

CATCH MR

Oslo / Akershus Workshop - Documentation

The 5th workshop for Catch MR Interreg IV C was held in Oslo and Akershus at 7-9 March 2011. The main themes of the workshop were Parking Policy, Road User Charging, Financing Public Transport and Public Transport Priorities.



30.12.2011

Contents

1	General	4
1.1	Introduction	4
1.2	Programme Oslo and Akershus Workshop 7-9.March 2011	5
1.3	Participants	7
2	Welcome speeches	11
3	Workshop working groups - General	12
4	Parking Policy	13
4.1.1	Presentation of good practice, Gothenburg Region	13
4.1.2	Group discussions.....	15
5	Road User Charging.....	16
5.1.1	Road user charging among Catch-MR partners	16
5.1.2	The Oslo Packages have facilitated major infrastructure investments	17
5.1.3	Agreement on toll ring in Gothenburg.....	18
5.1.4	What explains the differences between regions?.....	19
6	Financing Public Transport.....	19
6.1.1	Public transport requires large costs and revenues	19
6.1.2	Transport revenues should be viewed in the context of purchasing power	20
6.1.3	There has to be a stable, long term framework for funding transport.....	21
6.1.4	Focus on the strategic level is important for improvements at the MR-level....	22
6.1.5	Increased economic efficiency is an overriding goal.....	23
6.1.6	Investment programmes should be developed and financed at the strategic MR-level.....	23
6.1.7	Procurement of services is an important function for controlling costs and stimulating quality.....	24
6.1.8	Ticket revenues make up about half of the incomes for public transport, and are open to frequent debate	24
6.1.9	Road user charging is an important additional source of income, with wider economic benefits	25
7	Public transport priorities	25
7.1.1	Vienna and Lower Austria	25
7.1.2	Priority on existing roads	26
7.1.3	Lessons to be learned.....	27
8	International women's day special program: Gender in transport	28
9	Summing up tables from the working groups.....	29
10	Excursions.....	35
10.1	Bus tour Oslo and Akershus.....	35
10.1.1	From Oslo centre to the outskirts.....	35
10.1.2	Excursion for the Lørenskog Municipality	36
10.1.3	Excursion for the Skedsmo Municipality	37
11	Catch Inventories Oslo Workshop – Summary SWOT and a comparison on income sources and costs	38

11.1	Summary SWOT	38
11.2	Comparison – sources of income and costs	57

1 General

The Oslo / Akershus workshop was held jointly in Oslo Town Hall and in the meeting facilities of Akershus County on March 7-9 2011.

1.1 Introduction

The Workshop dealt with the following key themes

- Parking Policy
- Road user charging
- Financing public transport
- Public transport priorities

The Workshop included the following site visits:

- Reflecting the workshop themes
- Urban development / urban sprawl
- Lessons in public transport development and economic measures

1.2 Programme Oslo and Akershus Workshop 7-9.March 2011

March 7th 2011 Oslo Town Hall /Akershus County Administration

12.00	ISC –meeting, Oslo Town Hall Executive Committee Room (Formannskapssalen)
13.30	Workshop welcome Oslo Town Hall, Executive Committee Room
13.45	Guided tour of Oslo and Lower Romerike - Road-user funded investments, urban development and urban sprawl
17.00	Themes and findings from inventory Akershus County & City of Oslo
18.00	Mini site-visit / culture Central Oslo
19.30	<i>Dinner: Galleriet Gourmet Bistro</i>

March 8th 2011 Akershus County Administration, Galleriet

8.30	Public transport priority: Presentations from Vienna, Ljubljana and Budapest
10.15	Parking policy: Presentation from Gothenburg
12.30	Road-user charging: Presentations from Oslo-Akershus and Gothenburg
14.45	Financing public transport: Presentations from Rome-Lazio, Budapest and Berlin-Brandenburg

16.45	Gender in transport: <ul style="list-style-type: none"> - Presentations from Randi Hjorthol, Institute of Transport Economics (TØI), Norway
20.00	<i>Dinner:</i> Ekeberg Restaurant

March 9th 2011 at Akershus County Administration, Galleriet

8.30	Conclusions: financing and road user charging: <ul style="list-style-type: none"> - Summary and comments from the workshop, Einar Bowitz, Econ Pöyri - Questions and plenary discussion
10.00	Urban Sprawl <ul style="list-style-type: none"> - Presentation of CATCH-MR study , Petter Christensen, Institute of Transport Economics (TØI), Norway
10.30	Presentation of the next meeting(s): <ul style="list-style-type: none"> - Lead partner and Rome-Lazio
11.30 (Light lunch)	Joint activities between partners (Lead partner) <ul style="list-style-type: none"> - Political meeting 1 day in June - Comments on first draft of chapter B1 (Vienna/Gothenburg) - First thoughts, chapter B2 (Budapest/Oslo) - Other key outputs
13.30	Nordic Winter <ul style="list-style-type: none"> - Heftyes House, Holmenkollen

1.3 Participants

4th Transnational workshop – Encouraging more use of public transport

List of participants
07.-09.03.2011

PP	Institution	Name
Berlin-Brandenburg		
1	Joint State Planning Department Berlin-Brandenburg, GL 4	Frank Segebade
1	Joint State Planning Department Berlin-Brandenburg, GL 4	Corinna Elsing
1	Joint State Planning Department Berlin-Brandenburg, GL 4	Christina Schlawe
1	Ministry of Infrastructure and Agriculture, Department of Transport	Jobst-Hinrich Ubbelohde
1	Ministry of Infrastructure and Agriculture, Department of Transport	Wilfried Laboor
Budapest / BKSZ		
2	Municipality of Budapest, Office of EU-Affairs	Veronika Nóra Szemere
2	Municipality of Budapest	György Benda
3	BKSZ Budapest Transport Association	Balázs Fejes
3	BKSZ Budapest Transport Association	Balázs Hadászi
Ex	BKSZ Budapest Transport Association	Mr. Levente NAGY
Ex	BKSZ Budapest Transport Association	Laszlo Sandor KERENYI
Ex	Metropolitan Research Institute	Iván Tosics
Ex	BKSZ Budapest Transport Association	Mr. David VITEZY
Oslo / Akershus		
4	City of Oslo, Department of Environmental Affairs and Transportation	Siri Johanne Vik
4	City of Oslo, Department of Environmental Affairs and Transportation	Liv Maren Bjørnstad
4	City of Oslo, Department of Urban Development	Peter Austin

PP	Institution	Name
5	Akershus County Council, Department of Regional Development	Margaret Andrea Mortensen
5	Akershus County Council, Department of Regional Development	Marit Øhrn Langslet
5	Akershus County Council, Department of Regional Development	Tor Bysveen
Vienna / Lower Austria		
6	City of Vienna	Kurt Mittringer
6	City of Vienna	Angelika Winkler
6	City of Vienna	Gregory Telepak
7	Lower Austria	Hannes Schaffer
7	Lower Austria	Christian Popp
7	Lower Austria	Norbert Ströbinger
Rome / Lazio		
8	Province of Rome	Manuela Manetti
8	Province of Rome	Georgia Pucinischi
8	Province of Rome	Laura Cubeddu
8	Province of Rome	Adele Carlucci
8	Province of Rome	Emanuela Bea
8	Province of Rome	Giovanni Pagliaro
9	BIC Lazio SpA	Raffaella Labruna
9	BIC Lazio SpA	Luca Bardoscia
Gothenburg		
10	Göteborg Region Association of Local Authorities	Georgia Larsson
10	Göteborg Region Association of Local Authorities	Per Kristersson
10	Göteborg City	Per Bergström Jonsson
Ljubljana		
11	Regional Development Agency of the Ljubljana Urban Region	Matej Gojčič
11	Regional Development Agency of the Ljubljana Urban Region	Katja Butina
12	Scientific Research Centre of the Slovenian Academy of Sciences and Arts	Janez Nared
12	Scientific Research Centre of the Slovenian Academy of Sciences and Arts	David Bole
12	Scientific Research Centre of the Slovenian Academy of	Matej Gabrovec

PP	Institution	Name
	Sciences and Arts	

External project and financial management		
Ex	INFRASTRUKTUR & UMWELT	Dr. Jürgen Neumüller
Ex	INFRASTRUKTUR & UMWELT	Martin Reents
Further participants		
	City of Oslo, Department of Environmental Affairs and Transportation	Benedicte Bruun Lie
	City of Oslo, Agency for Roads and Transport	Helge Jensen
	City of Oslo, Agency for Planning and Building Services	Jostein Mundal
	Akershus County Council, Department of Regional Development	Njål Nore
	Akershus County Council, Department of Regional Development	Tom Granquist
	Akershus County Council, Department of Regional Development	Einar Hoel
	Ruter	Espen Martinsen
	Ruter	Halvor Jutulstad
	City of Oslo, Department of Environmental Affairs and Transportation	Ivar Sørli
	Secretariat for the Oslo Package 3	Henrik Berg
	City of Oslo, Traffic Agency	Frederik Martiniusen
	Econ Pöyry	Einar Bowitz
	TØI	Petter Christensen
	TØI	Randi Hiortol
	Akershus County Council	Inge Solli
	City of Oslo, Department of Environmental Affairs and Transportation	Per Morstad
	City of Oslo, Department of Environmental Affairs and Transportation	Eivind Tandberg

Enclosure A Summing up tables from the working groups (included)

Enclosure B Catch inventories of the Oslo workshop – Summary SWOT (separate doc)

2 Welcome speeches

The workshop in Oslo March 7. – 9. 2011 was opened with a welcome speech by **Mr. Per Morstad**, assistant director of infrastructure, Oslo's Department of Transport and Environment. He pointed out the importance of exchange of experience, and that this form of workshop can be very useful to form good practice within local government and administration. On this note he wished all participants a pleasant and productive stay.



The CATCH-MR project gets encouraging political backing from Oslo and Akershus. The deputy Mayor of Akershus County Council **Mr. Inge Solli** opened the working session of second day and shared his thoughts on public transport.

Solli told about the status and challenges in Akershus. The county is growing very fast and has a young population. Many Akershus citizens travel to Oslo for work, and Oslo and Akershus need to work together closely in areas like long term planning and transport. This has resulted in a common company for public transport, Ruter. The Oslo region is Norway's dominant transport hub for goods and passengers, but still has big unsolved issues, especially related to railway infrastructure. The deputy Mayor elaborated on some points after his introductory speech.

«We are really putting a lot of effort into making better solutions for public transport, and it seems that we are doing something right. We had an increase of passengers of 5.8 percent last year, and we hope to increase the number even more this year.» He is very positive to the Catch MR project. «Our toll road system, for example, is unique, and it is good that other cities can learn from what we do. I think the best thing about our toll system is that half of the money we earn from it is dedicated to public transport.»

Solli also talks about the climate challenge and how the public transport company, Ruter, is focusing on public transport solutions that are good for the environment.

«We recently started a project with buses that will run on hydrogen; they will be on the roads from 2012. We are also building a filling station for the hydrogen. This is really exciting!»

3 Workshop working groups - General

In the following the reports from the groups on the Workshop key themes are presented (from chapter 5 onwards).

The Workshop participants were given a method for a common working platform. This method was “constructed” among the partners.

Each theme was introduced by 2 or more presentations from partners. Good and less good experiences were shared and briefly discussed within the plenum.

Following this, smaller group discussions were held using an adaptation of Nominal Group Technique. The participants were divided into 4 groups with a mix of members from each of the partners. The groups were given a single key question to discuss within each theme. Each participant was allowed a short time to think for themselves and write down 3-5 possible answers or positions to the key question. These responses were then read out in turn and a list of all responses was compiled, representing the aggregate views from all members of the group. Then each group was asked to simplify their list by consensus (eg by merging similar or identical responses, or deleting irrelevant ones), and then each participant was invited to vote for their 4 preferred responses.

The results were then given as a joint response with prioritised responses. The responses reflected the groups’ individual and collective views. The conclusions from each group are given in enclosure A at the end of this report, and represent empirical results from the working groups.

See also a short description of the workshop method in Chapter...Summing up tables

Each working group presented a summing up table from the proceedings. These tables are gathered in Chapter 9.

4 Parking Policy

This chapter presents the results of the working group on parking policy.

The aim of the session was to discuss possible features and effects of parking policies seen in a metropolitan-regional perspective. Gothenburg Region presented a recent study on the theme, and the following group discussions were based on the question: How could parking contribute to increased use of public transport?

4.1.1 Presentation of good practice, Gothenburg Region

The introductory presentation „Park the car!“ was held by Mr. Per Kristersson from Gothenburg Region Association of Local Authorities. They had asked the question: “Is parking policy an efficient tool for promoting public transport?”

About the study

The study had assessed the effects of six traffic measures on combined journeys between eight starting points/origins and five destinations, making a total of 240 combinations. Both origins and destinations were selected as representative for the area and types of trips. The study was an analytical work, not based on empirical data.

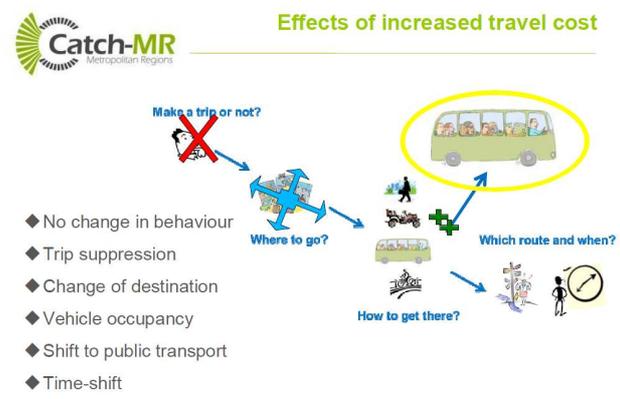
	City centre	Working areas		Shopping areas	
Description	City centre	Semi-central	External	Semi-central	External
Gothenburg Example	City centre	Lindholmen	Åbro	Backaplan	Sisjön
Parking availability	Low	Good	Good	Good	Good
Parking cost	High	Average	None	None	None
Public transport	Train, tram, bus	Trunk bus	Bus	Tram, bus	Bus
Public transport frequency	High	High	Low	High	Low

Choices made by traveller

The study aimed to discuss how a policy can change travel behaviour, and how different measures can change travel behaviour in different ways. Of all the choices made before a trip, “how to get there” is the preferred object of impact. Possible unintended effects were also considered

Parking measures

The measures reviewed were: increased parking fees, reduced parking availability, differentiated use of P-facilities and commuter parking policy. The parking measures were also compared



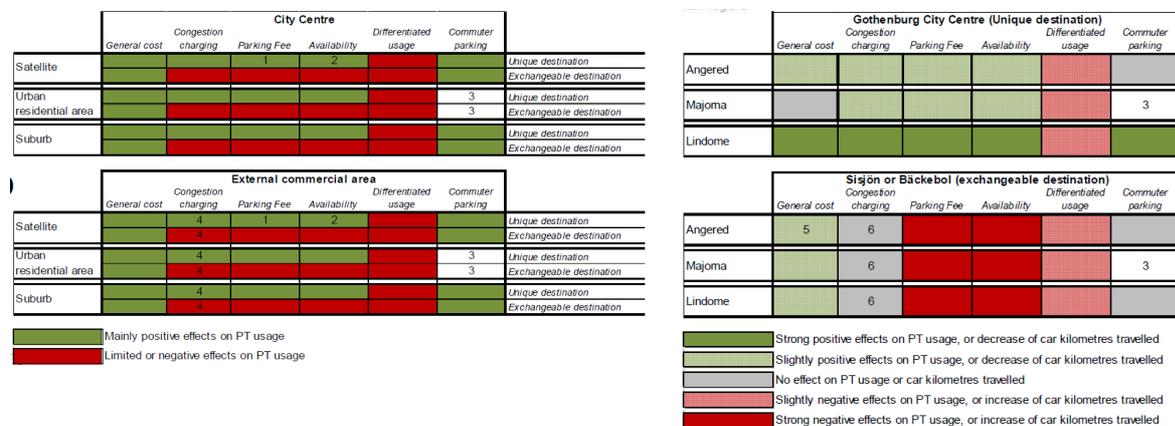
	City centre			Sisjön/Backebol		
	PT quality	PT Share	Congestion charging	PT quality	PT Share	Congestion charging
Angered	Good	High	Yes	Good	High (work) Low (shopping)	No
Majorna	Good	High	Yes	Bad	Low	No
Lindome	Good	Low	Yes	Bad	Low	No

Green box: Potential for increased PT share
Red box: Limited potential for increased PT share

with general increases in driving costs and congestion charging. Gothenburg made a point of how all the different measures in the end come down to money.

