. The remaining villages and rural areas of the municipality are regulated by inherent development limits. The municipality of Sehnde accepts the principle of regulation, but is critical of its implementation, saying that the concept is too rigid to allow for special development needs. The criteria for obtaining an increased development limit are, according to the municipality, too narrow. The case of Rethmar illustrates this. An urban development contract was used to secure the renovation and public use of the local manor house. The Hanover region opposed an extension of the further settlement development in the borough of Rethmar as the 5 per cent limit for residential development would be exceeded. The municipality of Sehnde then proposed to reduce the inherent growth limit of other boroughs to justify this development, but the Hanover region was reluctant to accept this proposal.

Springe (30,000 inhabitants) is a central development area with public transport access towards Hanover and the airport of Langenhagen. Three boroughs with public transport access are designated as rural development areas for residential purposes. The other eight boroughs are subject to the inherent development limits. The concept of inherent development limits has been supported by the municipality. *First*, the municipality regards the concept as a useful instrument to promote concentration in an area with population stagnation. *Second*, the preparatory land use plan has sufficient development reserves. Third, the mandatory limits set by the region authorise the municipality to act restrictively towards the boroughs. The municipality thus sees the instrument of inherent development limits as being in accordance with its own planning interests. However, the concept may threaten the local autonomy through strong regional co-ordination that reduces the significance of the preparatory land use plan as a local planning instrument.

Wedemark has 29,000 inhabitants, but only three boroughs[85] have public rail transport links to Hanover. These three areas are designated as residential development centres and the rest of the fairly large municipality (173 sq m) is regulated through inherent development limits. The municipality supports the concept but there was some discussion about the calculation of the designated residential areas not covered by the preparatory land use plan. The demand for building land has largely been in accordance with the strategy of concentrating in the designated development areas and the municipality of Wedemark has supported this. There have been conflicts, for example in the borough of Resse with 2,500 inhabitants, which is primarily an automobile-based community. The municipality proposed exceeding the growth limits by designating supplementary development areas using the argument that the local retail trade provision was endangered. A similar conflict can be observed in the borough of Brelingen, however, in this case a local initiative proposed residential development to support a local retail shop. In both cases the Hanover region has opposed granting exemption from the inherent development limits.

[85] Elze/Bennemühlen, Mellendorf and Bissendorf

6.4.1.2.2 Regional planning considerations on inherent development limits

From a regional perspective, the instrument of inherent development limits could be regarded as an important supplement to coordination through the designation of growth areas and the protection of open landscape. The inherent development limits thus contribute to preventing municipalities designating more development areas than would be acceptable in accordance with regional planning requirements. The empirical evidence from the four municipalities studied in the Hanover region shows that the regulation has been broadly accepted, not least as a result of inclusion in the implementation and calculation of building land reserves. In exchange, spatial planning at the regional level has supported the issue of sustainable rural community development (*Dorfentwicklung*) throughout the 1990s (Kommunalverband, 1998). The Hanover region has also put emphasis on local participation initiatives "from below" to encourage a dialogue-based, creative development of rural areas.

The inherent development limits is strongly reinforced and implemented: It has been included in the regional spatial programme which is legally binding, in addition there exists a register of designated building land covering the whole region and the Hanover region is responsible for approving preparatory land use plans as well as the legally binding land-use plans.

The operation of the inherent development limits could be made more flexible through a "cap on trading " and a "land use trading system" within a municipality. The region, however, is reluctant to accept a regional trading system, which would allow municipalities to exceed their limits provided other municipalities would give up their extension rights accordingly. The region fears that such an arrangement could undermine the efficiency of the instrument.

6.4.2 Implementation of the Regional retail trade plan, and its effects on the location of large-area shopping malls

In order to analyse the implementation of the Regional retail trade plan, we have chosen to interview representatives from the region and from three municipalities. In the municipality of Langenhagen, planning of a retail warehouse was implemented according to the retail plan and without conflict. In Sehnde, a planned retail trade centre "Bauboulevard" was not implemented, whereas in Lehrte a retail trade centre "Zuckerfabrik" was implemented in accordance with regional planning requirements.

6.4.2.1 Location of retail trade in the Hanover region - three cases

Langenhagen is a municipality of 51,000 inhabitants and is designated as a central development area with large international commercial enterprises. As part of the Hanoverian "suburbs"; Langenhagen has no clear urban centre. The retail trade centre "City Centre Langenhagen" was opened in 1982. The retail trade centre for building materials and furniture (Westfalenstraβe) was planned on a former commercial area. The development of the Westfalenstraβe Centre was coordinated with the region and with the neighbouring municipalities of Hanover and Garbsen. Hanover raised concerns that the centre could develop into a retail trade mall. In the regional spatial programme from 2005, boundaries were set for the Westfalenstraβe Centre and it stated that development of the centre had to be

controlled to protect the retail trade of the urban centres. The floor space was limited to 30,000 m^2 and a restructuring of the neighbouring commercial areas for trade purposes was turned down.

In the local development area of Sehnde, the project "Bauboulevard" was initiated by private investors in 2000. The retail trade centre of 32,000 m^2 for do-it-yourself stores and a large carpet store (Teppich Kibek) was proposed at the boundary between Sehnde and Hanover, connected to the highway. The location was designated as non-integrated and mainly reachable by car. Coordination with Hanover and Sehnde was regarded as a precondition for the spatial assessment by the Local Association of Greater Hanover. Hanover criticised the inclusion of associated retail facilities in the centre. The proposal was then abandoned as one of the project partners[86] withdrew from the project. In 2003 Teppich Kibek re-launched a modified proposal for a 9,300 m^2 carpet warehouse and 700 m^2 of associated retail facilities. This proposal was considered to be in accordance with Regional retail trade plan and the Hanover region thus initiated an amendment to the regional spatial programme. The city of Hanover then objected to the plans and argued that approval could lead to an incremental change that would lead to an agglomeration of retail trade. The Hanover region supported the objections and the project was subsequently rejected.

The municipality of Lehrte is situated east of Hanover and has 44,000 inhabitants. The centre of the town is characterised by the railway station that has established the conditions for urban planning. The retail trade centre "Zuckerfabrik" was thus launched to revitalise a former industrial site by developing a retail trade centre in the urban centre. This was in accordance with a location policy of Lehrte that aimed at avoiding locating trade on greenfield sites. The town council was reluctant about the retail project, but approved it in order to slow down retail trade losses to surrounding municipalities. The project was realised in 2005 with a floor space of 10,000 m^2.

Representatives in all of the three municipalities state that the Regional retail trade plan is a reasonable and viable instrument for the region. The inclusion of the municipalities in the decision process is mentioned by the local representatives. From a local point of view, however, dispensations and special regulations are criticised: the different municipalities were, according to one representative, measured using different yardsticks. The different municipalities point towards the location of discount stores and large-scale stores – such as IKEA – in other parts of the region. The region has furthermore not altered the strong central position of Hanover in the decision processes. However, in spite of divergent evaluations of specific development projects, the municipalities regard the relationship with the region as functioning well. The local representatives particularly highlight the role of the region as a mediator between conflicting interests of the different municipalities.

[86] Behling Bauprojekt AG

6.4.2.2 Regional planning considerations on retail trade

The Regional retail trade plan of 1998 was regarded as a new instrument at regional level. The Hanover region is a German pilot scheme with regard to the implementation of the retail plan. From a regional perspective, the decision-making process in the Regional retail trade plan was successful. Through the planning process, a common problem perception among important stakeholders could be discussed that enabled consensus on the perception of what should be considered as regionally reasonable. The initiative for a regional spatial programme was taken following conflict between two municipalities and thus provided a window of opportunity to mobilise the stakeholders. One principle for the plan was to allow the municipalities to follow their planning interests, but at the same time avoid exploitation at the cost of other municipalities in the region. Transparency in the planning process was important in order to impose limits on potential "mavericks." A crucial success factor was establishing trust among the participating municipalities, as the Regional retail trade plan could be regarded as a cartel agreement. The regional planners also chose a strategy of building trust through successful mediation and renounced the grand master plan.

There is still little practical experience with the implementation of the retail trade plan. Trusting that the other municipalities are keeping in line with the regional spatial programme is crucial. This puts the Hanover region in a dilemma: when the region does not take the special situation of a municipality into sufficiently into account, it will be deemed inflexible. If it allows for dispensations, trust in the regional code of practice will be fragile or the efficacy of the plan will be reduced through the establishment of new precedents.

6.4.3 Institutional conditions for integrating land use and transport policy

The main aim of the Hanover case study has been to study how the regional level performed as an institution for integrating land use and transport planning. However, regional co-operation has demonstrated great continuity long before the regional reform in 2001 and the planning tools at regional level were well-established in the Hanover region. This indicates that the formal reform creating the Hanover region with a parliamentary system and broad competencies is in accordance with the practical planning schemes.

6.4.3.1 The role of the regional level in the political administrative system

The explanation for this is that the former Regional Association in the Hanover region (*Kommunalverband Großraum Hannover*) exhibited the same coordination advantages as the later Hanover region. *First*, there was only one institution in charge of infrastructure planning and operation of public transport. *Second*, transparency and high professionalism in the transport planning and *third*, the coordination of public transport tendering have not been altered: the former Association gave, and now the region gives, differentiated framework conditions that lay down the premises for the private transport services.