Case study and analysis

The analysis consisted of testing combinations of origins and destinations with the different measures, and discussing possible effects. Other important parameters were whether the destination was unique or exchangeable, and the quality and share of public transport on the specific travel. These were assumed to affect the possibility to change travel behaviour by parking measures.



Discussion and conclusions

Parking costs and availability: If a destination is exchangeable, i.e. in competition with others, restrictive parking measures at only one location will most likely lead to drivers going elsewhere rather than using public transport. Car-based developments with free parking will become more competitive. General measures such as car-fees and policies for commuter parking are more likely to work. If on the other hand a destination is unique, i.e. there are no alternatives locations to travel to site-specific parking policy measures will have greater influence on car use.

At the origin of the journey, there is a strong correlation between parking availability and car usage. In residential areas that are already built for car use, it is difficult to reduce availability of parking or to change peoples' travel behaviour. Parking therefore needs to be an integrated part of the early strategic planning phase, seen in the context of land use, density, and connectedness to public transport.

Commuter parking: Park-and-ride-systems are considered to be a good way to reduce the pressure of road traffic and promote use of public transport in most city centres. The Gothenburg study suggests that park and ride is an efficient tool in the short term or where local public transport is not good enough, but that it can be negative for public transport in the longer term if it undermines the market for feeder buses. Also, sites close to public transport hubs are often attractive development areas.

Differentiated parking: Parking policies that favour for example low-emission vehicles are also considered a short term solution as people would react to the policy and change their car. Time differentiation for parking, on the other hand, may be directly harmful. If residents in an area have to move their cars during daytime to give way to workers, this may make better use of parking spaces, but cause more traffic.

Congestion charging: In Gothenburg, road user charging will hopefully reduce use of private cars, whereas public transport and bike/pedestrians will go up. It is assumed to have a greater impact than equally sized parking fees. It may, however, cause a change of time or of destination as a side effect.

Change in number of trips	Car	Public Transport	Bike/Pedestrian	Total
Weekday in the Gothenburg area	- 34,000	+ 13,000	+ 6,000	- 15,000
	- 3,4%	+ 2,9%	+ 1,3%	- 0,8%

Lessons to be learned: The best potential for using parking to increase the use of public transport lies in areas with a good public transport service that is underused. If the share that uses public transport is already high, those who can use public transport already do and parking measures will most likely have negative effects. In Gothenburg's case a parking policy might have most potential in the more wealthy suburbs. It is however difficult to design restrictive parking measures that affect only selected groups or areas of residents.

The Gothenburg study concluded that positive and encouraging measures such as commuter parking and an efficient public transport system have more potential than the negative and restrictive parking measures. These conclusions were supplemented by experiences from other partners, suggesting that a consistent regional parking policy could have a potentially positive effect for public transport, but would be difficult to achieve across administrative borders. In some regions, simpler measures, such as stronger enforcement of already existing parking restrictions, will make a difference.

Decreased availability of parking both at origins and destinations were discussed. In Oslo, restrictions in availability at working places have led to reduced car-commuting. Removing parking-places in city centres gives the added effect of gained and more attractive public space, thus making the city centre a unique destination once again.

Linking payment for parking with public transport was also discussed, with a wide range of possible schemes, all of which presuppose transparency in revenue management.

4.1.2 Group discussions

The groups were challenged with the question: How could parking policy contribute to increased use of public transport? The scheme at the end of the chapter documents the results. In the following, some of the points made in the discussions will be summarized.

Park & ride: In all the groups, variations of park & ride solutions got a high score. Group 4 addressed the irony that park & ride got the highest score in spite of the assumption of the study that it may increase overall traffic and harm the local public transport system in the long run. Group 2 focused on how park & ride is a good incentive to make people use public transport into the city centre, and reduce traffic in urban areas.



Regional parking strategy: – differentiation of price and availability consistently across the region, with maximum limits to parking spaces. Group 1 discussed the negative effect parking restrictions may have, in that they exclude people who for some reason cannot use public transport. Group 2 discussed what a regional parking strategy needs to deal with in terms of combinations of measures. Restrictions in one area always have effects on surrounding areas, e.g. restricting parking in the city centre may cause parking problems in surrounding residential areas.

Integrated solutions were discussed also in relation to financial issues. Group 2 and 4 stressed how parking revenues should be used to run public transport. Group 1 discussed how higher parking costs in the city centre could promote use of park & ride, and group 2 and 4 called for free park & ride with (seasonal) ticket to public transport.

It was discussed how parking restrictions are preferably implemented in the planning phase of urban development. Group 2 discussed how it is important to make the developers restrict parking spaces and pay for the infrastructure they use, also in new residential areas.

5 Road User Charging

This chapter presents the results from the working group on road user charging.

5.1.1 Road user charging among Catch-MR partners

Most of the partners of Catch-MR already have some form of road user charging at the national level, such as motorway-fees. Oslo-Akershus is the only partner region which has introduced road user charging at the metropolitan level. In Gothenburg it has been decided to establish a toll ring for congestion charging, while planners in Budapest are developing a toll ring to meet the requirements for EU-funding of a central metro-link in the city. In Ljubljana

and Rome there are tentative discussions about using such measures. In Berlin-Brandenburg and Vienna, strong public opposition to road user charging seems to make it very unlikely in the near future.

5.1.2 The Oslo Packages have facilitated major infrastructure investments

In Oslo-Akershus the main purpose of the toll ring has been to generate additional revenue for transport infrastructure. Through the Oslo Packages a number of infrastructure investments have been made possible long before they otherwise would have been realized, if at all. Road user charging can also be used to help reduce congestion and climate emissions. During the Oslo workshop, the partners of Catch-MR discussed pros and cons of road user charging and whether the experiences of Oslo and Akershus can be transferred to other metropolitan regions.

Henrik Berg, Secretary of Oslo Package 3, gave a presentation of the Oslo Packages, with main focus on the objectives and management of Oslo Package 3.

The toll ring in Oslo was established in 1990, based on a political agreement between Oslo, Akershus and the national government. The government agreed on extra funding equal to the toll revenues. Oslo Package 1 was a plan to fund 31 strategic investments in road infrastructure. A similar agreement for public transport investments was made in 2000 (Oslo Package 2)

Public transport – infrastructure and operations

- Almost 50% of the € 8,5 bn allocated to public transport in Oslo and Akershus
 - new infrastructure
 - major upgrades existing lines
 - minor upgrades (~ maintenance)
 - operations
 - At least 25 % of the toll charges (~ € 80 mill. annually) to be used to buy public transport services (incl. minor upgrades in Oslo)*
 - A detailed 20 year investment plan put forward
 - birth help new offerings
 - financing of rolling stock
 - real time information system
 - etc.
- * A change in legislation was necessary (the Road Act)



In 2008 a new political compromise was agreed for another twenty years of toll-ring financing. Oslo Package 3 includes investments in road, rail and bus infrastructure as well as funds for operating public transport. The main objectives, according to the White Paper of March 2009, were to:

- reduce congestion during rush hours
- facilitate more travels by public transport, bicycling and walking
- reduce noise and air pollution, and greenhouse gas emissions
- reduce the number of killed or seriously injured
- ensure access for all groups of transport users
- improve qualities of the city/suburbs

5.1.3 Agreement on toll ring in Gothenburg

Per Bergström Jonsson, former leader of the investigation consortium, gave a presentation of the congestion charging scheme of Gothenburg.

In Gothenburg it has been decided to establish a toll ring for congestion charging from 2013. The main objectives of the congestion charging scheme are to reduce congestion, improve accessibility and reduce pollution in the core and to finance major infrastructure projects in the Gothenburgregion.

The Gothenburg CCS:

- Is making the traffic system even better.
- Promotes public transports and other ways of solving your daily life than by using your privately owned car.
- Technically a copy of the Stockholm CCS.
- The economic net revenues will be used to promote the transformation of the regional core.
- The CCS is an integrated part of the big solution for the region.




The economic growth in the whole region depends on a well functioning core, and the congestion charging scheme is an integrated part of the “big solution” for the region. The system will promote public transport and other ways of solving daily life than by using private cars. The economic net revenues will be used to promote the transformation of the regional core. The congestion charging scheme is thus supported by regional development planners and decision makers.

5.1.4 What explains the differences between regions?

Economists would argue that road user charging is a way of including the external costs of car use, as well as leading to economic benefits from increased traffic flows as a result of more capacity and better public transport. What explains the different attitudes towards road user charging among the partners of Catch-MR?

Many of the partners already have motorway tolls or other forms for traffic restrictions. Is an additional charge acceptable? In the Oslo-Akershus case this was essential to achieve government funding for modernizing the transport network. Would similar agreements with national governments or the European Union be an important precondition? The partner regions have different historical, economical and cultural backgrounds, and the practical challenges vary from city to city. Road user charging would appear to more suited and perhaps acceptable in some regions than others.

Lessons to be learned

Through discussions in four groups the participants of the Oslo workshop identified and ranked preconditions for introducing road user charging in more cities. The most important were identified as:

- Broad political consensus is necessary to secure long-term support.
- Clear policy goals need to be communicated.
- Public transport must be a reliable alternative to private cars.
- It is important to have public trust and full transparency for the scheme.
- It must be ensured that revenues are reused for to improve the region's transport, including public transport.

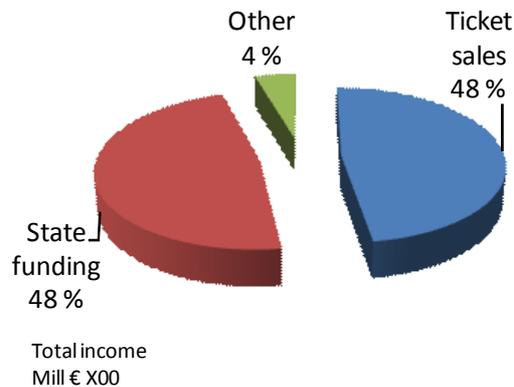
6 Financing Public Transport

This chapter presents the results from the working group on financing public transport.

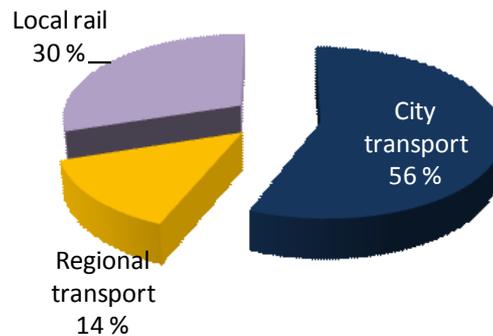
6.1.1 Public transport requires large costs and revenues

To encourage public transport through improved financing, metropolitan regions must develop their understanding, management and policy on the basis of an overview of the cash flows involved. The illustrations below show how this can be pictured for all the partners' regions.

Revenue sources

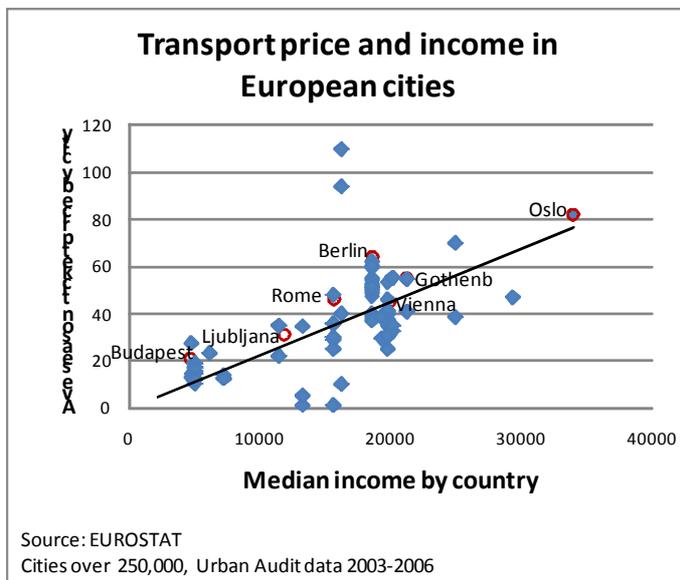


Transport providers



The pie chart on the left shows a typical breakdown of revenues (in this case for Berlin-Brandenburg), where ticket sales and public sector support are more or less equal in amounts. The pie chart on the right shows a typical breakdown of expenditure by the transport service providers (in this case for Budapest / Budapest region), where city transport, regional transport and local rail services each have to meet their costs.

6.1.2 Transport revenues should be viewed in the context of purchasing power



Ticket prices vary with household incomes between cities and countries. Berlin and Budapest have higher ticket prices than may be expected. Running costs vary in the same way as ticket prices, but there is less variation in investment costs between European countries. Additional local investment should be stimulated by joint financing, eg from EU or national governments.

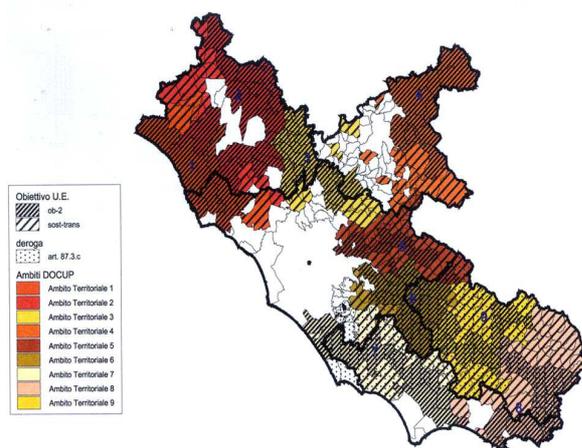
6.1.3 There has to be a stable, long term framework for funding transport

There are two basic preconditions for being able to deliberately manage and develop the public transport system in each metropolitan region. The first issue is transparency in the overall funding picture, with good access to information on cash flows and priorities. This allows both public scrutiny and the possibility of strategic decisions. The second issue is long term sustainability, which involves both relatively secure levels of funding for transport services in the foreseeable future, and a sound legal framework for decision making and operation. Budapest has experienced unpredictable changes in the levels of funding, and long-term underfinancing of its public transport system, which stands in the way of making and following up long term strategies for improving the service.

Simplified organisation enables strategic decisions and economies of scale

An important factor that has emerged from partners' contributions is how the public transport service is organized. Public transport services have evolved in each region according to local, historical and cultural factors. There is no one answer, but the partners' experience, especially from Berlin-Brandenburg and Oslo-Akershus, suggests that by simplifying their funding and management structure, the owners of public transport are more able to see opportunities and make strategic decisions, as well as attain efficiency measures through economies of scale. As well as enabling efficient service provision, the recent simplification of the structure of zones and fares in Oslo and Akershus is an example of how a unified structure can pave the way for substantial improvements. At the same time, partners have been reminded of the experience from Budapest, and possibly Vienna, of the potential challenges posed by public transport being run as a monopoly, where a culture of uncritically meeting all costs can lead to chronic inefficiency.

Province of Rome & Lazio Region



Public transport services in the Lazio region are fragmented, with national, regional and municipal ownership of transport companies.

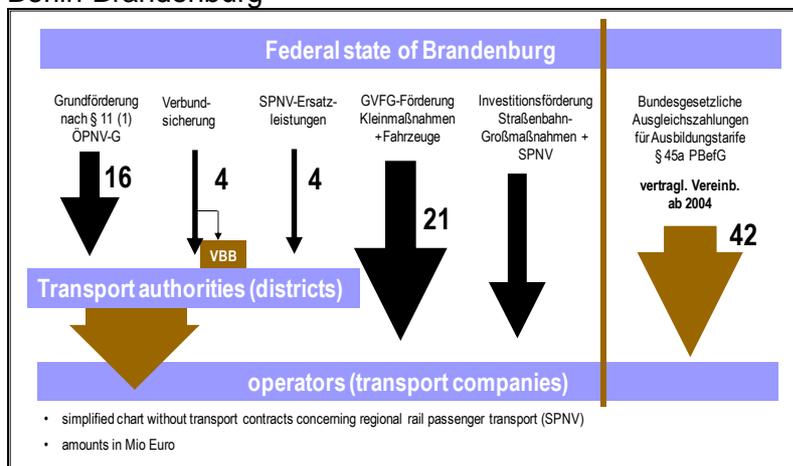
Local public transport in the region is represented by a patchwork of bus companies.

Greater coordination between the services could improve mobility and make public transport a more attractive option.

6.1.4 Focus on the strategic level is important for improvements at the MR-level

Policy for financing public transport in MAs has to be developed in a long-term, strategic way. It is important to develop long-term, realistic goals that are not strongly influenced by day to day issues. At the same, subsidiarity is important, and finding the best regional level for decisions and administrative work relating to financing for public transport. A first step should be to build up and maintain an overall picture of the financial flows and costs involved in transport across the whole MR and all the transport providers.

Berlin-Brandenburg

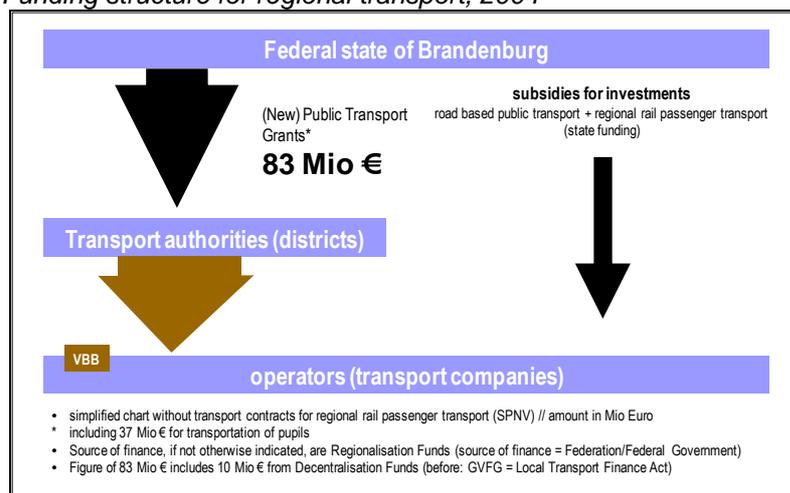


Reform of the regional transport funding system in Brandenburg in 2005 has led to better control, more effectiveness and potential efficiency gains.

The authorities have seen the following improvements as a result of this reform:

- The previous jungle of public funding was disentangled
- Concentrated funding
- More flexibility in spending (for consumptive purposes and/or investment measures, accrual of funds possible)
- Planning reliability

Funding structure for regional transport, 2004



Funding structure for regional transport after reform, 2008

6.1.5 Increased economic efficiency is an overriding goal

Improved financing for public transport can be broadly understood in the context of revenues/incomes and expenditures/costs. Both these issues have been discussed by the partners. Overall, financing can be improved through improved efficiency, so that the same service can be provided for less money, or improved services can be provided for the same funds. This is a serious challenge, since expenditures to improve services will not necessarily lead to corresponding increases in revenue, at least in the short term. Put simply, increased frequency in buses or trams will not immediately mean that more tickets are sold, as the majority of passengers already use season tickets.

6.1.6 Investment programmes should be developed and financed at the strategic MR-level

In MRs which are experiencing the negative effects of economic recession, additional funding for strategic transport investments can boost the local economy, both in the short term through large scale construction projects, and in the longer term through becoming a more attractive and accessible environment. However, there is a danger of overlooking the risks of repeating former examples of poorly planned investment during times of more abundant funding. Investments should be planned over the long-term, as they should lead to substantial increases in ticket revenues, at the same time as efforts should always be made to increase the sale of tickets to obtain more funding early on in an investment programme. Lastly, public-private partnerships should be explored as mechanism for enhancing the investment process and securing long-term financial support and risk-sharing.



New rolling stock and metro station, funded by Oslo-Akershus road-user charging scheme

6.1.7 Procurement of services is an important function for controlling costs and stimulating quality

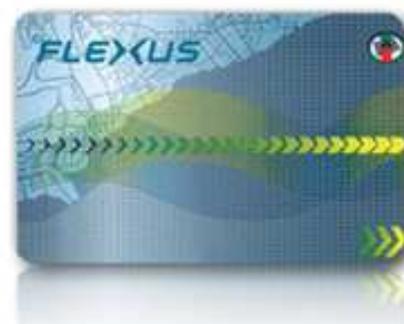
Partners in CATCH-MR are aware that competition between service providers is an important tool for stimulating both cost effectiveness and improved quality of transport services. Competitive tendering for bus services is well established in most of the MRs, but competition for the tracked services, particularly trains, can be developed further. Once the principle of tendering for services has become established, incentives and “bonus-malus” agreements can be introduced, including payments relating to service quality, passenger volumes and other important policy objectives. Agreements such as these are still being developed and, as such, are most advanced in the older member states and Norway. Examples could be given from both Berlin-Brandenburg and from Oslo-Akershus. In addition to transport services, management services could also be contracted out with a view to increasing effectiveness.

6.1.8 Ticket revenues make up about half of the incomes for public transport, and are open to frequent debate

Increasing revenue from sales of tickets can be a major political challenge, as the fare prices are very sensitive to public opinion. Some would argue that most public transport passengers are already using the services and have little choice, so the fares could easily be increased to get more revenue. Others may argue that there are few votes to be gained in advocating fare rises, and the poorest residents would be hit worst. Interestingly, some of the partners – Berlin and Budapest – allocate additional funding specifically for meeting the costs of ticket subsidies for “social groups” such as pensioners and students. This could be an important feature of financing to ensure enough ticket revenues without negative distributional effects.



Traditional tickets are still widely used



Technical modernisation and simplified fare-zones could reduce costs and increase the sales revenues in the long term.

Looking ahead, ticket sales will probably be made easier and more efficient for both vendor and purchaser, as electronic tickets and web-based sales are introduced. These changes could allow for increased sales revenues in the longer term.

6.1.9 Road user charging is an important additional source of income, with wider economic benefits

Finally, the partners are interested in road user charging as an additional source of revenue. In Oslo-Akershus, the part of the incomes from road users are used to double the total public transport subsidy from Akershus County, and most of the money is used for a strategic transport investment programme. Economists would argue that this is a way of including the external costs of car use, as well as leading to economic benefits from increased traffic flows as a result of more capacity and better public transport. It is important that the financing with road user charging is organized with full transparency and that the revenues are reinvested in, or used to support, transport services in the region.

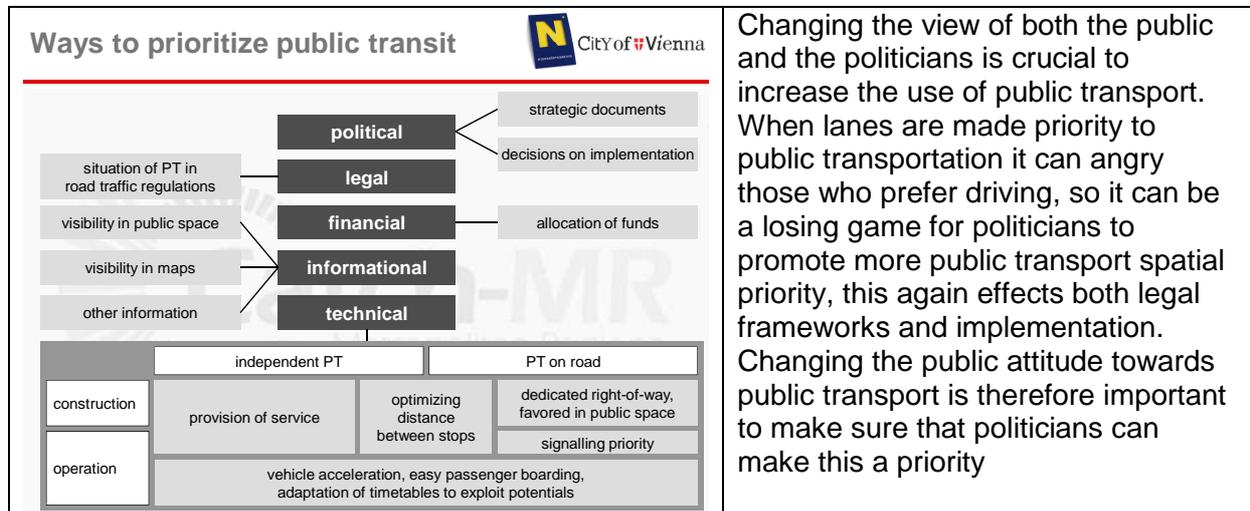
7 Public transport priorities

This chapter presents the results from the workinggroup on public transport priorities

The question of priority is essential to all levels of organising public transport. If public transport was a priority throughout the system, from political priority to spatial priority, we would not have much left to discuss. However, the question of priority is still on the agenda at all levels of the system. While the group discussions mainly answered the question of how people can be encouraged to use more public transport, the topic is much wider as illustrated by the presentations from Vienna, Lubljana and Budapest. Difficulties also vary between different cities. On a general basis giving public transport priority will encourage extended use.

7.1.1 Vienna and Lower Austria

Gregory Telepak (Vienna, Municipal Department 18), gave a presentation of the challenges in prioritizing public transport. The presentation listed five categories of public transport priority; *Political* (strategic documents, destitions on implementation), *legal* (public transport in road traffic regulations), *financial* (allocation of funds), *informational* (visibility in public space, visibility in maps, other information) and *technical* (separate public transport lanes, signal priority, optimizing travel time and distance between stops, easy passenger boarding).



Changing the view of both the public and the politicians is crucial to increase the use of public transport. When lanes are made priority to public transportation it can anger those who prefer driving, so it can be a losing game for politicians to promote more public transport spatial priority, this again affects both legal frameworks and implementation. Changing the public attitude towards public transport is therefore important to make sure that politicians can make this a priority

The strategy for prioritization in the Vienna region is based on the goal of 45% of trips over the borders on public transport by 2020 in the peak hours. The policy is that the main increase is to be made within the rail based public transport. One measure made to reach this goal is expansion of necessary infrastructure and densification of service. The critical issues are between drivers, cyclists and pedestrians. The conflict is mainly about allocation of space and how to integrate all groups without depriving one group more than the other.

7.1.2 Priority on existing roads

Both Lulijana and Budapest focused on the difficulties of prioritizing public transport within the existing roads and other technical difficulties connected to making such priorities safe and accepted by the public.

The presentations from Ljubljana and Budapest mainly focused on priority solutions on existing roads of their respective cities. Budapest referred to good practice with bus lanes and common shared public transport lanes, where bus and tram share a section of the road. Budapest has had good experiences with dedicated lanes and signaling for public transport, but they still see room for improvement. Many places there are lanes that are dedicated to public transport, but cannot be used. There are also examples where the dedicated lanes have restrictions that make them less efficient.

Budapest has also recently created an integrated transport-organising authority (BKK), to further integrate and organize the different sections of public transport. This enables priorities to be agreed at the strategic level. Along with the creation of BKK, Budapest also froze the public transport tariffs in 2011 and introduced a travel card that is valid for all public transport within the city boundaries. These strategic measures are intended to make public transport more attractive to the public and more effective.

Congestion is seen as the biggest problem within the Ljubljana region. The city is currently discussing how to prioritize public transport on the main roads that lead to the city centre. The question is whether to expand the existing roads with an extra lane for public transport, or to allocate one of the two existing lanes for public transport. Will the public accept the increased congestion that would result from removing one lane for cars?

- Take lanes from existing road leading into the city centre?
- The cost of building on to existing road
- The cost in public opinion if converting existing lane to pt lane
- Expanding the transport system
- Bus, tram, metro or BRT?
- Cost of different alternatives compared to revenue

Both Lubljana and Budapest also raised the issue of financial priority. These two regions have limited funding from local government. The high cost of building infrastructure leads prioritising a big challenge. The most efficient transport solutions are too expensive to introduce in terms of the revenue they would produce. There is also the question of sustainable and environment friendly means of fuel. Busses are the cheapest and most flexible solution but have the environmental cost of being fueled by diesel, as Lubljana pointed out in their presentation. So this is a short term and cost efficient solution, that might increase the use of public transport and make the public more prone to use this as an alternative. This might also increase the revenue and enable the city to upgrade other parts of the transport system over a longer period.

7.1.3 Lessons to be learned

Through discussions in four groups the participants of the Oslo workshop focused on the public's opinion in prioritization. The question posed was; *How can more people be encouraged to use public transport?* This question involved most of the previously discussed topics within priority questions; political, spatial, informational, technical and legal. The most important factors were identified as:

- Attractiveness
 - Faster and more convenient than cars
 - Comfort
 - Reliability
 - Information – use of new technologies
 - Price
- Incentives
 - Limit the use of cars through less priority on roads
 - Make the use of cars more expensive

8 International women's day special program: Gender in transport

International women's day celebrated 100 years on 8 March 2011, the workshop's second day. In 1978 Norway approved the Gender Equality Act. The public authorities are obliged under this legislation to work actively and systematically to achieve equality between genders in all aspects of society. Transport is included in the gender equality perspective, since this is essential for participation in work, education, shopping and leisure activities.

Scientist **Randi Hjortol** gave a lecture on her study of Gender in transport. Her follows her main points.

Important for women

More men than women have access to cars, have a driving license and are drivers of cars. Women are more often passengers, go by foot/bicycle and use the public transport most. The development and running of a good public transport system is therefore extremely important for women.

Women work more often in part-time jobs, spend more time doing house work and have more trips related to household tasks and caring for children. As a result women have shorter and more complex journeys to work. This means that there should be a frequent service and reasonable prices.

Women are generally more positive to public transport than men. Public transport is however generally less well adapted to women's travel, both concerning where it goes and accessibility for prams etc. What kind of structure for public transport would be best for women? In public transport the need for travelling during peak hours is given priority. The structure of the service is built for the main relations between home and work. Would a public transport service that will serve women have different routes and other frequencies?

Dominated by men

Unfortunately, women feel more unsafe than men when travelling on public transport, on the way to and from the bus stop and even at the bus stop. Which practical solutions might the transport companies come up with on to reduce these tensions?

The transport sector is dominated by men, both in planning, decision-making and running the system. It is promising that the share of women among leaders in transport companies and public administration is on the rise. Even among interest groups the share of women participating is increasing.

Transport is still a male bastion and women's transport needs should be given a higher priority.

9 Summing up tables from the working groups

Table: How could parking policy contribute to increased use of public transport

Table: What would be the preconditions for introducing road user charging in more cities

Table: How could public transport be financed under worsening public finance conditions
How could financing encourage more use of public transport

Table: How could more people be encouraged to use public transport

Workshop method

1. Each discussion group is given **one question** to answer.
2. Each member is asked to spend **5 minutes** writing his/ her preferred answers. **Up to 5 responses** per participant.
3. Each member reads out their responses, which are written as a **continuous list** on a screen that is visible to all.
4. **Identical or similar responses** are combined.
5. The group has 5 minutes to discuss **possible new combinations or clear up misunderstandings**.
6. Each member of the group writes their **4 preferred responses** from the long list.
7. **Votes** are read out and noted, with equal weight given to each vote.
8. The group discusses whether the final list of preferences reflects the group's view and discussions.
9. **Discussion points and arguments are noted** particularly during stages 5 and 8, and written up after the group meeting.
10. Results are saved for **full reporting after the workshop**.

The Leader must keep the time, and ensure that everyone's opinions are heard and recorded.

The secretary must note each suggestion in the joint table of responses, and note points during the discussion separately.

How could parking policy contribute to increased use of public transport?