Changes after the creation of the region in 2001 are primarily due to the strength of a large professional administration in both the municipalities and the Land. Furthermore, both regional land use planning and transport planning have a higher

status through the increased authoritative impact of the region. With regard to land use planning, the competencies of the region to approve preparatory and binding land use plans are important. Also, the integration between public transport and road planning is higher in the new region, with a higher degree of professional co-operation and contact.

In addition to the new competencies, a strengthening of the regional level through establishing autonomous administration and regional policy representation can be observed. Thus the professionals have a higher standing in the regional assembly in their capacity as members of the administrative staff in comparison to the former regional assembly which consisted if representatives of local authorities with local interests.

In general, the region is more exposed to media coverage than the former local association of the counties. Furthermore, there seems to be more emphasis on the policy preferences of the parties than in the former association model with representation through local delegates. In the former model a local association of counties, antagonism between the municipalities and the county could be observed, as in other regions in Niedersachsen.

6.4.3.2 Division of competencies between the administrative Levels

Initially, we assumed that a formalised political-administrative system at the regional level, such as in the Hanover region would be adequate to address problems, formulate policies and come up with solutions and priorities that would facilitate the integration of land use and transport. In the Hanover region, there has however, been a long tradition of regional spatial planning that covered a regional consensus on the principles of integrated land use and transport planning. The establishment of the Hanover region contributed to and institutionalised this regional role. The development of regional retail trade plans and the use of inherent development limits support the assumption of the need of a strong region to secure integrated land use and transport planning. Broad planning competencies were simply a precondition for taking legally- binding planning instruments into use that put limits on municipal land use expansion for retail trade and residential development in non-integrated areas. The initiative for developing retail trade plans, for example, was taken as a result of specific conflicts between two municipalities that clearly showed the necessity of a regional planning instrument.

In the stronger formalised regional governance models of the Hanover region, we furthermore assumed that the local levels would be less involved in land use and transport planning at the regional level as the regions set the conditions for local planning. If this were the case, then the result could easily be more conflicts between the local and regional levels, *e.g.* on the implementation of crucial planning issues such as the development and location of larger shopping malls or on residential development in rural areas of the municipalities in the region. The case studies analysed in this study show that there have been conflicts of interests, but that the region served as an efficient administrative level to find solutions and compromises. The municipalities questioned in this study broadly supported the role of the region and highlighted its role as a mediator between the conflicting interests of the municipalities and competing development centres in the region.

On reason for the low level of conflict can be seen in the overall legitimacy of the regional level in Hanover. *First*, the region could be seen as a policy and administrative level with a higher political legitimacy than the former local association, accepted as a natural institutional development in the region and taken for granted. *Second*, the region has been able to gain trust by involving the municipalities in the planning processes and the development of planning instruments as inherent development limits. Furthermore, the region was, as above mentioned, seen as a necessary mediator between local interests in the region. Third, the region has strengthened the professional community of planners in the region. The Division of Spatial Planning in the regional administration has 28 employees covering a broad range of planning tasks and with wide-ranging contacts with local professionals.

The Hanover region has thus been successful in setting substantial requirements for the municipalities aimed at concentrating locations according to the planning principles of the region.

6.4.3.3 Policy instruments available at the regional level in the Hanover region

We have assumed that a strong regional level will strengthen the possibilities of integrating spatial and transport planning, *e.g.* by land use planning priorities and better integration of investment priorities with local policy instruments, such as parking regulations. A broadening of available policy instruments, such as combined land use and transport planning in combination with decision-making competencies on road investments would thus contribute significantly to consolidating the importance of the regional level in the Hanover region. This broadening of instruments in the Hanover region seems to be linked primarily to planning competencies. The region approves both preparatory and binding land use plans. Furthermore, it has developed the instrument of inherent development limits. The region has also continued the policy of designation of development areas in order to actively pursue the goal of decentralised concentration in the regional spatial programme.

The Hanover region applies both positive and restrictive instruments for location. On the one hand they actively coordinate the location of residential and commercial buildings through the designation of development areas[87]. On the other hand, they can limit urban sprawl using inherent development limits in rural areas and through building restrictions in open landscape and green belts.

Also the integration of land use and public transport planning must be said to be strong, as the regional spatial programme links settlement development with the rail system. Furthermore, the region has wide-ranging expertise in operational planning of the public transport through an active role as purchaser of public transport services that includes decisions about timetables and tariffs, contracts with the operators and coordination of information for travellers. The public transport supply is thus coordinated as a single integrated public transport concept

[87] Defined as: *Zentrale-Orte-Konzept*, *Vorranggebiete für Siedlungsentwicklung*, *Eignungsgebiete-Ansatz*

through one department in the Hanover region, and the region is in charge of the public transport plan.

Thus, it may be concluded that the regional model of the Hanover region seems to possess the available policy instruments needed to integrate land use and transport planning. However, some shortcomings may hamper the implementation, such as the strong bargaining power of important investors that force municipalities and the region to make concessions[88]. Furthermore, the realisation of development areas may be dependent on other authorities and stakeholders, such as the national road administration and energy supply companies. The regional level does not possess the means for financing new infrastructure needed in development areas. Furthermore, the region has few instruments to strengthen its position towards the state road authority and sector-oriented road planning instruments. There has, however, been a strengthening of the regional level through the instruments of spatial impact assessment for road infrastructure projects and through strategic environmental assessments (SEA) that can point at conflict areas early in the planning phase (BMVBS, 2007). When implementing road projects, the regional level can only influence the spatial location of roads through environmental impact assessments.

In the Hanover region, the municipalities are the key players in reducing individual motorised transport, as they are in charge of restrictive measures such as road calming projects, speed regulation in urban zones and parking policies. This means that the instruments available at regional level are limited. Other policy instruments such as environmental charges, for example, toll and CO_2-emission taxes, are decided on at the national level.

6.4.3.4 Division of competencies between sectors in the Hanover region

In the Hanover region, we expected that the strong administrative capacity and the functional coordination of both spatial and transport policies at regional level would contribute to an integrated land use and transport policy. We furthermore assumed that the clear division between the sectors could be an obstacle for integrated policy implementation embracing land use planning, transport planning and public transport services in the region. A large administration covering a broad range of sectors, as in the Hanover region, could have its limitations, as procedures are more formalised and the institutional barriers between the regional and the municipal level seems to be higher, at least psychologically (Zibell, Loeb & Fürst, 2008).

For the integration of land use and road transport planning, the division between sector policy and spatial planning could be confirmed. The division of competencies within the roads sector and the public transport and planning sectors are, however, due to the marginal role of the regional level when it comes to road transport (see 6.4.3.3). To achieve "bargaining power" in the state-dominated multi-level governance of road infrastructure planning, the regions can only gain influence when supported by the municipalities and local politicians. The spatial planners in the Hanover region thus criticise the fact that regional spatial concerns are not sufficiently taken into account, due to lack of influence on road planning

[88] As for large enterprises such as ALDI and IKEA.

at the national level. Furthermore, the region only influences the Bund through its influence on the Niedersachsen planning. Here, the Ministry of Agriculture is responsible for spatial planning and the Ministry of Trade and Industry is in charge of transport planning. The former is focused on rural development and the latter is - in Niedersachsen - following a neo-liberal course, reluctant to accept pro-active land use planning efforts (Zibell, Loeb & Fürst, 2008).

This lack of integration does not apply to the sector division between public transport and regional spatial planning: the institutional conditions for integration have been highly favourable. Since 1969 the region has been in charge of public transport. Public transport and spatial planning are coordinated partly through coordination talks and round-table talks with the administrative heads and the relevant professionals. The stakeholders involved are both representatives from the municipalities in the region and from the Hanover region, whereas the state level plays a minor role. At a practical level, the professionals in the administration constitute "advocacy coalitions" with both academics and local politicians (Sabatier 1998).

To sum up, the division of competencies between the policy sectors in the Hanover region was confirmed for road transport planning, but not for the integration between public transport and land use planning. However the division was not due to divided sectors within the region, but can be explained by a lack of regional competencies for road transport planning.

6.5 Regional governance in Hanover – the strength of the regional model

The regional spatial programme as such must be seen as the main instrument for influencing spatial development at regional level. The regional model of Greater Hanover combined with the planning requirements of the Land Niedersachsen, and thus the formal competencies to designate development areas, may be seen as an ideal model of spatial planning at the regional level[89]. A strong professional consensus at regional level on the principle of integrated land use and transport policy with a clear regional planning concept (decentralised concentration) has been pursued consistently. The role of the new region has been that of an mediator between conflicting local interests. At least two preconditions for the success in the Hanover region can be observed: *first*, the self-contained political and administrative will to pursue a regional planning concept. *Second*, we find a clear emphasis on dialogue and co-operation at the local level and sensitivity towards municipal planning priorities. However, the legal basis for objecting to local and private planning initiatives has been a necessary condition for the strong regional governance.