<i>Group 1</i>		<i>Group 2</i>	
Responses	Result	Responses	Result
Price differentiation	nr. 1	Limited availability of parking spaces	8
Availability of parking spaces	nr. 2	Free parking with public transport ticket in park and ride areas	8
High parking fees in the city center will promote the use of p&r	nr. 3	Income from parking dedicated to public transport	6
High parking costs in the inner city		High prices on parking in crowded areas	5
Move parking spaces from the inner city to the suburbs creating lots of P&R with added value services		Location	2
Parking charges should be higher than pt ticket costs		Time related price system	2
Few parking spaces in city center		Legislation that provide tools for regulating the number and price of parking space	2
Reserve restricted parking lots for car sharing/car pooling cars		Need for a max limit to parking spaces, combined with public transport availability	2
Parking policy more effective than a toll ring		Create incentives for private investors to limit the number of parking spaces when building	2
High parking costs may make people go shopping in other towns further away		Residential parking limited to one car per household in central residential areas	2
Differentiated parking policy in the city center and other parts of the region		Safety aspects of parking spaces	1
The whole transport system must be taken into consideration			
Higher costs on street parking may encourage building indoor parking thus freeing areas for PT in the streets			
Parking restrictions on private property			
Maximum instead of minimum parking regulation			
Transparent revenue management			
P&R may reduce the use of pt if they're not located correctly			
PT ticket included in the P&R fee			
Taxation of private parking spaces			
ABC-principle - strikt regulation of parking in A-areas			
<i>Group 3</i>		<i>Group 4</i>	
Responses	Result	Responses	Result
Limiting parking space, no parking in certain locations - more public space for PT & leisure etc	7	Good, efficient P&R system	5
Park and ride with extended services, P&R in strategic locations in each corridor, good accessibility for P&R	6	Guarantee security of P&R	5
Regional parking strategy, max norms for P-spaces - differentiated across the region	4	Free parking with seasonal ticket	3
Use of P-revenues in PT	4	Parking at entrance of city and hubs/main transport corridors	3
Making public transport more competitive	3	Connecting payment system for parking and PT	3
Clear policy on parking as a tool for controlling traffic	3	Defining maximum number of parking places for new development (not minimum)	3
Planning for less parking in new residential areas - incentives for PT and disincentives for car use	3	No free use of public space for parking	2
Strong enforcement of parking restrictions	3	More information for car users in parking places about PT alternatives	2
Increased parking fees	2	Introducing consistent regional parking policy	1
Differentiation - free P&R in outer areas, cheap park and ride with good PT connections	2	Connecting price levels for parking and PT	1
Increase proportion of parking that is charged	2	Secondary choice locations for car users	1
Restrict free parking options for residents in the city	1	Reduction of parking places in city	1
Make parking less convenient in relation to destinations		Connect P&R with services	1
		High prices for parking in city centre (after creation of alternatives)	1
		Price for parking increases the more often the user uses facility	
		Price for parking decreases with number of passengers	
		Progressive parking fees in city centre + maximum time limit	
		Better control of existing parking rules	

What would be the preconditions for introducing road user charging in more cities?

Group 1		Group 2	
Responses	Result	Responses	Result
The existence of reliable alternative transport	8	Congestion problems visible to political leaders and the public	8
Agreement to use the revenue to enhance pt, Money should be used to directly address the problems	7	Road user charging must be used for improvement of public transport	6
Clear goal of the system (Environmental arguments, congestion etc), Transparency on how the revenue is used	7	Strong political consensus	6
Political consensus and public approval (referendum, political majority), Brave politicians	5	Functional public transport system incl park and ride	5
Big congestion problems in the city	4	Pollution	3
Legal possibility to introduce ruc (in Italy it is illegal to charge other roads than motorways)	1	Transparent spending and visible results	3
The cost of public transport should be acceptable	1	Good communication policy	2
Transport should be financed by transport, Lower income as a result of cleaner technology in cars can be covered by ruc as an alternative tax base	1	Transparent and fair legislation	1
Some of the costs should be covered by taxes	1	Reliable local governance	1
Road user charge should be introduced for the whole country, not only the cities	1	Involving the public in the decision	1
Easy system of incoming streets to the city center,		Reduce CO2 impact	1
		Revenues are partly to be used to improve roads	1
		Good practice	1
		Fair system for road user charges	
		If the public transport system is not used to it's capacity (running empty)	
		Designing the road user charging area to prevent congestion in nearby residential areas	
		Road user charging directed to target local problems	
		Sound analysis to present solutions that can be achieved	
Group 3		Group 4	
Responses	Result	Responses	Result
Need for infrastructure and alternative transport, improvement of public transport as an alternative	8	Wide understanding in the population of advantages of system, good communication	7
Clear policy and aims, Political consensus	5	Political consensus	6
Will to reinvest all revenue in transport	5	Legal basis	3
Broad public acceptance, Convincing the majority of people	4	Efficient PT system	3
Congestion	4	Perspective of real improvement for the road user	2
New legislation to enable RUC, eg: Need for full user costing - EU policy!	3	Lack of traditional funding	2
No conflict or competition in relation to other charging systems (eg: national motorways, vignette)	3	Cheaper technique	2
Lower implementation and operational costs	2	Definition of zones and boundaries	1
High quality of streets and new infrastructure	2	System must cover all roads into an area	1
Careful design, localisation and installment of the systems	2	Clear concept of objectives and of the use of funds	1
Too little investment from national government	1	Information about good practice	1
More good examples	1	Easy and simple payment modes	1
Economic burdens for car users should not be too high		Clear advantages in steering effects compared to other funding methods	1
Vigorous organisations to promote the idea		Matching boundaries political system with boundaries RUC	1
Involvement in decisions about how to use the revenues		Congestion	
		No conflicts with existing road user charging system	
		Determination of suitable tariff levels	
		Uniform approach in all cities with transparent rules to gain acceptance	

How could public transport be financed under worsening public financial conditions?

How could financing encourage more use of public transport?

<i>Group 1</i>		<i>Group 2</i>	
Responses	Result	Responses	Result
More efficiency with the same money		Transparency	8
More competition gives cheaper systems with the same quality		Clear and stable legislative framework	5
Extra investments to help economic recovery		Long term sustainability	4
More efficient management of the system with fewer providers		Strategy based	4
Differentiated ticketing prices for season tickets according to income level		Incentives and "punishment" according to transport quality	4
Project financing by public-private partnerships		Subsidiarity principle	4
To find the correct regional level for subsidy decisions - the right administrative level		Realistic goals	2
Raising taxes		Transport revenues should be the main source for funding	2
Raising productivity of public transport employees		Encourage private involvement	1
Road user charging reinvested		Independent from current political interests	1
More passengers makes more ticket sales, but depends on prior investment		Setting up standards to transport quality	
More competition, especially for trains (already good competition for buses)			
Increase ticket prices			
Reduce costs			
Higher incomes			
Increase the cost of alternative transport modes (petrol prices), include the costs of external effects of car use			
Making an awareness campaign promoting that pt is positive			

How could financing encourage more use of public transport?

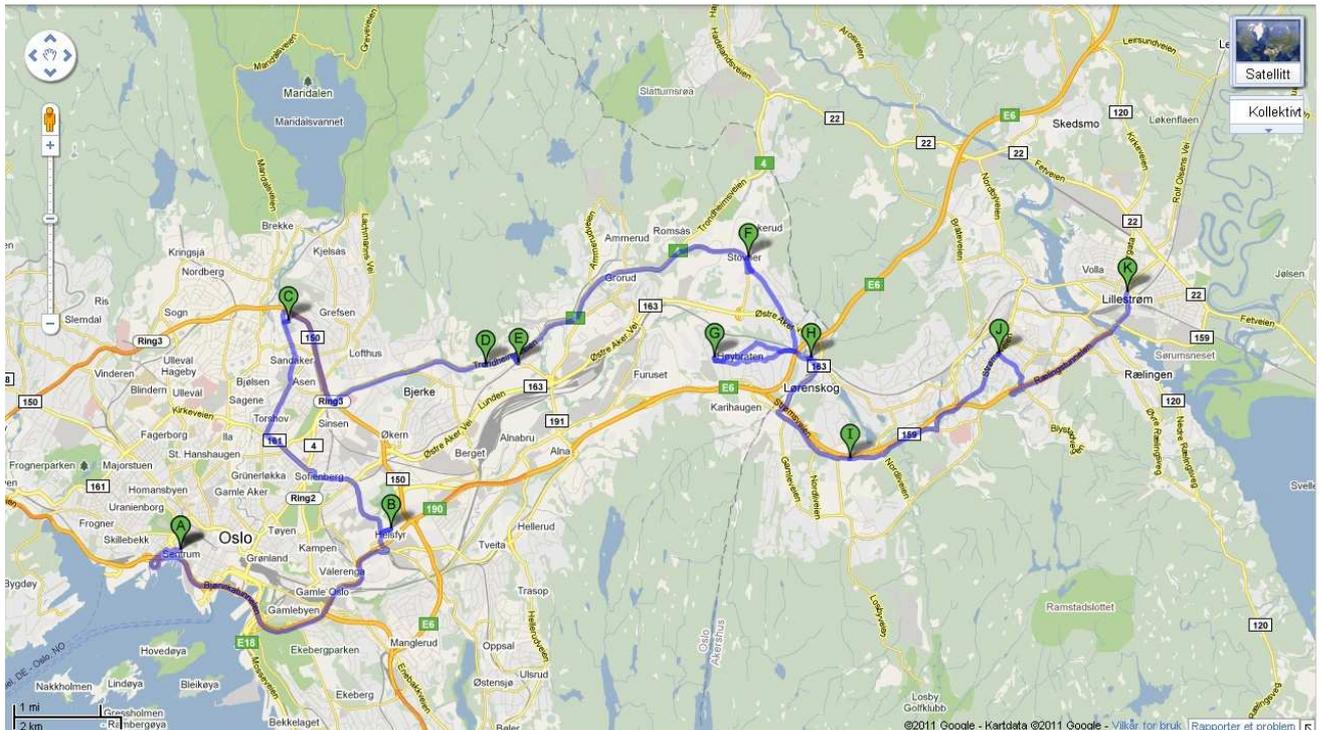
<i>Group 3</i>		<i>Group 4</i>	
Responses	Result	Responses	Result
		Incentives for the providers to attract more passengers	
		Take money from road sector to finance PT	
		Subsidies with quality requirements - bonus and malus systems	
		Introducing competition (division organizer and operator)	
		Using incentives in competition to increase quality	
		Investments in infrastructure: rail, rolling stock to get more ticket revenues	
		Fare policy considering social benefits of PT	
		Integrated account for all transportation (roads, parking, PT etc.)	
		More convenient payment method - optimized, not beforehand	
		Refunding of travel costs for workers, tax policy	

How could more people be encouraged to use public transport?

Group 1		Group 2	
Responses	Result	Responses	Result
Make public transport more attractive for everyone	7	Faster than car	5
Public transport should be made more attractive for car users	6	Make cars more expensive than public transport	4
Public transport should be made more attractive by making private transport more difficult	6	Reliability	4
Demonstrating in special parts of the city how reduced car use can improve life quality	6	Improve frequency	4
Avoid killing by success (PT must be sufficient before introducing restrictions on cars)	6	Intergrated ticket	4
Concentration of future development close to PT, also in the region	5	Short distance	3
The supply must be kept higher than the demand		Make public transport cheaper than cars	3
All modes of transport must be made more effective, including walking and cycling		Realtime information	3
Important to build a "pool" of good practices from different cities		Good quality of fleet	2
PT supply must be sufficient before introducing restrictions on cars		Parking policy	2
Pinpoint bottlenecks		Effective coordination of public transport	2
Reduction of travel time also from the region, in- and outcoming		Increase capacity	1
Encourage obstacles for private cars in areas where PT supply is sufficient and a good alternative		Safety	1
Clear focus on daily commuters		No subsidies for commuting by car	1
Improve the attractiveness of public transport		Investments	
Integrated ticket system		Comfort	
Efficient, reliable and cheap public transport system		Combine tickets with other discounts	
Smart combination of private and public transport, intermodality, p&r		Environmental friendly tecnology	
Good information about the public transport available, marketing		Spatial related price policy	
Value adding at the p&r sites (shops, car cleaning)		Easy to use	
Group 3		Group 4	
Responses	Result	Responses	Result
Information (including smartphones) about the route structure	5	Faster than other means of transport	5
Reliable services	5	Reliability, punctuality and speed: quality of service	4
Increase attractiveness of the service as a whole. Comfort, wifi, user friendliness, comfortable stops	4	Good possibilities to combine public and private means of transport.	4
Accessibility of public transport as a whole - communication - everywhere	4	Public transport made cheaper than private transport	4
Good connections and intermodality, increased competition in travel time vs cars	3	Public transport more comfortable than use of car	2
Simpler ticketing system, or even no tickets!	3	Offer positive side-effects, for example mobility guarantee, bonuses	2
Higher frequencies	3	Higher feeling of personal safety of PT	2
Park and ride at intermodal nodes, parking possibilities, corridors, with park and ride at each end	3	High frequency of PT	2
More simple network with better intersections	2	Cover all of the functional area of a metropolitan area	1
Fast!	2	Public transport should have high experience value	1
Image campaign - positive image of public transport vs cars - attitudes and education	1	Optimized location of stops	1
Realistic timetables, in relation to demand	1	Physical comfort of vehicle: cleanness etc.	1
Better information when traffic problems occur	1	Simple tariff-system	1
Car conditions should be made less competitive (eg P-fees, road user charging)	1	Refunding of commuter ticket	1
Increase capacity of public transport	1	Simple system, good information	1
Economic facilities - discounts for season ticket, Fair and simple tariffs, attractive and competitive		Increasing speed of public transport	
More frequent stops in the central area		Comfortable stops	
Security in relation to crime		Simplified payment methods	
Reduce transport demand - locate services near residential areas		Private transport made more expensive than PT	
		Entrance fee for private cars to certain zones	
		Exclusive acces to certain areas/destinations for PT	
		Increasing awareness of environmental issues: positive user feedback	
		PT transport time included in work time	
		Schock-approach to restrictions	

10 Excursions

10.1 Bus tour Oslo and Akershus



10.1.1 From Oslo centre to the outskirts

The trip started (A) by joining the original road-tunnel that was opened below the city centre in 1991, at the same time that the Toll Ring was opened. The journey continued through the newly opened eastern extension, known as the “Bjørvika tunnel”. This has taken traffic from the harbour front, allowing major redevelopment of mixed housing, office and cultural institutions right next to the city’s biggest public transport interchange.

The journey continued along the Toll-funded highway network of tunnels and bypasses. The new highways relieve housing areas from heavy through-traffic, and improve mobility for commercial transport. At Helsfyr (B) we saw major office development-area at a transport node. This development was facilitated by modernising a metro station and good access to the highway direct to the city centre.

Journeying on to Nydalen (C), the visitors were shown a redevelopment area on the site of a former steel plant. The new development includes housing, higher education and cultural facilities, This has been completed by a single private company with support of the city

planning department. The major infrastructure included expansion of the outer ring-road (Ring-3) and a new metro-ring, linking the formerly outer-city site to the city centre. Both of these transport infrastructures were funded by the Toll-ring.

The bus went from there through the Grorud valley (D, E & F), which is a large city expansion from the period 1950-1990. The highways and rail corridor here were built before the Toll-ring was opened. Extensive areas of modernist housing and Norway's first indoor shopping centres were seen. The bus stopped at Veitvet metro station. This station is undergoing modernisation and has an increased service-frequency, both of which are funded by the Toll-ring.

In the outskirts of Oslo, the bus went through Høybråten (G), one of Oslo's many areas with low-density, detached housing. Areas such as this are difficult to change once they are built, even though professional advice suggests that densification should be achieved. Regular bus services operate but the passenger base is weak.

10.1.2 Excursion for the Lørenskog Municipality

The bus then entered the municipality of Lørenskog in Akershus County. Currently housing 33.000 inhabitants, and growing fast.

A substantial share of Lørenskog's working population commutes to Oslo. Lørenskog station is so close to the Oslo border that it is covered by Oslo ticket prices and is naturally popular among people not living within walking distance from other stations in Lørenskog. Park & ride is developed, but needs to be upgraded. At present there are 30-minute frequencies on weekdays, with a few extra trains in the morning and afternoon rush hours. There are plans for 15-minute frequencies.

The new postal terminal of eastern Norway is located close to Lørenskog station, as well as main roads with bus services. With some 2.000 employees, covering a wide range of competences from high tech to transport, it is one of the main employers in Lørenskog. Just north of the station, Ødegården, one of the main development areas in Lørenskog, is located. Several thousand dwellings, offices, stores and a new school will be developed over the next few years.

Passing the station area, we entered some of Lørenskog's urban sprawl areas. Originally the houses were small with big gardens. Now most of the houses have been rebuilt and made much bigger. The roads are still narrow, and only lately pavements have been built.