So what have been the substantial impacts on integrated land use and transport planning? In the Hanover region, the impact of the regional spatial programme must be regarded as positive. The main principles of a "decentralised concentration" and a "region of short distances" and "priority for development areas with high quality public transport access" have been implemented with

[89] As could also be said for the county model of Funen, see 5.5 above.

broad regional consensus. The regional level has consequently sought to stretch its competencies to secure regional interests in spatial planning – thus *on the one hand* using positive instruments such as the concept of developing central areas and designating priority areas for residential development, and, *on the other hand*, using restrictive instruments such as protecting open landscape and green belts, and by using retail trade plans and inherent development limits to avoid urban sprawl. The case study shows that the planning instruments (development areas, retail trade plan, inherent development limits) are effective, but somewhat ambiguous:

First, the role of the region is basically accepted, as it considers the interests of the municipalities and regulates competition among the municipalities. Attention on regional planning has increased in the municipalities. On the one hand, the municipalities check to see whether the other municipalities are acting within the frames of the regional spatial programme but at the same time they are also committing themselves to the concept. When they want to go beyond the regional spatial plan they then have to propose and defend solutions within the planning principles of the regional spatial programme. The institutional conditions for conflict-solving could thus be said to be adequate, but strong economic interests from a municipality or a private investor could put heavy pressure on the planning system – for example on retail trade location. When the region does allow dispensations, however, this could be problematic as a fragile consensus could easily be dissolved. The region can thus only accept dispensations where the argument for dispensation is clear.

Second, the planning instruments are most efficient in the surrounding municipalities, whereas the regional centre of Hanover regularly seeks exemptions. This special position of Hanover is only accepted when the other players do not perceive that Hanover is taking advantage of this position.

It could be asked whether the formal organisation of the Hanover region matters or not? The empirical evidence of the case study showed that cooperation is characterised by continuity, based on a professional community and personal relationships. Regional planning in the region of the Greater Hanover has, in this sense, not altered significantly through the organisational reform from a local association of counties to the formation of a region body in 2001. In particular, the transformation from a local, special-purpose association to a regional body has not improved the impact of general spatial planning on sector-oriented planning, such as for road transport. Furthermore, the influence of regional planning is based on personal contacts and informal cooperation (Einig et al, 2007:21). For this reason, the regional strength of spatial planning in the Hanover region could be described as “planning diplomacy” with personal networking, the informal distribution of information and development of coordination processes based on trust.

7 Theoretical implications for the literature on governance and regional governance

In general, Norwegian research on spatial and transport planning refers to the national decision-making level and looks at the relationship between local policy formulation, regional coordination and national sector policy (e.g. Langeland, 2002; Moen & Strand, 2000). As described above (section 2.2), we use governance to describe different forms of political coordination (Steuerungsformen) that encompass elements of hierarchy, network and market coordination. The starting point is to look at governance in a regional context in the original sense of coordination forms that improve the implementation of environmental goals (Steuerungsfähigkeit) at the regional level (Mayntz, 1993)[90]. The conditions for different coordination achievements can be found in both institutional arrangements and situational conditions of the policy area. We have thus chosen regional governance as an independent variable, and analysed whether or not strong organisation at the regional level would improve a region's policy coordination results.

The theoretical starting point of this project was to draw on new research approaches to governance that focus upon political decision-making as a network arrangement. This approach is based on research into regional aspects of political governance in multi-level systems (Mayntz, 1993; Kooimann 1994; Rhodes, 1997). Our starting point has been to see if and how regional governance may strengthen coordination in multi-level systems. Kooiman (1994) describes the development of governance as new patterns of interaction between government and society, where network based coordination mechanisms replace a more traditional hierarchical government. These patterns can be observed in a wide variety of policy areas. Kooiman sees this as a second trend in addition to privatisation of public services. Rhodes (1997) describes governance as governing without government. In other words, Kooiman and Rhodes see the traditional government decisions being confronted by inter-organisational networks that are partly autonomous.

Governance is often used to describe a descriptive or normative concept of political coordination that emphasises the withering-away of hierarchical forms of coordination (Rhodes, 1997). Governance is used to designate network governance as a new coordination mechanism (Hansen, 2001, Fimreite & Medalen, 2005). Mayntz describes the development of the notion of "governance" as a result of the discovery of networking as a form of coordination that differs from both hierarchical governance and coordination through the

[90] This can be translated by "*politische Steuerung*"

market (Mayntz, 1993). The networks' players are mutually dependent on each other and represent the public, private and non-governmental organisations. When we look at sector land use and transport planning, new patterns of interaction can be observed but a withering-away of government power is not taking place. In Kristiansand, we find a new pattern of interaction between traditional stakeholders and this model of governance is deliberate. In neither of the regions studied did we observe increased influence of private players. Rather, we observe a drive towards strengthening (Kristiansand region and Hanover region) and keeping (Funen region) a strong regional level in order to frame the lobbying and proposals of private players. In the Hanover region, the strong regional level covering several policy areas, including transport and land use, has resulted from a continuous development, where hierarchy has remained the basis for coordination. In Kristiansand, increased attention to public transport services in the ATP committee could be observed, whereas in Hanover the strong position of transport companies – such as the ÜSTRA – were not altered.

One interpretation of the drive for governing power could be that it is the specific characteristics of the policy sector that influence the role of government players. Thus the local and regional authorities and politicians are gathered in a network resembling a coordination arena. However, this arena is not a network of independent stakeholders where the traditional policy actors seek to maintain power. Moreover, the regional coordination arenas described in this report encompass changing positions of the different administrative levels and authorities. Network governance without government would then be a more likely development when there are no specific policy instruments – such as investment planning and regulations- at stake and the government players are more dependent on persuasive strategies to maintain coordination power.

Of the three observations, the significance of a new network of coordination is most clear in the Kristiansand pilot scheme, where the institutional roles of the participants of the inter-municipality arena were deliberate and well-defined. In the observation of the county of Funen, network-based forms of coordination forms were not dominant. With regard to regional planning the county emphasised the dialogue with the municipalities. The network of municipalities and the county of Funen designated a strong local-regional level of policy making. In the regional reform of 2007 in Denmark, the competencies of the local authorities were strengthened and the role of the larger regions in spatial planning was reduced to a minimum. In the study of the Funen region, we observed that some county representatives saw this as a consequence of the fact that the national level was worried about the strong role of the county level in spatial planning. The reform was not deliberate from the county point of view but changed the role of regional level and thus the arena for network coordination at regional level. In the Hanover region, we observed a region in which the organisational changes, where the Greater Hanover region was established in 2001, did not alter the role of the regional decision level significantly. The changes in coordination mechanisms thus resulted in a change of planning style within the region, from a regulative regime towards a procedural cooperative planning regime. However, the hierarchical basis for the regional governance was not at stake as the regional public administrators have been willing actively to use the coordination instruments at hand. Hence, the network elements in the Hanover region were funded on the professional bias and understanding of the persons in charge of

regional planning, who advocated a cooperative planning regime. Thus, the municipalities were included in developing and implementing regional land use planning in a network-like manner. From a institutional point of view, the strong position of the regional administration is the main characteristic of the Hanover region: network-based coordination mechanisms did not play a significant role in the formal organisation.

Network-based decision-making tends to have its own logic and is in need of its own mechanism of political control. as it is self governed and political coordination is achieved through creating a common set of values (Fimreite. Medalen & Aars, 2005:17). Political coordination in network-based multi-level systems is achieved through different coordination mechanisms such as bargaining, consensus-finding and deliberation (Scharpf, 2000). Some studies have emphasised that in networks cooperation is to a large extent based on trust and common procedures (e.g. Hansen, 2006). Other studies have emphasised that coordination in networks is not wholly derived from the political system: political coordination often takes place in the shadow of hierarchy (Scharpf, 1994).

The Kristiansand case study could easily be analysed in accordance with these findings. Trust and common procedures were of particular importance due to the institutional design of the pilot scheme, being a non-permanent inter-municipal agreement. The participants agreed on the cooperation up front, and they knew that they could opt out of the cooperation in time. In the Funen and Hanover case studies, we would not expect trust to be a central issue for governance as the regional governance was a continuous institutional arrangement without any opt-out options. However, the studies clearly revealed that trust and legitimate procedures were an issue for regional governance in the more hierarchical coordination systems as well. The reason for this may be found in the structure of the policy area. There are no clear private economic benefits in reducing car transport, so that measures tend to counteract urban dispersion.[91] The municipality would not see direct advantages in controlling the development of locations that increase car transport, if increased car transport is the citizens' preference. This may be so because the negative impacts of urban sprawl would primarily be perceived at the regional level, and not so much at the local level. In order to ensure both cooperation in the development of the land use policy and the implementation of the national and regional planning goals, it would be necessary for the players to have perceived common interests. If not, the local policy would easily hamper national and regional strategies to integrate land use and transport policy. This leads us to a two-fold conclusion: either the municipalities have to be actively included in the regional planning, or the coordination must be strongly hierarchical, in order to ensure that local implementation is in accordance with the national and regional requirements.

The role of the regional level as mediator between national planning requirements and the municipalities as in the Funen region, or between the municipalities as in the Hanover case is described by us as a strategy to create trust. The regional level thus aims at creating common professional views at the local level and balancing

[91] Recently climate gas emissions and pollution from transport have been discussed as a problem related to the notion "Tradegy of the commons" (Lundqvist & Biel 2007, Leiren, 2008).

the interests of the municipalities and the private stakeholders through an inclusive policy style.

When we describe regional governance, we draw attention to the role of the region for the coordination of stakeholders. This coordination covers several policy areas and administrative levels. When we analyse land use and transport planning at the regional level, the overall output results from the impact of socio-economic and policy strategies that cover several separated regulation regimes, investment strategies and policy instruments of the different sectors involved. Thus the replacement of government by network governance does not give an appropriate description of reality. Regional governance, according to our findings, cannot be described as establishing a new network of coordination. Rather the participants at the regional level try to maintain their institutional standing by altering the institutional context by changing an already existing network, or even by increasing the government element in the coordination mix. Such improvements to the institutional capacity of influencing the policy agenda setting and policy implementation would be important, as priorities and preferences are influenced both by the affiliation of an institution and the individual's professional role (Borgstede and Lundqvist, 2006). In this sense, strengthening the regional level in regard to land use and transport policy could simply be seen as an effort to increase political power over the players in other sectors and at the national and local level. Hull (2008) has recently shown that the norms of the local public administrators may be counteracted by a rigid central government and insufficient policy instruments. In this sense, strengthening the regional level could be seen as a means of creating a common policy in the areas covered by the regional governance model. Regional governance improves output by mediating and hindering a lack of consistency between local and national preferences.

We have argued above that the hierarchical element of coordination is not withering away. New governance patterns may be seen as an effort to strengthen influence in regard to goal achievement that could be coupled with policy preferences, institutional norms and traditions. Bearing this in mind, why would the state level want to strengthen a regional level? For example, why would the Norwegian government initiate the ATP pilot in Kristiansand? The reason why the state level may want to delegate authorities to its member bodies can be found in the observation that the state wants to minimise implementation weaknesses resulting from multi-level fragmentation.

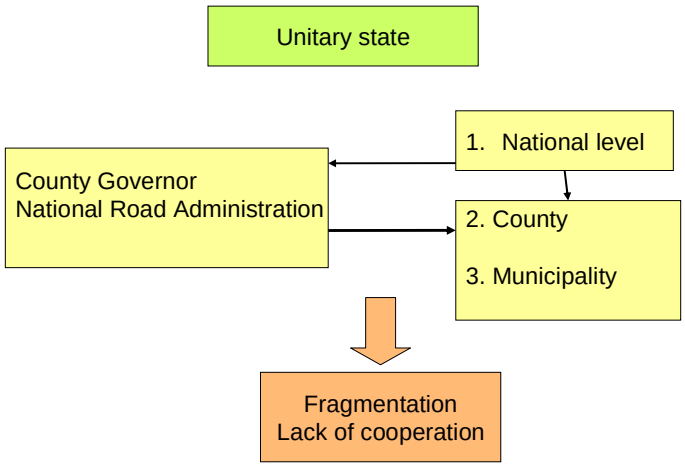
The political scientist Fritz Scharpf describes the interdependence between vertical and horizontal policies triggered by hierarchical coordination in federal decision systems.[92] He points out that policy decision authority is not clearly apportioned between the Bund and the Länder as member states (Scharpf, 1976 d;Scharpf, 2005). Rather, the policy decisions of the independent entities depend on the each other, giving the Bund as well as the Bundesländer or local levels veto points and independent institutional interests, that may hamper policy

[92] Thus if we define governance narrowly as network governance – *i.e* as a new and separate coordination form, we will fail when we analyse the interdependence between vertical and horizontal policies triggered by hierarchical coordination.

implementation. Scharpf calls this the "joint decision trap".[93] It means that too many entities seeking to enlarge their influence, have to cooperate. This can be problematic when they do not agree and a decision cannot be made.

In contrast, we have described the traditional Norwegian planning and transport model (see chapter 3). It could be viewed as a *dispersed decision trap*. It has a decentralised structure which results in lack of cooperation among different entities and levels. The state, counties and municipalities fail to implement a common policy of integrated land use and transport planning. Research argues that fragmentation is the reason for this, and that fragmentation counteracts national goal achievement. In other words, necessary achievements are not reached because decision processes in transport policy and land use planning are independent of each other.

Figure 6.1: The traditional Norwegian model



Arthur Benz and Dieter Fürst (Benz, 2003) are of the opinion that regional governance may help in overcoming *joint decision traps* in federal systems. For area land use and transport, however, we do not see that this joint decision trap is relevant for the German case of the Hanover region. The reason is that there are no crucial decisions on the policy areas that are taken jointly by the Bund and Länder.

When we give their theoretical approach a "twist," we could ask whether regional governance may contribute to avoiding *dispersed decision traps* in unitary, decentralised policies such as in the Norwegian model. In federal and unitary states, regional governance may consequently be described as a concept for altering the competencies of the regional level in order to enhance coordination between the local, regional and state levels (Benz, 2003). At the same time, it supports national goal achievement by adding to cooperation across municipality

[93] In German: "Politikverflechtungsfalle"

and county borders. This may be described as a way out of a decision trap of fragmented multi-level decision systems.

In the ATP programme, there is evidence for the thesis of avoiding a dispersed decision trap. First, the national state initiated and supported the administrative pilot scheme and created incentives through the Public Reward Fund. Second, the purpose of the national initiatives was to improve the implementation of national planning goals at regional and local level. When we use the goals of integrated land use and transport planning as a benchmark, there is also evidence that the dispersed decision trap is hard to overcome. First, in the ATP pilot, the competencies connected with land use are still in the hands of the municipalities. Second, the municipalities have up to now been reluctant to adopt restrictive measures. A more substantial decision trap is the one of road investment planning, which is still in the hands of the national authority. Road investment funding still gives the municipality a strong incentive to increase road capacity. Stronger regional governance could be necessary to avoid the decision trap.

The former county of Funen has a strong regional level. Decisions appear to be more integrated than in the Kristiansand region, and as in Hanover, the county of Funen acted as a mediator in the multi-level governance arrangement. Also in federal states such as Germany regional governance may contribute to avoiding a dispersed decision trap, when the decision of the municipalities, regional association or regional political administrative level and the Länder decisions are in conflict. In the Hanover region, regional governance could have contributed to reducing the dispersed decision trap. First, through the development of a communicative policy toward the municipalities and the status as a "planning diplomacy" (Zibell, Loeb & Fürst, 2008) the region has established itself as a legitimate stakeholder. Second, it has the hierarchical powers to object to projects that are in strong conflict with the regional planning requirements.

In this report, we have analysed the role of the regions in land use and transport planning. From a normative point of view, strengthened regional levels aim at increasing the efficiency of public governance in the spatial planning and transport policy. Regional governance will thus enable the setting of rules on how the interaction of the different stakeholders is to take place, and facilitate gathering different and segmented decision arenas and levels (Benz 2001). Benz (2004) sees regional governance as an integrated part of its institutional context by means of its organisational structure. Different levels and models for regional coordination will again give the stakeholders different opportunities for influencing the decision process (Adamschek & Pröhl, 2003).

8 Conclusion: regional governance matters

The main hypothesis for this research project is that *strengthened regional governance contributes to reducing the gap between intentions and actual results of a policy that prescribes integrated planning and development of land use and transport.* The case studies showed that the organisation and design of regional governance do influence the role and the arenas of the municipalities and regional authorities. The dialogue between the municipalities was strong in the Kristiansand region, mainly due to the common arena in the ATP committee.[94] In the cases of the Funen region and the Hanover region, professional networks may improve the dialogue across the municipalities' borders. In both cases, the cross-border coordination is directed towards the county or the region. In the Funen region, for example, the county had bilateral dialogue and meetings with all municipalities when the regional plan was being prepared. In other cases, the county acted as a mediator between local interests and professional or national planning guidelines and requirements. In Hanover, for example, the dialogue on the. location of retail trade centres and residential areas was largely bilateral. With regard to the location of large retail centres or surface areas, the municipalities initiated a regional discourse by objecting to the plans of other municipalities. In these cases, the region actively acted as mediator between conflicting municipalities.

As already mentioned, strengthening the regional level in the Kristiansand region may support national goal achievement by increasing cooperation across municipalities and sectors. However, what do we expect regional governance, such as the institutional changes in the Kristiansand region's pilot scheme, to contribute to? Has the gap between the intentions and results of integrated land use and transport policy been reduced, and can the role of regional governance be ascertained?

All models of regional governance in the cases studied performed well as regional coordination schemes, due to both the institutional design, and to the quality of the dialogue between the stakeholders involved. There has been little evidence that the local level, represented through the municipalities, looses influence with a strong regional level. Hence, regional governance can primarily be seen as a necessary intermediary level between the national administrative and policy level (goals, instruments and planning requirements) and local planning interests. When we presuppose an urgent necessity to implementing sustainable land use and transport planning, we simply need regional governance to secure

[94] Fimreite and Aars see the ATP programme as a traditional network of administrative bodies that results in an indirect democracy. They conclude that this reduced the policy decision-making power of the municipalities to a de-politicised arena. The regional decision level does not include policy opponents (Fimreite & Aars, 2005).

policy commitment and professional engineering at an administrative level. This is required for implementing national goals for integrated land use and transport planning in the municipalities.

Thus, the report shows that enforced regional governance could be described as a necessary, but not sufficient condition for closing the gap between national policy goals and local implementation of integrated land use and transport policy (such as urban concentration versus urban sprawl, reduced car use and improved public transport). Regional governance schemes face several challenges in achieving more sustainable land use and transport planning. *First*, the regional level is dependent on sufficient demand and support from the national policy level, and on consistent policy instruments. Both in Funen and Kristiansand, ambiguous goals and incentives appeared to influence the ability to follow the substantial goals of integrated planning. *Second*, historical patterns of settlement may constrain the possible choices at hand, as in the Funen region. *Third*, the path dependency of institutions at both local and regional levels may hamper changes in planning, as in Kristiansand and Funen. *Fourth*, the range of competencies at regional level may be too limited to "make a difference."

The regional level appears to be a reasonable institutional level of organising land use and transport planning. However, improved institutional conditions by strengthening the regional level could be characterised as an intermediary rather than an explanatory variable.