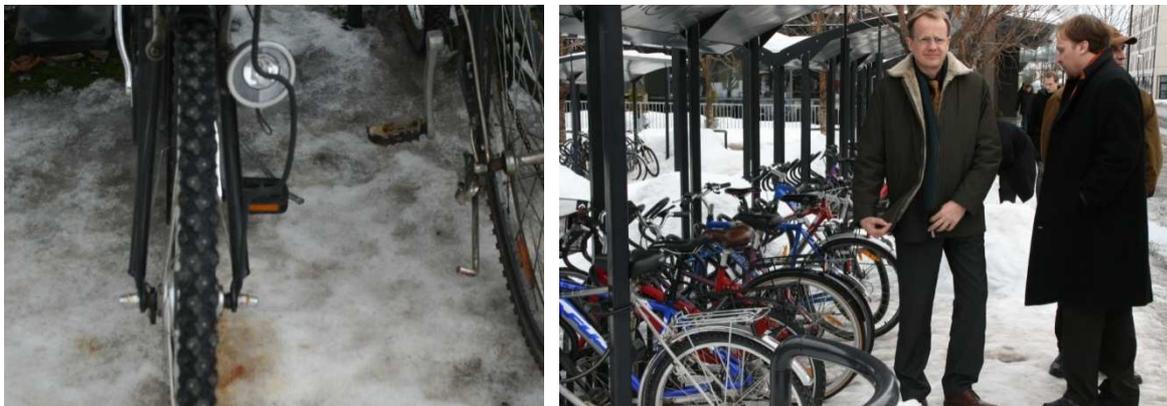
We then drove through parts of the former municipal centre of Lørenskog, called Fjellhamar. Fjellhamar station was recently rebuilt for about €8 million. Fjellhamar provides, among other things, a sports arena, a couple of grocery shops, a restaurant, a quite big factory producing roof materials and the largest primary school in the whole of Norway, with more than 900 pupils.

10.1.3 Excursion for the Skedsmo Municipality

Next on our bus trip was the municipality of Skedsmo, with 48.000 inhabitants. The first place we passed was Strømmen. A new park & ride has been developed by the station and is used also by people from the neighboring municipality. One of Norway's biggest shopping centres, developed at the former steel yard, is located close to the train station. According to some, people working in the shopping centre also park there and thus take up parking spaces intended for train passengers. It is difficult to control, as the park & ride is free of charge.

We then crossed the river Nitelva and entered Lillestrøm, which is the centre of Skedsmo municipality. Whilst Strømmen grew up around sawmills and other factories driven by small hydro plants located along the river, Lillestrøm was mainly developed after new technology made it possible to locate sawmills on flat land. Lots of small wooden houses were built, and Lillestrøm was called the "plank city".

Lillestrøm has experienced major growth over the past decades. Lots of new housing, an exhibition hall, shops and restaurants have been built. A new railway and new road, both in tunnels, were constructed. With the introduction of the Gardermoen railway line, the trip to Oslo through the tunnel only takes 10 minutes. It is much faster to go from Lillestrøm to the city centre of Oslo, than from many of the suburbs of Oslo. A new bus terminal is located next to the upgraded train station. There are park & ride facilities, but prices are rather high. There is also quite a lot of parking for bicycles, which is frequently used even in the winter.



A parking facility for bicycles attracted the interest of visitors from southern Europe, especially the Norwegian speciality of studded winter-tires for bikes!

Lillestrøm is still striving to conserve its original structure of small wooden houses. There are discussions among land owners, politicians, developers and the public on the future of Lillestrøm. Some would like to build high-rise buildings of 10-15 floors. This has created a lot of debate, even the foundation of a new political party – The People's Voice – which got 2 out of 49 representatives in the recent municipal election.

Returning to Oslo, we passed the main hospital in the county of Akershus, with more than 6,000 employees and serving more than 450,000 people. The hospital is served by buses, but this is not considered sufficient. There are plans for extending the subway from Oslo to the hospital, but financing is uncertain at present..

11 Catch Inventories Oslo Workshop – Summary SWOT and a comparison on income sources and costs

11.1 Summary SWOT

This chapter presents the main findings on the inventory search for the Oslo / Akershus workshop as assembled by:

Margaret Andrea Mortensen, Akershus County Council
Tor Bysveen, Akershus County Council

In order to try to identify possible reasons for the MRs' positions on road user charging, the MRs were invited to consider a range of possible contextual issues in the form of a SWOT-analysis (Strengths, Weaknesses, Opportunities, Threats). The MRs have answered depending on their region's current position. In the following we have sought to systematize and categorize the answers.

Firstly, most MRs inform that they have some form of road user charging on national level. Some also have other types of traffic restrictions. This may to some extent explain the MRs' current positions on road user charging:

MRs that have road user charging on national level:

- Berlin-Brandenburg (toll for trucks using motorways)
- Budapest (motorway tolls)
- Ljubljana (yearly, monthly or weekly toll for using the highways)
- Oslo (toll on major roads to cover major investment costs)
- Rome (toll on motorways)
- Vienna (national toll on freeways and urban freeways)

MRs that have other traffic restrictions:

- Berlin-Brandenburg (emission based entry restrictions in many cities)
- Rome (some municipalities have road traffic restrictions in certain zones)

Secondly, we have divided the MRs into four categories according to current positions on road user charging:

1. MRs that have road user charging on metropolitan level

1.1. Oslo/Akershus (toll ring introduced in 1990)

2. MRs that are planning to introduce road user charging

2.1. Gothenburg (toll ring)

2.2. Budapest (obliged to introduce congestion charging through the contract with the European Commission about co-financing the Metro 4 project. Details not yet defined.)

3. MRs that are discussing road user charging

3.1. Ljubljana (first discussions of congestion charge in the city municipality of Ljubljana)

3.2. Rome (discussions about motorway tolls not concluded)

4. MRs that are very unlikely to introduce or discuss road user charging

4.1. Berlin-Brandenburg (discussions on a very general level about road user charging, but strong majority against it)

4.2. Vienna (not for passenger cars)

Systematization of arguments:

There were not given many directions on how to complete the SWOT. In order to get a better overview of the arguments, and thus a better understanding of what types of arguments the different MRs have emphasized, we have divided them into thematic categories. In the subsequent tables we have categorized all the arguments according to the following criteria:

A: Transport

A1: Public transport

A2: Cars

B: Governance/legal issues

C: Economy

C1: Revenue

C2: Costs

D: Data/information

E: Environment/sustainability

X: X factor/path dependency

W: Welfare

1. Partners that have road user charging on metropolitan level

	Oslo/Akershus
Strengths	<p>A1/2: Significant increase in use of public transport while car use is stable or falling.</p> <p>B: Solid political support.</p> <p>B: Legal framework for road user charging.</p> <p>B: One common public transport provider except for trains.</p> <p>C1: High level of revenue.</p> <p>C2: Low running costs.</p> <p>C1/2: Financing both investments and maintenance of roads and public transport.</p>
Weaknesses	<p>B: Toll ring temporary until 2027.</p> <p>B: The municipalities are the land use authorities but have no responsibilities for public transport.</p> <p>C/E: The location of the toll ring is good for creating revenue, not for road pricing as an environmental measure.</p>
Opportunities	<p>C/E: The toll ring infrastructure can be used for road pricing although the location is not optimal.</p> <p>B: The technical system for road charging is in place and flexible, enabling political freedom in future transport policy in the region.</p> <p>C1: The revenue can be used for a wide range of transport projects.</p> <p>E: Environmental consciousness can be further increased.</p>
Threats	<p>B: According to current agreements the toll ring can be removed after 2027.</p> <p>B: Potential lack of support in the outer parts of the region due to low visibility of benefits.</p>

2. Partners that are planning to introduce road user charging

	Budapest	Gothenburg
Strengths	<p>A: Public transport supply (quantity – quite good network coverage and frequencies)</p> <p>B: Political support seems to be more or less stable (idea more or less supported by the 3 strongest fractions of the Budapest City Council – out of 4)</p> <p>B: Idea seems to be supported by the national government</p> <p>C: Clear intentions to use revenues within the transport system</p>	<p>A: Public transport user:</p> <ul style="list-style-type: none"> - reduced congestion - increased capacity <p>A: Public transport owner:</p> <ul style="list-style-type: none"> - change of attitude. From economy oriented to goal fulfillment orientation - increased demand and market share <p>A: Car user:</p> <ul style="list-style-type: none"> - reduced congestion - reduced travel time <p>B: Politics</p> <ul style="list-style-type: none"> - political consensus for implementation of congestion charges <p>B: Stakeholder:</p> <ul style="list-style-type: none"> - consensus on regional goals among stakeholders <p>C: - strict use of the revenue for specified projects</p> <ul style="list-style-type: none"> - creates new financial opportunities - co-financing infrastructure creates collaboration between new stakeholders <p>E: Public opinion</p> <ul style="list-style-type: none"> - Increased focus on environmental issues - Environmental benefits (reduced pollution, cleaner air) <p>W: Costs</p> <ul style="list-style-type: none"> - Social benefits exceed social costs <p>W: Car user</p> <ul style="list-style-type: none"> - improved traffic safety
Weaknesses	<p>A: Usually car-based point of view of decision-makers</p> <p>A: Public transport supply (quality – bad road and track conditions, very old running fleet)</p> <p>A: Outdated public transport fare system</p> <p>B: Fragmented government system (City and Districts share ownership and</p>	<p>B: Objectives and goals are not properly communicated between the stakeholders</p> <p>C: Costs:</p> <ul style="list-style-type: none"> Costs money high implementation and maintenance costs <p>D: Lack of correct information</p>

	<p>competences)</p> <p>B: No legal framework for urban road user charging (yet)</p> <p>B: Very low public trust in politics and public sector due to widespread corruption and lack of transparency</p> <p>D: Lack of up-to-date information and data on transport situation and trends</p>	
Opportunities	<p>C1: Contractual obligations connected to the EU-co-financing of the Metro 4 project</p> <p>C1: EU-co-financing opportunities for necessary public transport improvement projects</p> <p>C2: Experiences with motorway tolling (including ANPR)</p> <p>E: Media coverage of air pollution and eventual smog alarms for some years</p> <p>E: Emerging cycling culture (Critical Mass)</p> <p>E: Environmental consciousness emerging slowly, but steadily</p>	<p>A1: Public transport user: - better public transport (faster, more frequent and reliable)</p> <p>A1: Public transport owner: - provide better public transport (increased frequency, punctuality etc.)</p> <p>A2: Car user: - opens up for the opportunity to use alternative transport modes - eye-opener for seeing the social costs of car using</p> <p>B: Public opinion: - create a dialogue and transparency during the process of implementation</p> <p>B: Costs: - creation of a new arena - who is responsible for financing future infrastructure projects?</p> <p>B: Politics: - political consensus contributes to regional development (how to create a bigger birthday cake!)</p> <p>B: Legal framework: - opportunity to change congestion charge (national tax) to local access fee</p>
Threats	<p>A1: Low public esteem of the public transport company (BKV)</p>	<p>A1: Public transport user: - congested public transport usage - less services inside the zone - relocation of</p>

	<p>A2: Low public esteem of the parking fee system (mostly private concessors)</p> <p>B: “National tradition” of avoiding rules creatively (extensive use of disabled badges, foreign registration of cars – in Slovakia, Germany – etc.)</p> <p>C2: Implementation cost pressure by the dense urban structure and many small roads</p> <p>C2: Operating cost pressure by high share of foreign-registered cars (transit and “tax-optimising” local)</p> <p>W: Car as a status symbol – maybe not as strongly as in the 90’s, but still low willingness to change modes (Hungarians are the less willing to give up car-use in the EU)</p>	<p>services outside the zone</p> <p>A1: Public transport owner: - inability to meet the customers’ demands (K2020)</p> <p>B: Public opinion: - negative media response - different attitudes towards congestion charges</p> <p>B: - increased bureaucracy between stakeholders</p> <p>Politics: B: - growth of political parties that object to congestion charges B: - regional split in political consensus</p> <p>Costs D: - lack of strategy handling knowledge of individual social costs</p> <p>C1/2: - revenues might not cover actual project costs</p>
--	--	---

3. Partners that are discussing road user charging

	Ljubljana	Rome
Strengths	A: Change of mobility patterns.	A2: Streamlining of traffic flows;

	<p>A: Relief of congestion in city center. C1: Financial revenues. E: Reduction of pollution and noise in the city. W: Improved safety.</p>	<p>A1: Enhanced efficiency of local public transport C1/2: Reinvestment of resources obtained through road-user charging within the same sector; E: Increased environmental sustainability (reduced travel time, less vehicles)</p>
Weaknesses	<p>B: It needs strong public support and it takes time. C2: High implementing costs. W: Some of the shops and other businesses could lose part of the customers.</p>	<p>X: The amount of tariff could not result in a substantive shift from private means of transports to public transport; X: Possible congestion of roads alternative to toll roads.</p>
Opportunities	<p>A: Changing travel patterns. C1: Revenues could be used for improvement of public passenger transport. C1: Economic growth. D: The future highways road charging satellite technology could be used in the city as well. E: Protection of the needs of future generations. W: Enhanced livability and urban quality. W: Increased equity and greater social inclusion.</p>	
Threats	<p>B: At the moment there is no legal framework to introduce the system in the city. B: People do not trust in fair decision process and proper use of the revenues. D: Problems with data protection. W: Social exclusion of the people who could not pay the charge, poor accessibility and</p>	<p>A1: Insufficient exchange parkings; A1: Congestion of local public transport; B: Appeals to the Regional Administrative Court; W: Strikes of commuters/users of road sections subject to charging.</p>

	<p>affordability for people of specific needs and for special population groups.</p> <p>W: Economic decline of the city, especially if there is a lack of alternative means of transport.</p>	<p>W: Delocalization outside charged circuits of commercial, tertiary and administrative sectors;</p>
--	---	---

4. Partners that are very unlikely to introduce or discuss road user charging

	Berlin-Brandenburg	Vienna
Strengths	<p>A1: Population would get a stronger motivation to use public transport.</p> <p>C1: Financial income for the region through the user charge would allow to make public transport more attractive by investing in new services and infrastructure.</p> <p>E: Motivation for more effective land use planning; to concentrate land use along the railway axes.</p>	<p>A1: Comparatively good PT service (covered area, frequency of service, quality of service)</p> <p>A1: PT has high share in modal split (VNA 35% of trips)</p> <p>A2: Comparatively little severe congestion (only isolated traffic jams during rush hour)</p> <p>A2: Vienna: lowest car ownership in Austria (~0,4 c/c)</p> <p>A2: Good experiences with parking management</p> <p>A2: Political support for parking fees/zoned parking</p> <p>A2: Public “tolerance” of parking management</p> <p>B: Increase of cooperation on professional level between planning administrations in MR</p> <p>C1 (W:) High per capita GDP (> ability to pay)</p>
Weaknesses	<p>B: No acceptance among car users and most politicians.</p>	<p>A2: Avoidance of parking management (private/company garages)</p> <p>A2: Low cost of parking tickets (permits).</p> <p>B: Complex institutional structures / distribution of competence</p> <p>B: Public acceptance of RCU is currently poor</p>

		<p>(public enquete)</p> <p>B Political cooperation on traffic issues is difficult between stakeholders in the region</p> <p>B: Unclear legal framework for road user charging (RUC)</p> <p>C1: Low cost recovery: cars on municipal roads (23%).</p> <p>E: Transgression of particulate matter limits (both the strict national and less strict European limits)</p>
Opportunities	<p>A: Public transport users would be rewarded compared to car users.</p> <p>B: A user charge would be a strong symbol.</p> <p>E: Car users would get a feedback on the environmental impact.</p> <p>W: In the German context Berlin and Brandenburg are rather poor states. Car users would notice such a measure.</p>	<p>B: European policy goals (e.g. Europe 2020)</p> <p>D: Development of technology</p> <p>D: EC study on access restriction schemes</p> <p>E: Increasing societal preoccupation with environmental issues</p> <p>W: Long term trend that urban youth focuses more on status symbols other than cars</p>
Threats	<p>W: As incomes (compared to other German states) are rather low in Berlin-Brandenburg it would be perceived as a strong cut of mobility.</p> <p>W: As parts of Brandenburg are very rural and economically weak, inhabitants have to commute to Berlin. Due to poor public transport services in rural areas, some commuters depend on the private car. A change to public transport at the borders of the payment zone would lead to longer commuting duration.</p>	<p>B: Uncertainty about developments of European legislation (e.g. regarding Eurovignette, emission standards)</p> <p>B: Possible privacy issues, depending on charging system</p> <p>C2: Cost of facilitating RUC (implementation and operation)</p> <p>D: Technical problems to facilitate RUC</p>

Appendix (SWOT-tables)
Berlin-Brandenburg

Road user charging

<p>Strengths</p> <ul style="list-style-type: none"> - Population would get a stronger motivation to use public transport. - Financial income for the region through the user charge would allow to make public transport more attractive by investing in new services and infrastructure. - Motivation for more effective land use planning; to concentrate land use along the railway axes. 	<p>Weaknesses</p> <ul style="list-style-type: none"> - No acceptance among car users and most politicians.
<p>Opportunities</p> <ul style="list-style-type: none"> - In the German context Berlin and Brandenburg are rather poor states. - Car users would notice such a measure. - A user charge would be a strong symbol. - Car users would get a feedback on the environmental impact. - Public transport users would be rewarded compared to car users. 	<p>Threats</p> <ul style="list-style-type: none"> - As incomes (compared to other German states) are rather low in Berlin-Brandenburg it would be perceived as a strong cut of mobility. - As parts of Brandenburg are very rural and economically weak, inhabitants have to commute to Berlin. Due to poor public transport services in rural areas, some commuters depend on the private car. A change to public transport at the borders of the payment zone would lead to longer commuting duration.