8.1 Summarised findings from the three observations

The functional model as applied in the **Kristiansand region** is based on a consensus-orientated pilot scheme for regional coordination that is limited to the two areas of transport planning and spatial development. The programme is organised as two projects, the transport project and the land use project, directed by one political committee. The ATP committee is not a legal entity, but is based on a contract. The committee manages the programme and decides on budget priorities. The politicians represented in the ATP committee make decisions on integrated land use and transport policy. The politicians represent their municipalities and counties. A coordinator of the National Road Administration Region South contributes as an observer and advises the decision-makers.

In the *transport project*, which was initiated by the Ministry of Transport and Communications, the two counties and the six municipalities have centralised their responsibilities and resources for investment and maintenance for county and municipal roads, and pedestrian and bicycle lanes along such roads, in a common ATP pool. One year after the transport project was established, the *land use project* was introduced in order to create a common land use plan. The purpose of the land use project is to introduce guidelines which integrate the goals expressed in national guidelines, and bind its member units to a sustainable development of land use.

The role of the ATP programme in the Norwegian planning system could be characterised as a pilot scheme for a strengthened regional level. It is strengthened in the sense that it achieved increased responsibility for a specific policy (sub-) area, and through deliberate coordination between the municipalities and the

regional stakeholders. This coordination was partly initiated through the Ministry of Transport (ATP transport project) and the regional body Junction South (ATP land use project). Through binding budgetary decisions in the transport project and a common drive towards regionally-coordinated land use planning, the regional level, represented by the ATP committee, has strengthened its position in the multi-level administrative system. The findings show that the regional governance model has been well accepted and functioned well in the trial period, and that both the competencies and patterns of interaction have been changed. Hence, the Kristiansand pilot scheme appears to be an appropriate way of organising the two areas of land use and transport planning.

In the case study of the Kristiansand region, however, the land use planning is not yet as strongly integrated as is the case for the transport project. The regional governance model has until now contributed to a discourse on restrictive measures and regulations, but the local responsibilities of location issues are still in the hands of the municipalities. However, with the extension of the Soerlandsparken shopping centre, the ATP committee and project administration played a role as an arena for mediating the discussion between Lillesand and Kristiansand that included two counties. For road planning issues, the ATP committee has extended its competencies to encompass administrative responsibility for the proposals for the Transport Package for the Kristiansand region.

Although ATP does not alter formal land use decision authority, it may diminish the likelihood of objections among the participants. This deliberate cooperation takes into account local policy preferences, as the process is based on consensus. The ATP programme has also enabled a new arena for discussion for the municipalities, and regional stakeholders' perceptions of conflict issues - such as restrictive measures for car transport - may gradually change.

As a second observation we have chosen the **county of Funen** in Denmark**,** in order to analyse the former county model as a regional governance alternative. The role of the former county in the Danish planning system could be described as an optimal model for a strong regional level. Through binding land use plans, clear definitions of development zones combined with national requirements and guidelines, the region had a strong position in the multi-level administrative system. It is based on the standard hierarchical governance and planning model that allocated high competencies for transport planning and spatial development to the county level.

The policy instruments for influencing integrated land use and transport planning were largely in the hands of the county of Funen. In particular, the regional plans and the road investments plan give the regional level a formal instrument. The regional public transport service was also planned and administrated by the county, *e.g.* through administrative responsibility for the regional bus operator. The regional planning institute prescribed the major conditions for spatial development in the region and the land use decisions in the plan were binding for the municipalities. The Road Administration for the county of Funen County was responsible for road planning on the basis of a regional road infrastructure plan. The county was responsible for investments on all roads, but not for the two national trunk roads/motorways that cross the island of Funen. The county level was also in charge of public transport. The vertical division of competencies in the former Danish system gives strong competencies to the county level for

transport planning and public transport, especially in regard to national planning guidelines, but also in regard to the municipal level.

Below we will summarise the findings on some key issues that are important elements of integrated land use and transport planning that aims at reducing road transport. The case study of Funen shows that spatial planning and transport planning was highly-integrated in the former administrative system and the strong regional governance contributed to the procedural integration. However, the county plan was ambiguous as to whether the planning was in accordance with the substantial national and regional goals for sustainable development. *On the one hand,* the plan did not strive to concentrate the number of urban growth zones and to limit growth in transport demand. Land use and transport planning were not integrated in order to contribute to reduce greenhouse gas emissions.[95] *On the other hand,* the county appeared to influence the principle that new residential areas were to be limited to existing urban zones.

It seems that the regional governance model did not have a strong impact on the implementation of integrated land use and transport planning. Land use and settlement structure did not contribute to reducing demand for transport by countering the spread in urban areas and thus facilitating sustainable modes of transport and efficient transport services. This was, however, due to an "unspoken" multi-level consensus on road investment policy and to the wish for maintaining and further developing the historical pattern of numerous urban zones of the villages. Thus, the regional plan contained both the goal of maintaining and further developing the main road network, and reducing the growth in transport demand through spatial planning.

This does not mean, however, that the county model did not contribute to disconnected land use and transport planning. *First*, the Road Administration avoided disintegrated development in the decentralised urban zone structure. It could use its intermediary position in order to safeguard national planning requirements and be a dialogue partner with the municipalities. The development of the regional plan of 2005 was based on dialogue, and was an instrument for including both national and regional considerations. *Second*, the use of the broad planning competencies for fulfilling both national and regional goals, such as nature and coastal protection and traffic safety, infrastructure cost of traffic access to main road network did influence location. Thus residential and commercial locations were influenced by instruments at a regional level that served national and regional goals other than those of integrated land use and transport planning.

The regional model applied in the **Greater Hanover region**, Germany, was introduced in 2001. It is a strongly formalised, regional, political-administrative system for a larger urban area. It covers a wider set of policy areas, among them transport planning and spatial development. The regional model follows an already strong regional coordination through the Local Association, covering Hanover and the surrounding counties (*Landkreise*). The coordination in the Hanover region ensures continuity to a greater extent than in the Norwegian and the Danish case studies.

[95] As stated in the regional planning programme (Statens udmelding til Regionplanvision 2005)

In the political-administrative system of the Greater Region of Hanover, the regional level has distinct powers at both the administrative and political level. The Hanover region is - as are the counties in Niedersachsen- a local territorial government. The Hanover regional model is also unique in Germany. Its powers embrace both land use and transport planning, including prioritising investments for public transport and roads. The formalised division of powers between the municipal and regional levels is enforced through mirroring the municipal bodies and administrative structure that allows the evaluation of the success or failure of implementation.

The region manages and controls the political process of spatial development and transport planning. The regional public transport has been re-regulated by introducing comprehensive agreements and by separating the public transport undertaking of the City of Hanover into operators and infrastructure managers. The regional level is in charge of public transport purchasing. The municipalities are in charge of making local transport plans.

In the Hanover region there has been a continuous, historical emphasis on a regional planning concept that integrates land use and transport planning, firstly, through the Local Association of Greater Hanover and secondly, with the foundation of the Hanover region in 2001. Countering the tendencies of urban sprawl and increased motorised transport has thus been in accordance with regional policy goals for land use and transport planning. Key issues that have been addressed in the region have been related to the implementation of:

- the effects of decisions and guiding principles in the regional plan for coordination of residential development in the regional planning
- implementation and the regional retail trade plan and its effects on the location of large area shopping malls
- the coordination of residential development in rural areas to prevent urban sprawl through the regulation of preparatory land use plans at municipal level

The regional plan is the main instrument for influencing spatial development at the regional level. The regional model of Greater Hanover, combined with the planning requirements of the Land Niedersachsen, and the formal powers to designate development areas may be seen as a well-functioning model of spatial planning at regional level.[96] There has been strong professional and policy consensus at regional level on the principle of integrated land use and transport planning that has resulted in a clear regional planning concept (decentralised concentration) that has been pursued consistently. The role of the new region has been that of a mediator between conflicting local interests. We observed at least three preconditions for the success in the Hanover region: first, the self-contained political and administrative will of pursuing a regional planning concept. Second, there was a clear emphasis on dialogue and co-operation with the local level and third, the region was sensitive towards municipality planning priorities.

In the Hanover region, the impacts of the regional plan must be regarded as positive. The main principles of a "decentralised concentration," a "region of

[96] As could be also said for the county model of Funen, see 5.5 above.

short distances," and "priority for development areas with high quality public transport access" have been implemented with broad regional consensus. The regional level has sought to stretch its powers to secure regional interests in land use planning. It has used a positive instrument such as the concept of developing central areas and designating priority areas for residential development. It has also used restrictive planning instruments such as protecting open landscape and greenbelt areas, and it has used retail trade plans and proprietary development limits to counter urban sprawl. The case study shows that the planning instruments (development areas, retail trade plan, proprietary development limits) are most efficient in the surrounding municipalities, whereas the regional centre of Hanover regularly seeks exemptions. This special position of Hanover, however, is only accepted regionally, when the other players do not perceive that Hanover is taking advantage of this position.

8.2 Institutional conditions for integrating land use and transport policy

The findings in this report show differences in the institutional conditions in the three observations in regard to:

- the role of the regional level in the political administrative system
- division of competencies between administrative levels
- policy instruments available at regional level
- division of competencies between sectors

8.2.1 The role of the regional level in the political administrative system

The role of the regional level in the pilot in the Kristiansand region was first of all to create a new arena that brought together the formal regional stakeholders. In the standard Norwegian arena of land use and transport planning at regional level there are several stakeholders; the counties; the regional Road Administration and the national state through national guidelines and the County governor, and also the municipalities as autonomous planning entities. With the new arena, several of these regional stakeholders were included in the cooperation scheme with the participating municipalities, whereas the County governor was partly included in the project. The strengthening of the regional level in the Kristiansand region could be described ambiguously. *On the one hand*, the ATP programme brought together the different stakeholders for specific purposes related to land use planning, public transport and road investments. *On the other hand*, the regional level was not strengthened in regard to the centralised state authorities. Rather, the pilot scheme altered the competencies within the region, not by delegating more competencies from the central national level to the regional level.

In the former Danish planning model, the regional level was represented by the county which played a crucial role in both regional planning and transport infrastructure planning because the road administration was part of the county. This integrated responsibility increases the possibility that policy achievements of

integration of land use and transport planning are "regional" political rather than "local" will. The regional representatives interviewed in this project confirmed the strong role of the regional level. The county was able to carry out coherent planning for the region across the resources and thematic issues. In the county model of Funen, however, the local level participation should be regarded as important. The main role of the county expressed by interviewed stakeholders was that of an intermediary level between local interests and national planning requirements. The county worked in two directions: *first*, it gave professional advice through the regional plan for land use proposals, and in this sense it "argued on behalf of the municipalities." *Second*, it was in charge of the local implementation of the national planning directives and guidelines for the municipalities.

The Hanover region, moreover, has an autonomous administration and policy representation. Changes after the creation of the region in 2001 are mainly due to the strength of a large professional administration for both the municipalities and the Land. The explanation for this is that the old coordination system of the Local Association of Greater Hanover exhibited the same coordination advantages as the new Greater Hanover region. *First*, there was only one institution in charge of infrastructure planning and operation of public transport. *Second*, transparency and high professionalism in the transport planning and *third*, the coordination of public transport tendering have not been altered. The Local Association used to set the premises for the private transport services and now the region is responsible for this.

8.2.2 Division of roles between administrative levels

In the Kristiansand region, the new division of roles, as set out in the mandate for the ATP programme, seems to favour the municipality level as long as a regional plan is not decided upon. The role of the participating counties is ambiguous. On one hand, the counties participate in deciding upon the content of the regional land use plan, thereby influencing and consenting to the content of a common plan. However, in the conventional Norwegian model, the counties have the opportunity to object to local plans that are not in accordance with the regional plan. This power of veto remains, although the counties participate in a common land use project. The liberal development frameworks for the new location of IKEA, Bauhaus and Smart Club in the shopping centre of Soerlandsparken, may be seen as an example where the county its lost influence.

In the stronger formalised regional governance models, such as in Funen, we assumed that the local levels would be less involved in land use and transport planning at the regional level. This may result in more conflicts between the local and regional levels. However, we found the following: *first*, the regional administrative level did not make any proposals directed at concentrating development in fewer urban growth zones, as the Ministry of Environment strongly recommended. *Second*, regional planning in Funen was explicitly deemed to be successful as result of the close collaboration and inclusion of the municipalities in the planning process. In the Funen region, the regional plans were binding for the municipalities, but the municipalities' interests were considered in the making of the plans, so that the process may be described as a regionally-mediated consensus in the shadow of a hierarchy and where the

cooperation was implemented bilaterally as a dialogue between each municipality and the county.

In the stronger formalised regional governance models of the Hanover region, we assumed that the local levels would be less involved in land use and transport planning at the regional level because the region sets the conditions for local planning. The cases analysed in this study show that there have been conflicts of interests, but the regional level serves as an efficient administrative level for finding solutions and compromises. The municipalities questioned in this study broadly support the role of the region and appreciate its role as mediator between conflicting interests of the municipalities and competing development centres in the region. One reason for the low level of conflict could be seen in the overall legitimacy of the regional level in Hanover. The Hanover region seems to be successful in setting substantial requirements for the municipalities that aim at concentrating development locations according to the region's planning principles.

8.2.3 Policy instruments available at the regional level

One of the advantages of a strong regional level is the inclusion of more policy instruments, and combining an active land use policy with decision-making competencies on road investments and restrictive measures in order to reduce congestion and automobile usage. According to our assumption, this could contribute significantly to increasing the importance of the regional level in all case studies.

The ATP programme has strengthened the regional level. *First*, the transport project includes decisions on investment and maintenance priorities on municipal and county roads. *Second*, the ATP committee prioritised how to spend the Public Reward Fund. The land use project, on the other hand, aims at influencing the municipalities' land use policy, but has no authority of interfering witht the municipalities' preparatory and binding land use plans.

Also, in Funen, the use of local restrictive measures such as parking policies is largely in the hands of the municipality. The policy instrument available at the regional level is thus connected with land use planning, road investment priorities and public transport at the regional level, where all these competencies were contained within the county administration (road investment priorities, designation of development areas within the regional plan and regional public transport (bus)).

The usual broad palette of instruments in the Hanover region seems to be linked primarily with planning authority. The region approves both preparatory and binding land use plans. Furthermore, it has developed the instrument of proprietary development limits. The region has also continued the policy of designating development areas in order to actively pursue the goal of decentralised concentration in the regional plan. The Hanover region uses both positive and restrictive instruments for location; it actively coordinates the location of residential and commercial through the designation of development

areas.[97], and it may limit urban sprawl by proprietary development limits in rural areas and through building restrictions for open landscape and greenbelt areas. Hence, it seems that the regional model of the Hanover region possesses the policy instruments needed in order to integrate land use and transport planning. However, some shortcomings may hamper the implementation, i.e. important investors have strong bargaining powers. They may encourage municipalities and the region to make concessions that are not in accordance with the goal of a more environmentally-friendly policy.[98] The realisation of development areas may also be dependent on other authorities and stakeholders such as the National Road Administration and energy supply companies.

8.2.4 Division of roles between sectors

We assumed that institutional integration of competencies of public transport, road planning and regional planning as units in regional administration would facilitate integrated land use and transport planning at the regional level.

The study of the Kristiansand region showed that the inter municipality cooperation on land use and transport planning improved the institutional conditions for integrating land use and transport policies. Before the ATP project started, contact among the various units – the Road Administration, the counties and the municipalities – mainly took place in bilateral meetings. In the pilot scheme, contact among the participants primarily takes place in ATP meetings. The ATP programme in Kristiansand was a relatively small organisation with a project secretariat, where both the transport project and the land use project were located within the administrative staff of Kristiansand. This has enhanced a common understanding.

In Funen, we expected that the strong administrative capacity and the functional integration of both spatial and transport policies at regional level would contribute to an integrated land use and transport policy. The interviews clearly supported this assumption. However, here we also found that the functional tasks and institutional goals of the respective administrative units were retained. The professionals we interviewed clearly saw the regional cooperation from their own professional viewpoints. Thus, the case study of Funen also could be interpreted as conservative in the sense that the planning tradition and priorities of the stakeholders remain stable.

In the Hanover region, we expected a strong administrative capacity and functional coordination of both spatial and transport policies at regional level. A large administration covering a broad range of sectors, as in the Hanover region, could have its limitations, as procedures are more formalised and the institutional barriers between the regional and the municipal level seem to be higher, at least psychologically (Zibell, Loeb & Fürst, 2008). This lack of integration did not apply to the sector division between public transport and regional spatial planning: the institutional conditions for integration have been highly favourable.

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[97] Defined as: *Zentrale-Orte-Konzept*, *Voranggebiete für Siedlungsenwicklung*, *Eignungsgebiete-Ansatz*

[98] That are defined as large enterprises such as ALDI and IKEA.

Since 1969, the region has been in charge of public transport. Public transport and spatial planning are coordinated, e.g. through coordination talks and round-table talks with the administrative heads and the relevant professionals. In the Hanover region, we observed a well-functioning integration of public transport and land use planning. This integration was, however, not confirmed for road transport planning. The division was not due to divided sectors within the region, but can be explained by the lack of regional competencies for road transport planning.

8.2.5 Do national goal conflicts still hamper integration?

One crucial question should be mentioned when looking at the goal achievement of the Kristiansand pilot scheme. What competencies that may be crucial for integrated land use and transport policy are not included in the project?

Lennart J. Lundquist (2001) argues that hierarchical coordination may be used in order to strengthen local implementation of national policy targets.[99] The ATP project may be partly described as a multi-level governance win-win situation, in which increased local activity is combined with increased regional coordination, and a state level that actively uses policy instruments such as the Public Reward Fund, in order to achieve desired policy goals.

However, the road investment plan for national trunk roads is not integrated in the transport project. Two large investments plans in the region have recently been part of the implementation of the national transport plan. These projects have or will increase the road capacity in the region and the investments frameworks are far more significant than the transport project funding. The competencies of the transport project may be regarded as "peanuts" (Interview, May 2007).

There have been some major conflicts regarding the national goals for integrated land use and transport planning and the priorities in the national road investment planning, increasing road capacity. The Kristiansand pilot, however, does not seem to have created any discussion or conflicts on such matters. This is surprising, as road toll revenues make road investments possible. Thus, the plans are indirectly integrated in regional policies. For this reason the regional governance model seem to be more effective for integrating policy *processes* than policy *areas* of an integrated and sustainable land use and transport policy.