Environmental zones

<p>Strengths</p> <ul style="list-style-type: none"> - Visible activity for improving residential area. - Incentive for modernisation of vehicles. - Decentralised system – allows adaptation to specific conditions in every city. 	<p>Weaknesses</p> <ul style="list-style-type: none"> - Results are difficult to measure. - Costs aren't matched by revenues. - Difficult to control. - Decentralised system. Different rules in different cities.
<p>Opportunities</p> <ul style="list-style-type: none"> - Definition of different zones. - Introduction of different entry restrictions depending on zone and development of vehicle numbers. - Broad application spectrum. 	<p>Threats</p>

Budapest

<p>Strengths</p> <ul style="list-style-type: none"> - public transport supply (quantity – quite good network coverage and frequencies) - political support seems to be more or less stable (idea more or less supported by the 3 strongest fractions of the Budapest City Council – out of 4) - clear intentions to use revenues within the transport system - idea seems to be supported by the national government 	<p>Weaknesses</p> <ul style="list-style-type: none"> - fragmented government system (City and Districts share ownership and competences) - no legal framework for urban road user charging (yet) - public transport supply (quality – bad road and track conditions, very old running fleet) - outdated public transport fare system - very low public trust in politics and public sector due to widespread corruption and lack of transparency - lack of up-to-date information and data on transport situation and trends - usually car-based point of view of decision-makers
<p>Opportunities</p> <ul style="list-style-type: none"> - environmental consciousness emerging slowly, but steadily - contractual obligations connected to the EU-co-financing of the Metro 4 project - experiences with motorway tolling (including ANPR) - EU-co-financing opportunities for necessary public transport improvement projects - media coverage of air pollution and eventual smog alarms for some years - emerging cycling culture (Critical Mass) 	<p>Threats</p> <ul style="list-style-type: none"> - car as a status symbol – maybe not as strongly as in the 90's, but still - low willingness to change modes (Hungarians are the less willing to give up car-use in the EU) - low public esteem of the public transport company (BKV) and the parking fee system (mostly private concessors) - “national tradition” of avoiding rules creatively (extensive use of disabled badges, foreign registration of cars – in Slovakia, Germany – etc.) - implementation cost pressure by the dense urban structure and many small roads - operating cost pressure by high share of foreign-registered cars (transit and “tax-optimising” local)

Gothenburg

<p>Strengths</p> <p>Attitudes: Individual level</p> <p>Public transport user:</p> <ul style="list-style-type: none"> - reduced congestion - increased capacity <p>Car user:</p> <ul style="list-style-type: none"> - reduced congestion - reduced travel time - improved traffic safety <p>Public transport owner:</p> <ul style="list-style-type: none"> - change of attitude. From economy oriented to goal fulfillment orientation - increased demand and market share <p>Stakeholders:</p> <ul style="list-style-type: none"> - consensus on regional goals among stakeholders <p>Public opinion:</p> <ul style="list-style-type: none"> - increased focus on environmental issues - environmental benefits (reduced pollution, cleaner air) <p>Costs:</p> <ul style="list-style-type: none"> - strict use of the revenue for specified projects - creates new financial opportunities - co-financing infrastructure creates collaboration between new stakeholders - social benefits exceeds social costs <p>Politics:</p> <ul style="list-style-type: none"> - political consensus for an implementation of congestion charges 	<p>Weaknesses</p> <p>Attitudes: Individual level</p> <p>Car user:</p> <ul style="list-style-type: none"> - costs money <p>Public opinion:</p> <ul style="list-style-type: none"> - lack of correct information <p>Stakeholders:</p> <ul style="list-style-type: none"> - objectives and goals are not properly communicated between the stakeholders <p>Costs:</p> <ul style="list-style-type: none"> - high implementation and maintenance costs
--	--

Opportunities	Threats
<p>Attitudes Individual level:</p> <p>Public transport user:</p> <ul style="list-style-type: none"> - better public transport (faster, more frequent and reliable) <p>Car user:</p> <ul style="list-style-type: none"> - opens up for the opportunity to use alternative transport modes - eye-opener for seeing the social costs of car using <p>Public transport owner:</p> <ul style="list-style-type: none"> - provide better public transport (increased frequency, punctuality etc.) <p>Public opinion:</p> <ul style="list-style-type: none"> - create a dialogue and transparency during the process of implementation <p>Costs:</p> <ul style="list-style-type: none"> - creation of a new arena - who is responsible for financing future infrastructure projects? <p>Politics:</p> <ul style="list-style-type: none"> - political consensus contributes to regional development (how to create a bigger birthday cake!) <p>Legal framework:</p> <ul style="list-style-type: none"> - opportunity to change congestion charge (national tax) to local access fee 	<p>Attitudes Individual level:</p> <p>Public transport user:</p> <ul style="list-style-type: none"> - congested public transport usage - less services inside the zone - relocation of services outside the zone <p>Public transport owner:</p> <ul style="list-style-type: none"> - inability to meet the customers' demands (K2020) <p>Public opinion:</p> <ul style="list-style-type: none"> - negative media response - different attitudes towards congestion charges <p>Costs</p> <ul style="list-style-type: none"> - lack of strategy handling knowledge of individual social costs - increased bureaucracy between stakeholders - revenues might not cover actual project costs <p>Politics:</p> <ul style="list-style-type: none"> - growth of political parties that object to congestion charges - revenues might not cover actual project costs - regional split in political consensus

Ljubljana

<p>Strengths</p> <ul style="list-style-type: none"> - Change of mobility patterns. - Relief of congestion in city center. - Reduction of pollution and noise in the city. - Financial revenues. - Improved safety. 	<p>Weaknesses</p> <ul style="list-style-type: none"> - High implementing costs. - Some of the shops and other businesses could lose part of the customers. - It needs strong public support and it takes time.
<p>Opportunities</p> <ul style="list-style-type: none"> - Revenues could be used for improvement of public passenger transport. - The future highways road charging satellite technology could be used in the city as well. - Changing travel patterns. - Enhanced livability and urban quality. - Increased equity and greater social inclusion. - Protection of the needs of future generations. - Economic growth. 	<p>Threats</p> <ul style="list-style-type: none"> - At the moment there is no legal framework to introduce the system in the city. - People do not trust in fair decision process and proper use of the revenues. - Social exclusion of the people who could not pay the charge, poor accessibility and affordability for people of specific needs and for special population groups. - Problems with data protection. - Economic decline of the city, especially if there is a lack of alternative means of transport.

Oslo

<p>Strengths</p> <ul style="list-style-type: none"> - High level of revenue. Financing road and public transport infrastructure, maintenance of public transport infrastructure, contribution to operation costs rolling stocks. - Well developed public transport for trains, busses, metro and boats. - Solid political support, a 20 years written agreement can use money from the toll-road both on road development and investments and running of public transport. - Public transport, except trains, in O + A is organized in one common organization. - Legal framework for road charging. - Rather modernized fleet. - New electronic ticket system has been introduced. - A 5.5% increase in public transport in 2010. - Very low running costs for the road charging system. 	<p>Weaknesses</p> <ul style="list-style-type: none"> - The municipalities, who have the authority for land use, have no responsibilities for public transport. - The train service runs separately, but there are discussions. - The location of the toll ring is good for high revenue, not for road pricing as an environmental measure. - Temporary plan (2027).
<p>Opportunities</p> <ul style="list-style-type: none"> - Environmental consciousness is developed. - The technical system is developed, and may be used for road pricing, given the political decisions. - Emerging cycling culture to be stimulated by new tracks. 	<p>Threats</p> <ul style="list-style-type: none"> - Too slow progress dealing with environmental challenges, especially CO2. - Rather high use of cars, especially in the outskirts of Akershus. - Temporary plan (2027), financing not only infrastructure, but also maintenance and operation. What happens in 2027?

Rome

<p>Strengths</p> <ul style="list-style-type: none"> - Streamlining of traffic flows. - Enhanced efficiency of local public transport. - Reinvestment of resources obtained through road-user charging within the same sector. - Increased environmental sustainability (reduced travel time, less vehicles). 	<p>Weaknesses</p> <ul style="list-style-type: none"> - The amount of tariff could not result in a substantive shift from private means of transports to public transport. - Possible congestion of roads alternative to toll roads.
<p>Opportunities</p> <ul style="list-style-type: none"> - Reduced travel time. - Reduced pollutant emissions. - Less damage to road surface. 	<p>Threats</p> <ul style="list-style-type: none"> - Delocalization outside charged circuits of commercial, tertiary and administrative sectors. - Insufficient exchange parking. - Congestion of local public transport. - Appeals to the Regional Administrative Court. - Strikes of commuters/users of road sections subject to charging.

Vienna

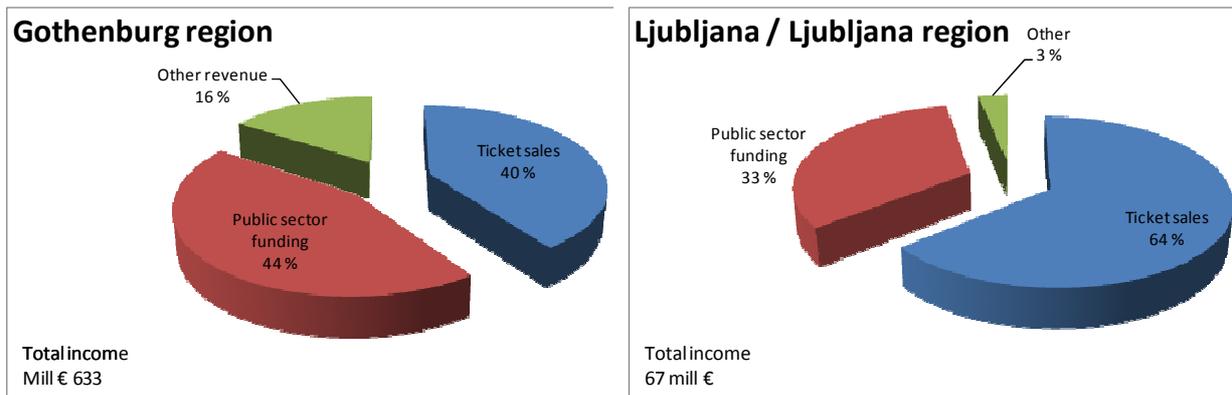
<p>Strengths</p> <ul style="list-style-type: none"> - Comparatively little severe congestion (only isolated traffic jams during rush hour) - Vienna: lowest car ownership in Austria (~0,4 c/c) - Comparatively good PT service (covered area, frequency of service, quality of service) - PT has high share in modal split (VNA 35% of trips) - Good experiences with parking management - Political support for parking fees/zoned parking - Public “tolerance” of parking management - Increase of cooperation on professional level between planning administrations in MR - High per capita GDP (> ability to pay) 	<p>Weaknesses</p> <ul style="list-style-type: none"> - Complex institutional structures / distribution of competence - Public acceptance of RCU is currently poor (public enquete) - Political cooperation on traffic issues is difficult between stakeholders in the region - Unclear legal framework for road user charging (RUC) - Low cost recovery: cars on municipal roads (23%). - Avoidance of parking management (private/company garages) - Low cost of parking tickets (permits). - Transgression of particulate matter limits (both the strict national and less strict European limits)
<p>Opportunities</p> <ul style="list-style-type: none"> - Increasing societal preoccupation with environmental issues - Development of technology - EC study on access restriction schemes - European policy goals (e.g. Europe 2020) - Long term trend that urban youth focuses more on status symbols other than cars 	<p>Threats</p> <ul style="list-style-type: none"> - Uncertainty about developments of European legislation (e.g. regarding Eurovignette, emission standards) - Technical problems to facilitate RUC - Cost of facilitating RUC (implementation and operation) - Possible privacy issues, depending on charging system

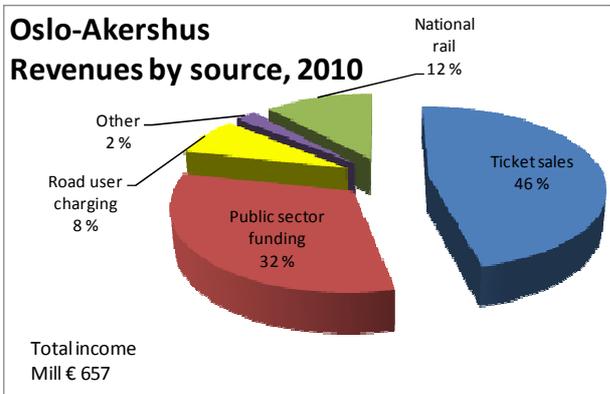
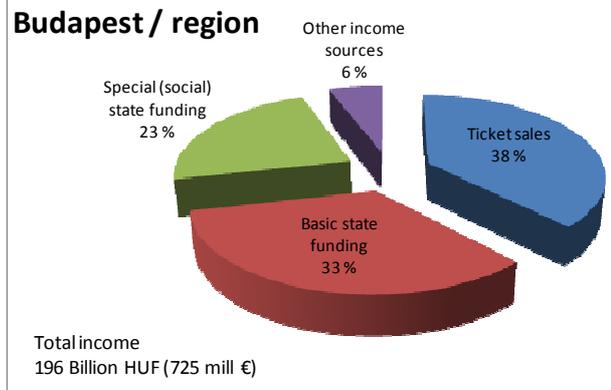
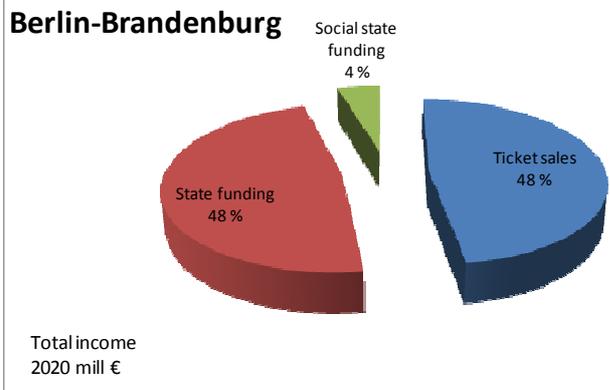
11.2 Comparison – sources of income and costs

Comparison between the partners' metropolitan regional financing structure is challenging. Each metropolitan region has developed its own unique network of transport service companies, funding sources, ownership-patterns and levels of service. This reflects both the variety of arrangements between politically independent cities and their surrounding regions, and the financial independence of transport companies that provide competing and supplementary services.

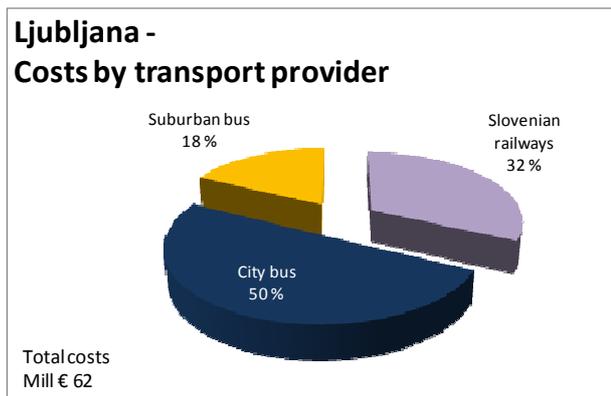
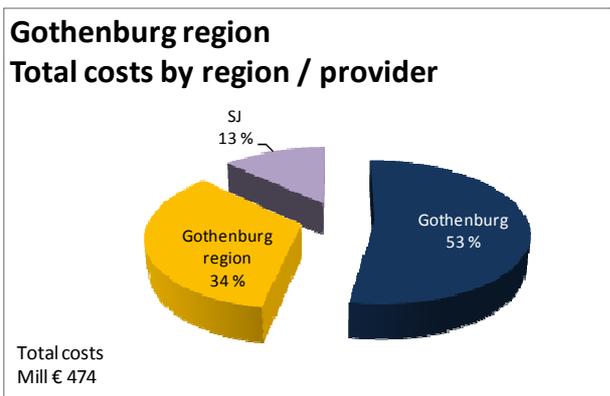
For the purpose of comparison, key aspects of the financial structure are presented below, based on the inventory data that has been provided by partners. These summary figures illustrate certain similarities in relative scales for all the metropolitan regions. A more detailed picture of the financial situation in each region is given in the inventory responses from each metropolitan region.