In Funen, there has been a similar consensus of the necessity of increased road investments. There has been multi-level consensus on the necessity of improving road traffic flow through road investments. In regard to land use, the national policy has not hampered integration. The county often acted as a mediator between national requirements and environmental goals. However, these goals were largely connected with nature and coastal area protection, and not directly linked with planning requirements of integrated land use and transport planning. Moreover, the goals at both national and regional level seem to be ambiguous in this regard.

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[99] Lundquist (2001) has pointed out that the relationship between the state and local level may be characterised as a positive paradox. A strong national state, as in Sweden, may be combined with clearly-defined and independent areas of powers at regional and local levels.

In the Hanover region, the regional level was strong in regard to land use priorities, as the guidelines of a concentrated decentralisation and urban development along the railway lines has been integrated with public transport since the mid 1960s. No direct conflicts with the Land of Niedersachsen and Bund were observed in the case study.

8.3 How does regional governance influence policy change?

Initially we indicated several reasons for choosing the hypothesis of a strong regional level as a prerequisite for integrated land use and transport planning.

First, regional coordination across municipal borders and sectors facilitates integration and counteracts fragmented policy decisions of land use and transport. In Kristiansand, this integration was due to a deliberate coordination of land use and transport planning in a common ATP programme. This has provided a common arena for both land use and transport policy that has resulted in trust between the municipalities and between the administrative levels. However, due to the short duration of the cooperation and because the land use project has not yet made a regional plan, the conclusion on the ATP programme's effect still remains open.

In the more established regional governance models of the former Funen county and Hanover region, we found that the regional level had a strong formal position in defining the spatial development in their area. In Hanover, the region is in the position of objecting to local proposals in dispersed areas, and has proved that it is able to do so. Through proprietary development limits, the region also sets the framework for residential locations outside the development areas. Last but not least, the region approves both preparatory and binding land use plans. The county of Funen County, however, scarcely limits the residential development of urban zones in the municipalities in the regional plan at all.

Second, setting up a new regional network of governance may alter the position of the different stakeholders and authorities. This was clearly the case in Kristiansand, where the municipalities did increase their influence of budget priorities through the transport project, and at the same time did not "lose" their veto rights on land use priorities In the Hanover region, regional cooperation has had a long tradition. The establishing of a regional level in 2001 could be seen as a continuous development towards a strong regional level. However, compared with the former regional governance through the Local Associations of the Greater Hanover, the Hanover region has extended powers with regard to the Road Administration, and the contact between road and public transport planners is closer than it used to be. The new administration is regarded as having more influence on Land Niedersachsen and the stronger organisation of the Hanover region lends a higher authority to the regional level.

Third, regional governance structures will extend the responsibilities for the available instruments. In the cases studied, the region uses important instruments such as planning, regulation through objection and planning requirements, and makes important investment decisions. However, the use of restrictive instruments such as road pricing and investment priorities on trunk roads and the use of road

pricing, has either remained in the hands of the municipality or at state level. The Kristiansand region is an exception with regard to road funding, as the municipalities influence on the financing of road investment through road tolls. This is not the case in Germany and Denmark, where national funding dominates important road infrastructure projects. In all the case study regions, restrictive measures such as parking policy are a matter for the municipalities. This shows that regional governance may be seen as a variation of multi-level governance where the different levels are dependent on each other in order to achieve their goals. To be able to implement integrated land use and transport planning, all systems need multi-level coordination. On the one hand, national planning requirements and national incentives such as the Public Reward Fund in Norway may influence local and regional policy development. On the other hand, the municipalities may influence the implementation of regional goals positively or negatively by their use of local instruments.

Fourth, regional governance may counteract the disintegration of land use and transport planning as segmented political cycles with different arenas that are only loosely connected. All the regional governance cases clearly contributed to an organisational integration of land use and transport planning. In the Kristiansand region this was achieved by the ATP committee as a common political steering group that covered both land use and transport, and the close professional cooperation of the project secretariats for the transport and the land use project. In Funen, the integration was even closer due to the location of the public transport section in the county road administration. The study of the Hanover region (Zibell, Loeb & Fürst (2008) concluded that a regional political level with a strong professional administration has improved already close integration between public transport and land use planning.

The three models of regional governance have different institutional challenges. The challenges may partly be explained as consequences of the organisational framework as well as the relationship between the stakeholders pursuing different institutional tasks and interests. In Kristiansand, the transport project began earlier than the land use project. This may have been necessary in order to motivate and create trust among the participants before the greater challenge with a common regional land use plan could begin. It has been a challenge for the ATP programme to integrate large location projects, such as the retail trade centre *Soerlandsparken,* and dispersed residential areas such as Aalefjaer in Kristiansand into the regional planning arena. In the county of Funen and the Hanover region all location proposals were integrated and discussed within the framework of a regional land use plan.

In both the Funen and the Kristiansand regions, the national road investment policy has a crucial influence on goal achievement with regard to the growth in road transport (Lindseth & Fimreite, 2006). The road investment plans for the E18 in Kristiansand were decided upon before the ATP programme began, and the E39 national trunk road was not included in the programme. Within the transport project, road investments were not prioritised. In Funen, the county both supported and prioritised the main highway from east to west (the E10). It also prioritised the construction of the highway from Odense to Svendborg (national road no. 9). Odense and the county also strongly supported the ring roads in Odense and the Odense Channel. In the Hanover region, land use and road

planning were the least integrated. The regional general planning is generally weak compared to national road planning, which is sector planning. Through spatial and environmental assessments, the region may nonetheless influence the alignment of the roads. This disintegration is mainly due to the road investment policy being decided upon at national level, whereas the regional level has to achieve influence in a multi-level governance arrangement.

Fifth, our analysis has shown that the regional governance sets out the framework for coalitions covering the political area of land use and transport policy. Different models for regional governance will "respond" differently to external events (see 7.2.4 above). The advocacy coalition thesis also acknowledges that political changes are largely a result of external events, such as socio-economic and technological changes or changes of majority through political elections. Interaction, discourse or rhetorical arguing between different coalitions may, however, lead to partial changes in orientation in the institutions (Sabatier/Jenkins-Smith 1993, Leite 2004). There was some evidence of this in the Kristiansand region, where for example the discussion on restrictive measures and location has changed somewhat throughout the project period. Bratzel states that only external and enduring forces from outside the political system could lead to a shift towards a more sustainable urban transport policy (Bratzel 1999:177). This conclusion seems to be partially supported by our findings. In the regions of Kristiansand and Hanover there were no such external events that could be observed within the last five years. However,. there has been a small shift toward changes in orientation and the willingness to introduce new policy instruments (as in Hanover) and institutional changes (such as the participation of the Kristiansand municipality in the new regional bus company).

In the Kristiansand region, the ATP programme had a joint arena for municipality participation that was dependent on trust among its participants, as it had to seek decisions based on consensus. In Kristiansand, players from the municipalities, counties, state authorities and public transport companies constituted this arena. In Kristiansand there were no obvious changes in external occurrences such as elections or changes in funding schemes within the time schedule of the ATP programme that altered the viewpoints (Sabatier & Jenkins-Smith, 1993). The Public Reward Fund, however, could be interpreted as a necessary external condition for local participation in the transport project. On the other hand, the enforcement power of the municipalities clearly altered some of the priorities such as for the road administration, that had a stronger focus on traffic safety. Also, in Funen the decision on the reforms changed the motivation for the county and municipality. They were aware of the fact that the Regional Plan of 2005 would be the last plan which would be decided on by the county, as a new reform altered the powers in 2008. This may have contributed to a lower willingness to raise conflict issues, such as the Ministry of Environment's criticism of the expansive urban development zones in previous regional plans. In the Hanover region, there were no short term external events, such as a change of government or economic pressures that could be said to explain political changes, but rather a steady professional tradition of following common principles for spatial development.

Moreover, strong powers in the hands of the region in Funen and Hanover have been a prerequisite for including regional and national goals of integrated land use and transport planning. Thus, a preliminary interpretation would be that inter-

municipality co-operation such as in Kristiansand also needs a strong regional authority level (the county) acting as an intermediate agent.

8.4 Final conclusion: environmental governance through regional coordination mechanisms

Strengthened regional governance has been put forward as a strategy for improving the integration between land use and transport planning (Benz & Fürst, 2003; Bratzel, 1999; Lehmbrock et al., 2005). We have discussed how different responsibilities at regional level may improve the institutional conditions for an integrated land use and transport policy at municipal, county and state level. The report is based on three qualitative case studies, with document analyses and semi-focused expert interviews as the methodology (Leite et al, 2007).

We have chosen three regional governance schemes: the administrative pilot scheme in the Kristiansand region in Norway, the former county model of Funen in Denmark and the regional model of Greater Hanover in Germany. The governance schemes of the case regions could be described as three distinct models of enhanced regional governance. The case studies differ in the relationship between public authorities and other stakeholders (network governance), as well as in the relationship between the administration levels (multi-level governance). These differences have given us the opportunity to study the significance of different institutional settings at a local level as well as the significance of different national planning systems and allocation of competencies (Leite et al, 2007).

We aimed to answer the question: does a strengthened regional level contribute to reducing the gap between intentions and actual results of a policy that prescribes integrated planning and development of land use and transport? All models of regional governance in the studied cases performed well as regional coordination schemes, due both to the institutional design and to the quality of the dialogue between the stakeholders involved. There has been little evidence that the local level, represented by the municipalities, has lost influence due to a stronger regional level. Hence, regional governance can primarily be seen as a necessary intermediary level between the national administrative and policy level (goals, instruments and planning requirements) and local planning interests. When we presuppose an urgent necessity for implementing sustainable land use and transport planning, we simply need regional governance to secure policy commitment, and professional engineering at an administrative level is required for implementing national goals for integrated land use and transport planning in the municipalities.