Ticket sales, subsidies or other revenues?

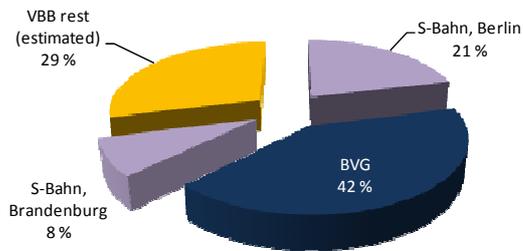




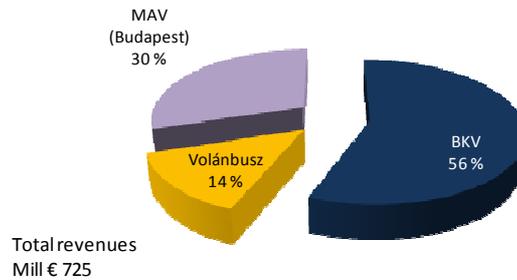
City, Regional or National resources?



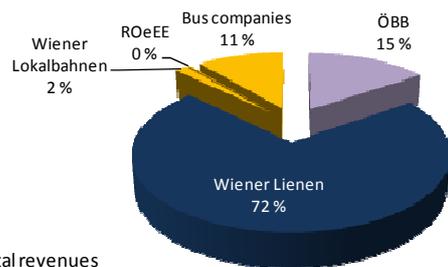
Berlin-Brandenburg Revenues by transport provider



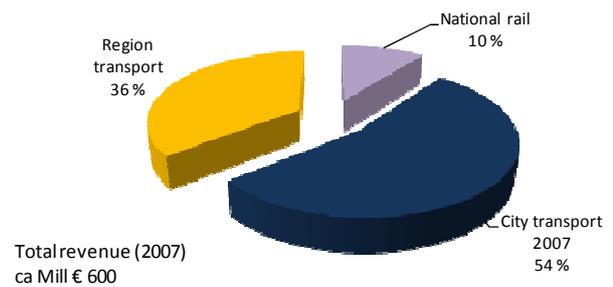
Budapest - /region Revenues by transport provider



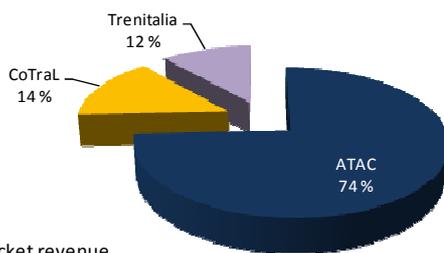
Vienna & Lower Austria Revenues by transport company



Oslo & Akershus Revenue by service provider, 2007

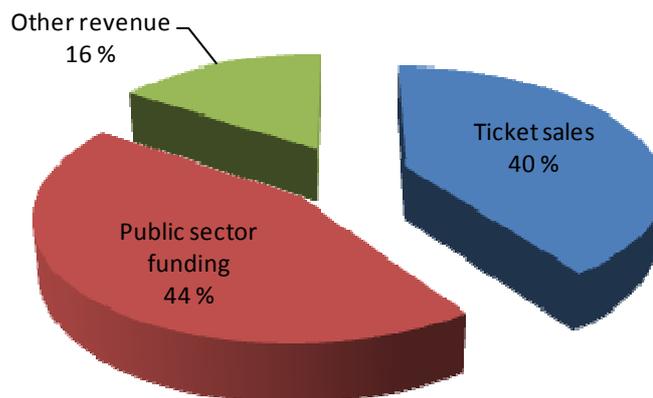


Rome/Lazio Ticket revenues by service provider



Gothenburg

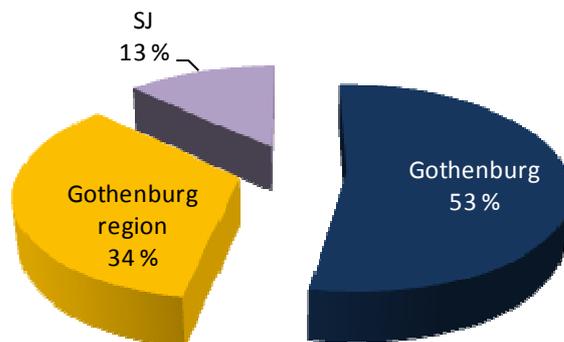
Gothenburg region



Total income
Mill € 633

Gothenburg region

Total costs by region / provider

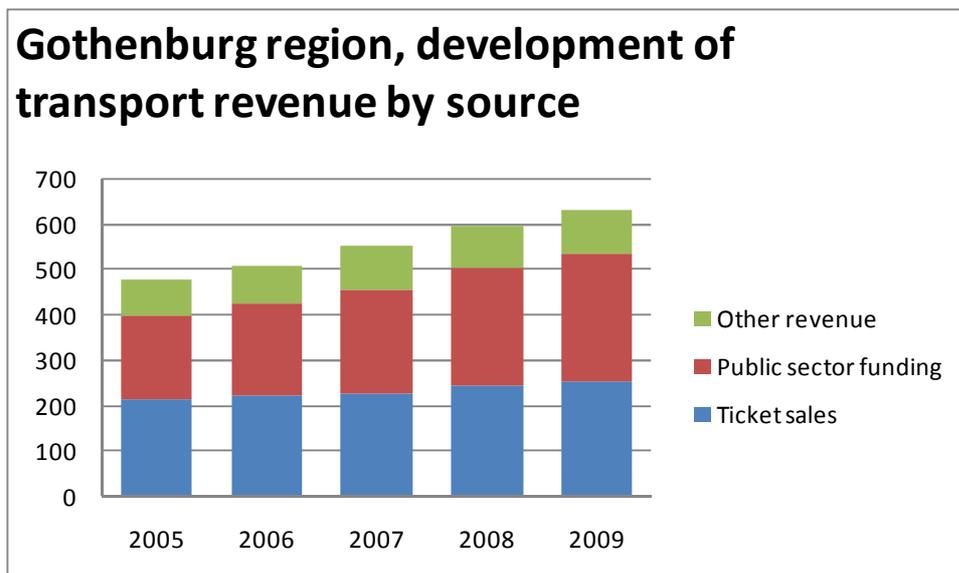
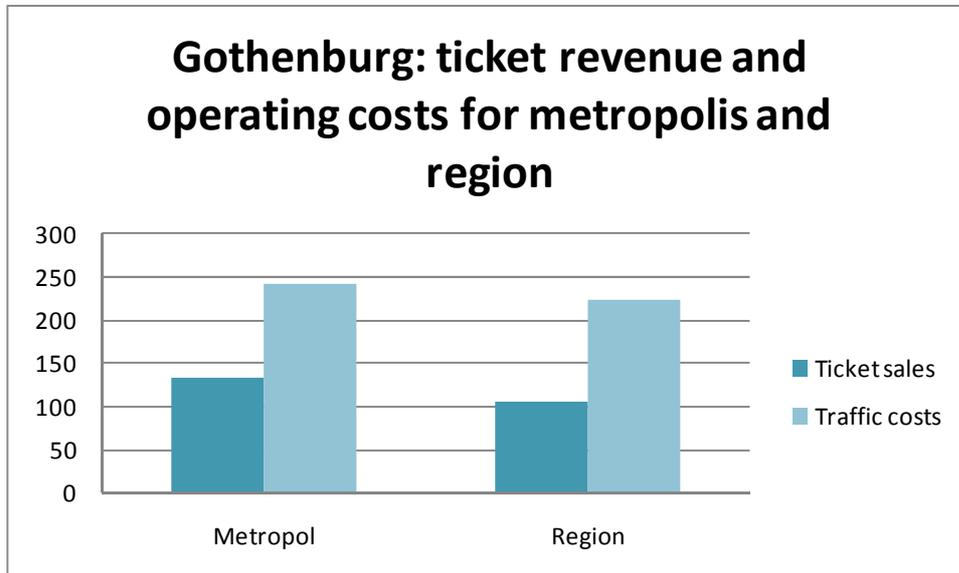


Total costs
Mill € 474

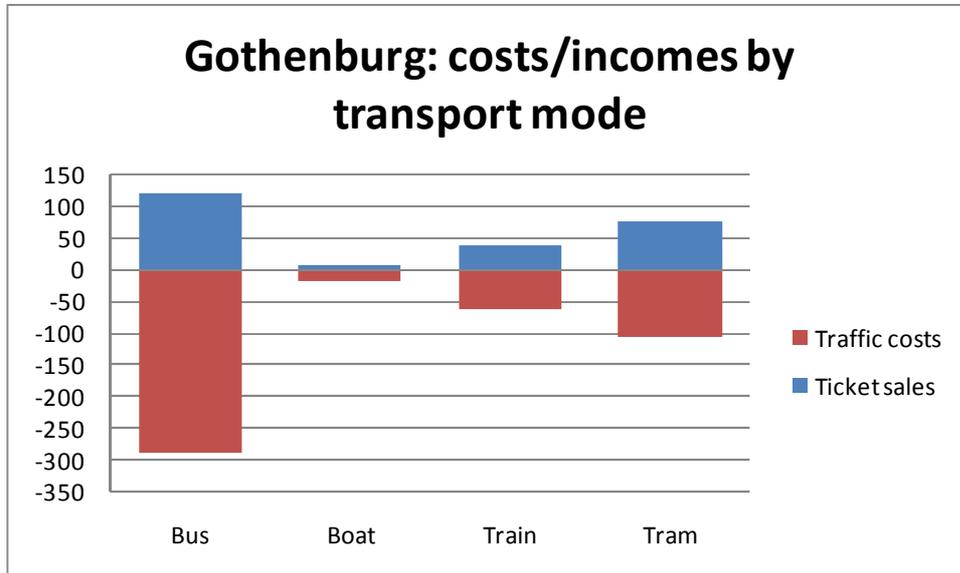
The figure above is estimated on the basis of statistics from the inventory, and the following assumptions:

- All tram services are within the metropol
- All train and boat transport serves the region outside the metropol

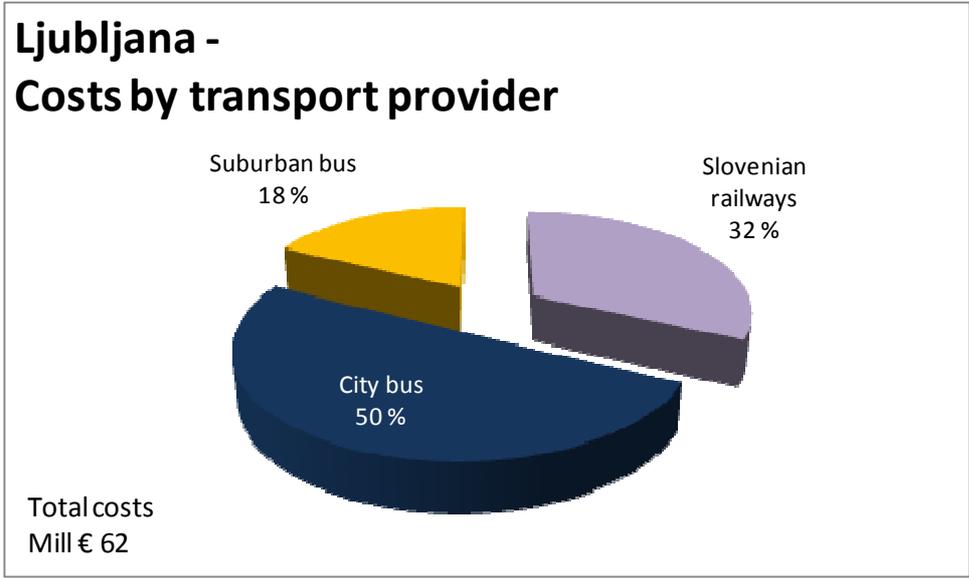
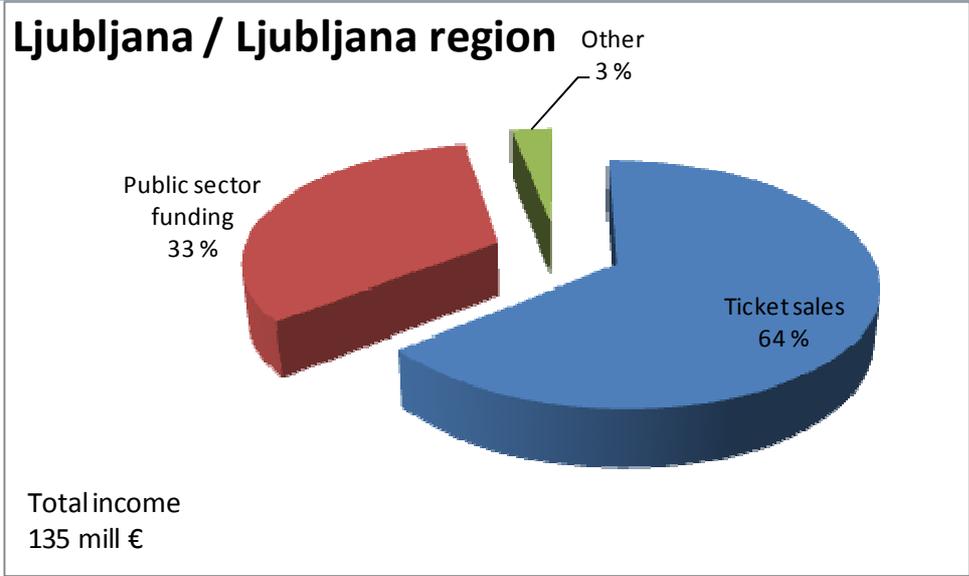
- Bus services are split 50/50 between the city and the outlying region

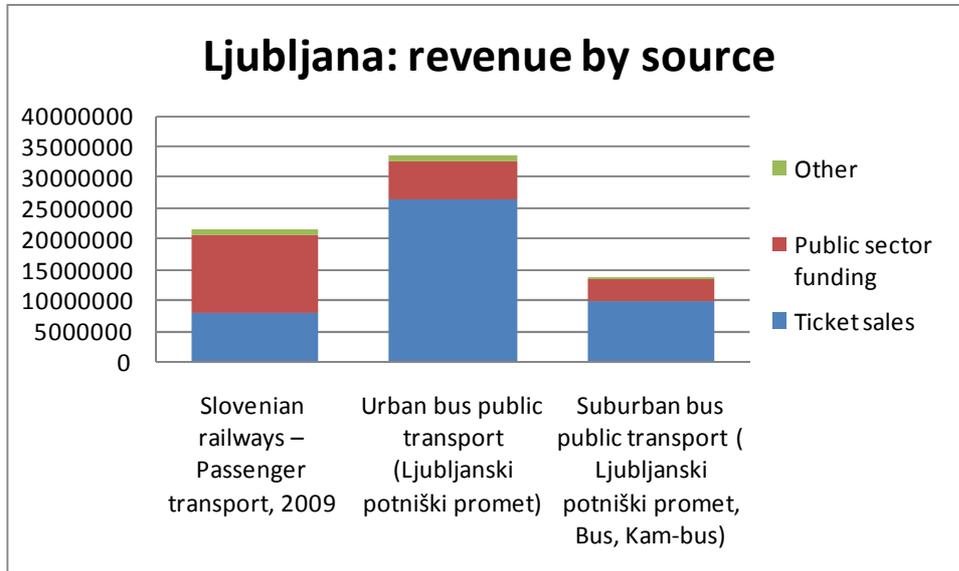


Public sector funding has increased by 50 % between 2005 and 2009, whereas revenue from ticket sales and other sources increased by only 20 % over the same period.