In the report we have seen that an enforced regional governance is a necessary, but not sufficient condition for closing the gap between national policy goals and local implementation of an substantial integrated land use and transport policy (such as urban concentration versus urban sprawl, reduced car use and improved public transport). Regional governance schemes face several challenges in achieving more sustainable land use and transport planning: *first*, the regional level is dependent on sufficient demand and support from the national policy level and on consistent policy instruments. Both in Funen and Kristiansand ambiguous

goals and incentives appeared to influence the ability to follow the substantial goals of integrated planning. *Second*, historical patterns of settlement may constrain the possible choices at hand, as in Funen. *Third*, the path dependency of institutions at both local and regional levels may hamper changes in planning such as in Kristiansand and Funen. *Fourth*, the range of competencies at the regional level may be too limited to "make a difference". With regard to road investment planning, this was the case in all the observations.

Regional governance appears to be a reasonable institutional level of organising land use and transport planning in the context of modern transport and commuting patterns. However, the assumption of improved institutional conditions, as explanatory variables, is also in need of modification:

First, regional coordination across municipal borders and sectors facilitates procedural integration and counteracts fragmented policy decisions on land use and transport.

Second, setting up a new regional network of governance, such as in Kristiansand, may alter the position of the different stakeholders and authorities, but there the institutional purpose and professional bias of the planner tend to maintain continuity rather than a shift of priorities.

Third, regional governance structures will extend the responsibilities for the available instruments, but mostly through an accumulation of instruments that have traditionally been in the hands of local and regional stakeholders. Instruments such as road pricing and the most important investment decisions are largely still in the hands of the local and state levels, but the observations in Funen and Kristiansand show that strong or strengthened regional governance does not alter road investments priorities. Moreover, there seems to be strong political consensus for wanting more funding for both public transport and road investments in regional network. This coalition may endanger the drive to reduce car transport as stated in the substantial national goals for integrated land use and transport planning.

Fourth, regional governance may counteract the fragmentation of land use and transport planning as segmented political cycles with different arenas that are only loosely coupled. However, the integration differs and is dependent on the planning processes. Hence the efforts and ability of the regional planners to communicate with the local authority and create a common understanding are affected. Trust seems to be crucial for achieving integration of land use and transport planning at the regional level.

Fifth, regional governance may alter the power of the stakeholders and thus "respond" differently to external events. However, we have not found any external events that have significantly reduced the gap between planning intentions and results. The land use and transport policy, as in the Hanover region, could be said to be largely in accordance with the principles of an integrated land use and transport policy. This was the result of a long-lasting regional policy and professional consensus combined with regional competencies to fulfil these guidelines. Also, in the Hanover region, the principle of integrated land use and transport policy was put under pressure by bargaining between municipalities and other stakeholders. Hence, regional governance matters, but a strong regional level is not enough to achieve the goals of a sustainable land use and transport

policy. Here we are in need of a strong policy commitment from the national and regional institutions, high administrative capacity and an enduring administrative and professional commitment, together with a more coherent set of policy instruments to handle goal conflicts and ambiguity in the different sectors and policy targets.

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Appendix A: Interviewees in Kristiansand and Funen

Kristiansand region

Abrahamsen, Oddvar, Bussen (bus operator)

Arntsen, Dag, Soegne

Haugland, Ole Tobias (Birkenes)

Hellem, Bjoerg, Vest-Agder (land use project)

Holvik, Oeystein, ATP transport project

Hope, Anne Mette, Birkenes

Kristiansen, Are, ATP land use project

Mjaaland, Johan, local Road Administration

Riseng, Kåre, ATP transport project

Storsve, Leif, Vest-Agder (transport project)

Funen region

Poul Weber, Chairman (2002-2005) of the Transport and Environment Committee and Chairman, Funen County Council (2006)

Bo Andersen, Mayor, Ringe Municipality

Sten Nørskov Laursen, Director, Transport and Environment Area

Jørgen Dan Petersen, Director, Nature and Water Issues Department

John Schiøler Andersen, Director of Planning, Roads Department

Knud Jensen, Head of Road Region's Bureau for Public Transport, i. e. "Director "FynBus"

Appendix B Interviewees in the Hanover region

Fallstudie Hannover: Terminplan für Interviews Gesamtregion und Einzelfallstudien (3)

Thema	Ansprechpartner/in	Institution	Termin	Interviewer/in Verantwortl. Autor/in
Vorgespräche Auswahl Einzelfallstudien	Prof. Dr. Axel Priebs, Ehrer Regionsrat, Dez. III Umwelt, Planen und Bauen;	Region Hannover	16.07.2007	Fürst, Löb, Zibell
	Dipl.-Ing. Klaus Geschwinder, FB ÖPNV und Integrierte Verkehrsentwicklungsplanung	Region Hannover	09.08.2007	Fürst, Löb Zibell / Löb
	Dipl.-Ing. Jürgen Nicolaus, Team Regionalplanung			
Einzelfallstudie Siedlungsentwicklung				
• Seelze Süd	Dipl.-Ing. Karin Winkler, Stabsstelle Seelze Süd	Stadt Seelze	13.09.2007	Löb, Zibell
• Kronsberg	Dipl.-Ing. Gerhard Kanz, Sonderplanung	Landeshauptstadt Hannover	13.09.2007	Löb, Zibell
• Weiherfeld	Dipl.-Ing. Rudolf Hölscher / Dipl.-Ing. Carolin Otzenmeyer, FB Planen und Bauen	Stadt Langenhagen	24.09.2007	Löb, Zibell
Einzelfallstudie Eigenentwicklung				Fürst / Zibell
• Wedemark	Dipl.-Ing. Holger Zorn / Dipl.-Ing. Oliver Schultz, Bauplanung, Bauordnung	Gemeinde Wedemark	24.08.2007	Fürst, Löb
• Sehnde	Dipl.-Ing. Gotthard Kratz, Bauamtsleiter	Stadt Sehnde	29.08.2007	Fürst, Löb
• Neustadt	Dipl.-Ing. Niels Jacobs / Dipl.-Ing. Wippermann, Team Stadtplanung	Stadt Neustadt a. Rbge.	05.09.2007	Fürst, Löb
• Springe	Dipl.-Geogr. Hermann Aden, Baudezernent	Stadt Springe	11.09.2007	Fürst, Zibell
Einzelfallstudie Einzelhandel				Löb / Fürst
• Bahnbrailevard Hövermann	Dipl.-Ing. Gotthard Kratz, Bauamtsleiter	Stadt Sehnde	29.08.2007	Fürst, Löb
• Fachmarktstandort Westfalenstraße	Dipl.-Ing. Rudolf Hölscher / Dipl.-Ing. Kerstin Widowsky, FB Planen & Bauen	Stadt Langenhagen	10.09.2007	Fürst, Löb
• Lehrte	Dipl.-Ing. Burkhard Piersch, Stadtbaurat	Stadt Lehrte	19.09.2007	Fürst, Löb
Übergeordnete Perspektiven: Nachhaltige Regionalentwicklung / Regional Governance				Zibell, Fürst, Löb
	Prof. Dr. Axel Priebs, Leiter Dez. III Umwelt, Planen und Bauen, Erster Regionsrat	Region Hannover	28.11.2007	Fürst, Löb, Zibell
	Dipl.-Ing. Jürgen Nicolaus, Leiter Team Regionalplanung	Region Hannover	08.11.2007	Fürst, Löb, Zibell
	Prof. Dr. Eckart Gildemeister, Abt. Raumforschung und Landesplanung, ehem. Fachbereichsleiter Planung und Naherholung	Leibniz Universität; ehem. Kommunalverband Großraum Hannover KGH	17.10.2007	Fürst, Löb, Zibell
	Dipl.-Geogr. Ingrid Heineking, freie Planerin, Geschäftsstelle Planungsfrauen / Dipl.-Pol.wiss. Katja Schiffer, Team ÖPNV-Marketing, ehem. Gleichstellungsbeauftragte / Dipl.-Ing. Christiane Wegner, Team Regionalplanung	Planungsfrau Fachfrauen in der Region Hannover; ehem. KGH / Region Hannover	30.10.2007	Löb, Zibell
		Region Hannover		

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Organisering av kollektiv og offentlig betalt transport i Norden - En oversikt	996/2008
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Effekter av tiltak på sykefravær	992/2008
Fylkeskommunens bestiller- og samordningsrolle i samferdselssaker	990/2008
Regionale virkninger av infrastrukturinvesteringer - en litteraturstudie	989/2008
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Trafikksikkerhetsindikatoren for alkohol i Safetynet - Datakvalitet i utvalgte land og sammenligning med andre alkoholindikatorer	985/2008
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Sentralisering og regionforstørring. Endringer i arbeidsmarkedets og tjenestetilbudets geografi	981/2008
Fylkeskommunenes arbeid med universell utforming av kollektivtransporten	980/2008
Transportytelser i Norge 1946-2007	979/2008
Regionforstørring og utslipp av klimagasser	978/2008
Ekspressbuss mellom Kongsberg og Sandefjord	977/2008
Reisevaner på fly 2007	974/2008
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Bilens betydning for eldre gruppers velferd og livskvalitet	1000/2008

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