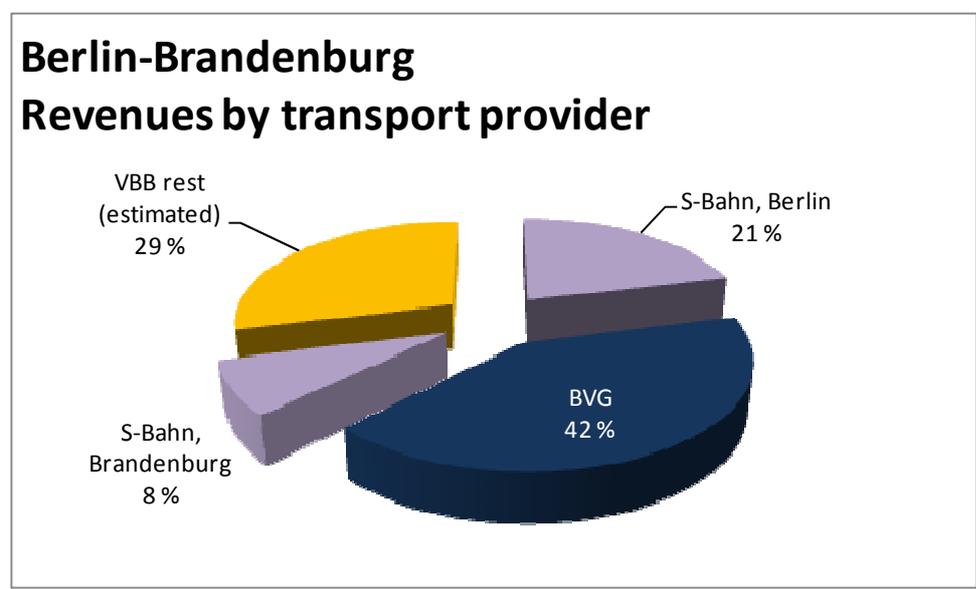
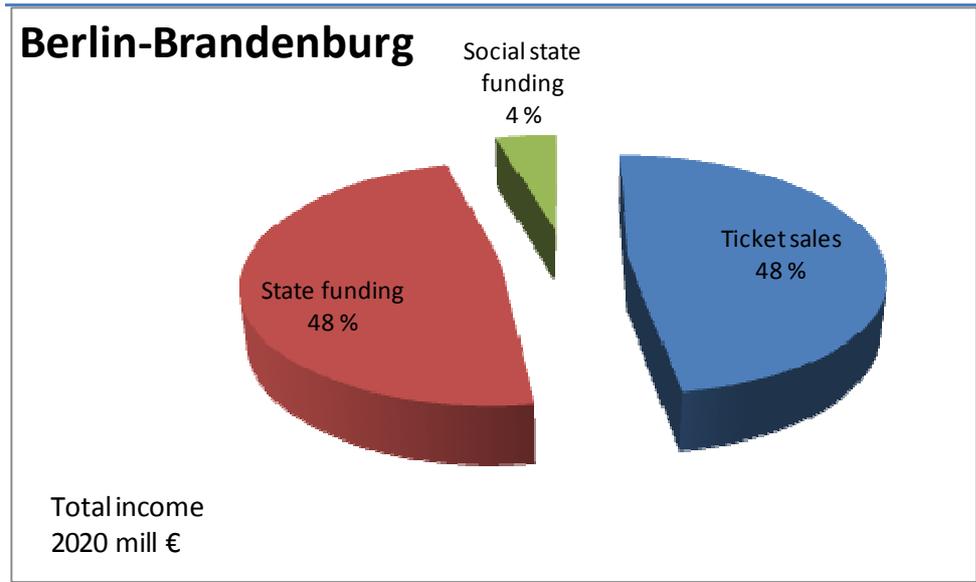


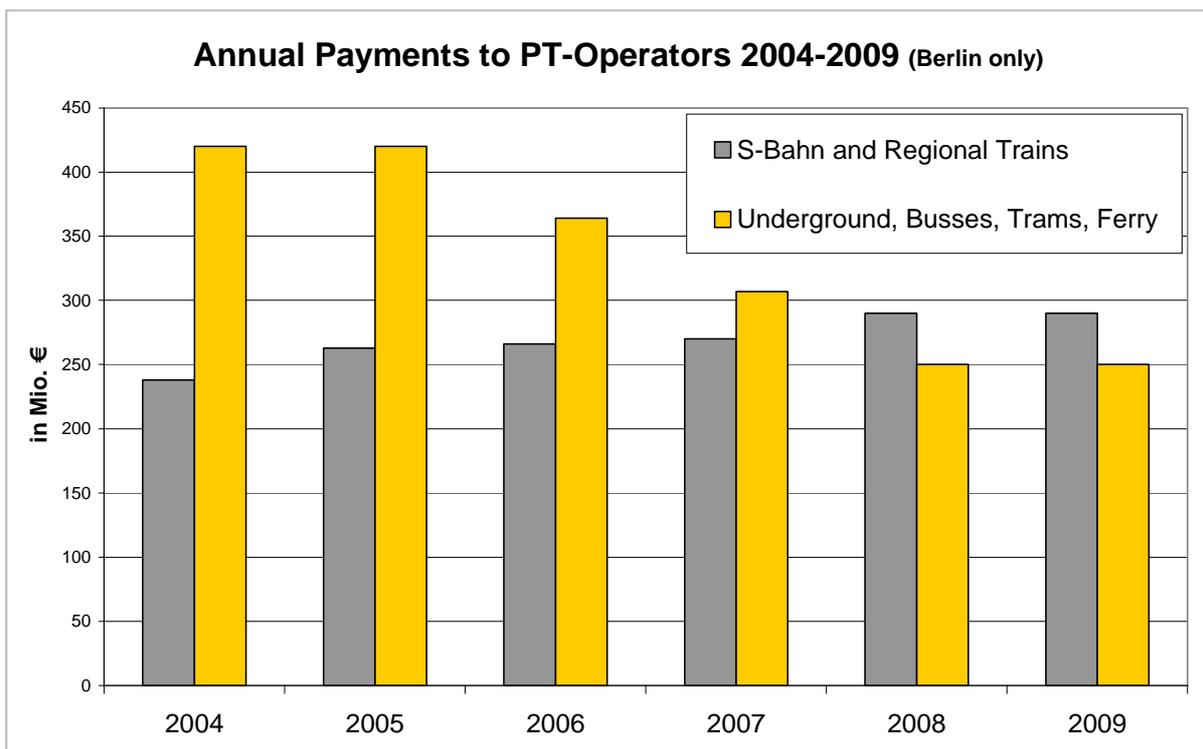
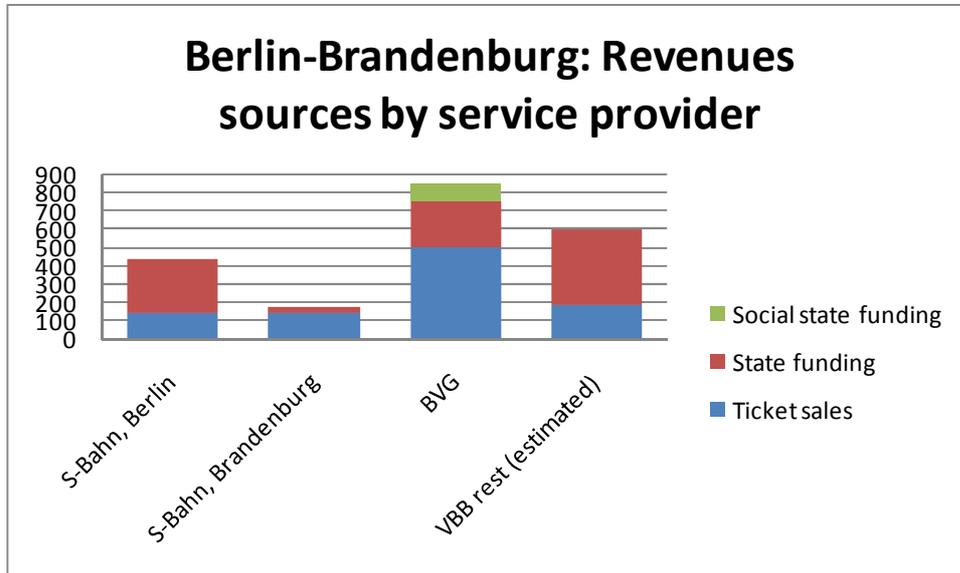
Ljubljana





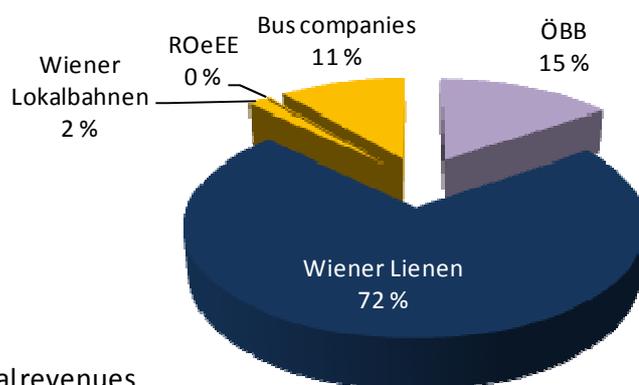
Berlin-Brandenburg





Vienna & Lower Austria

Vienna & Lower Austria Revenues by transport company

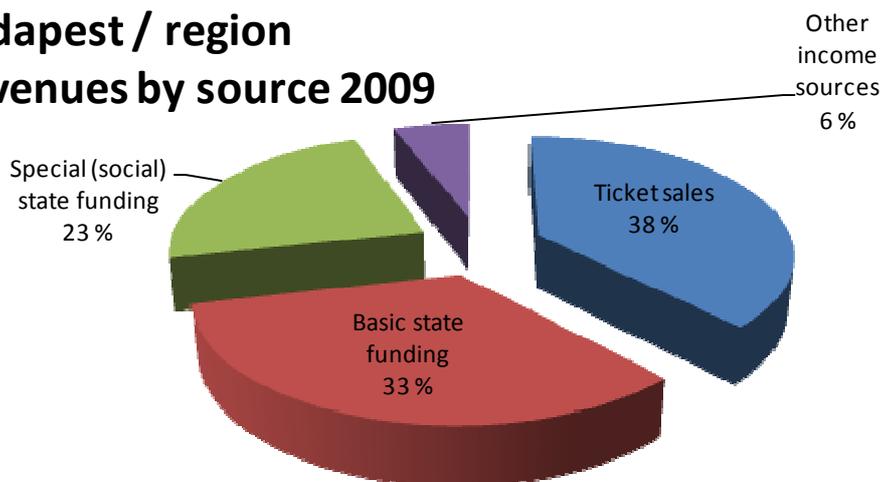


Total revenues
Mill € 542

Budapest – Budapest Region

Budapest / region

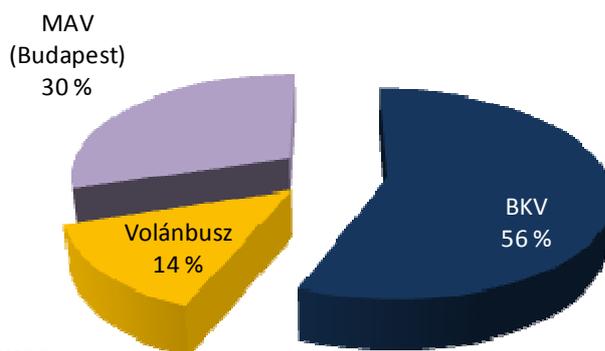
Revenues by source 2009



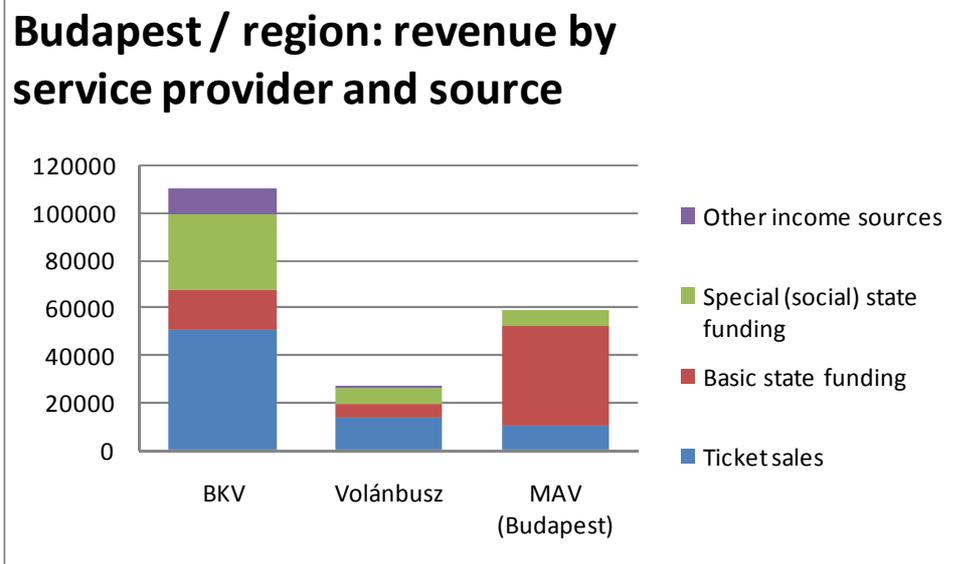
Total income
196 Billion HUF (725 mill €)

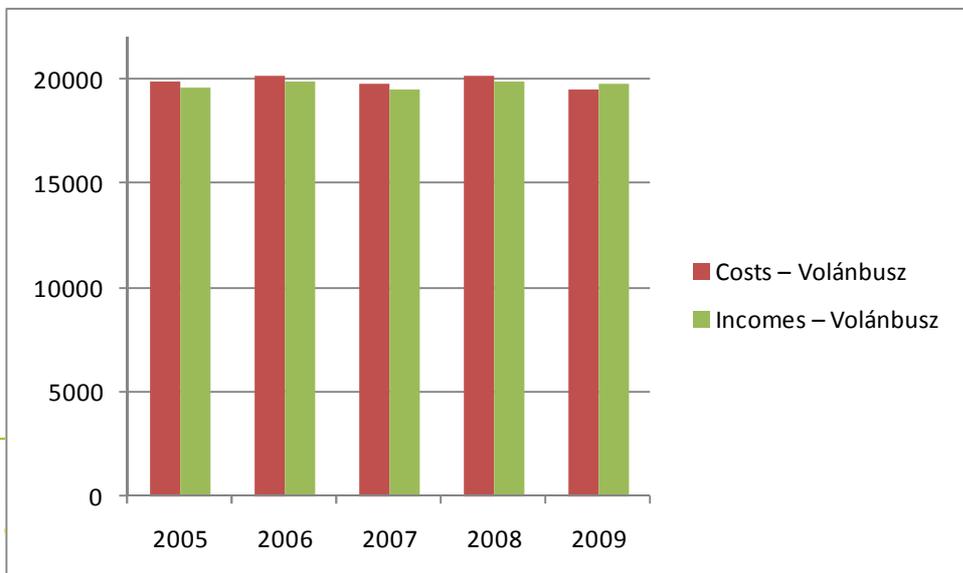
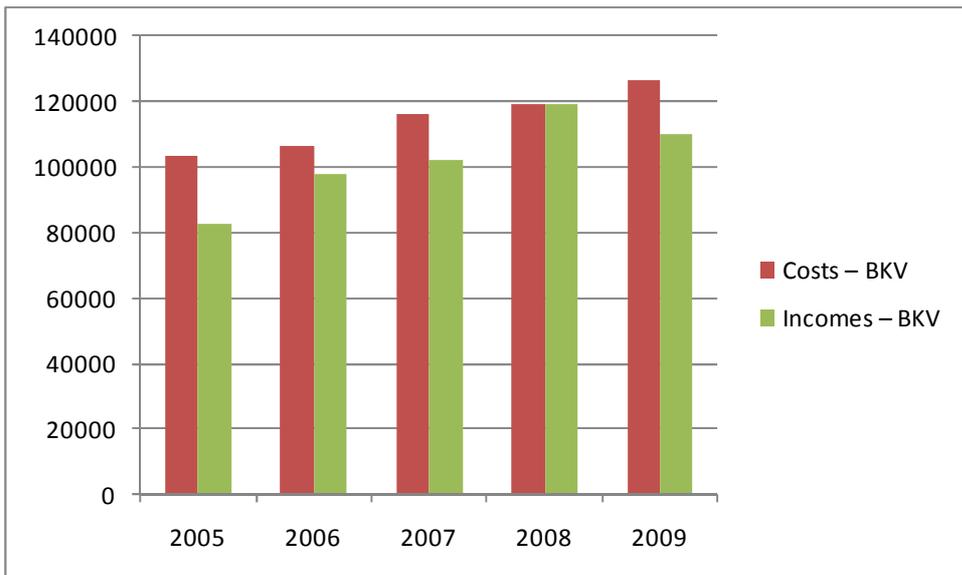
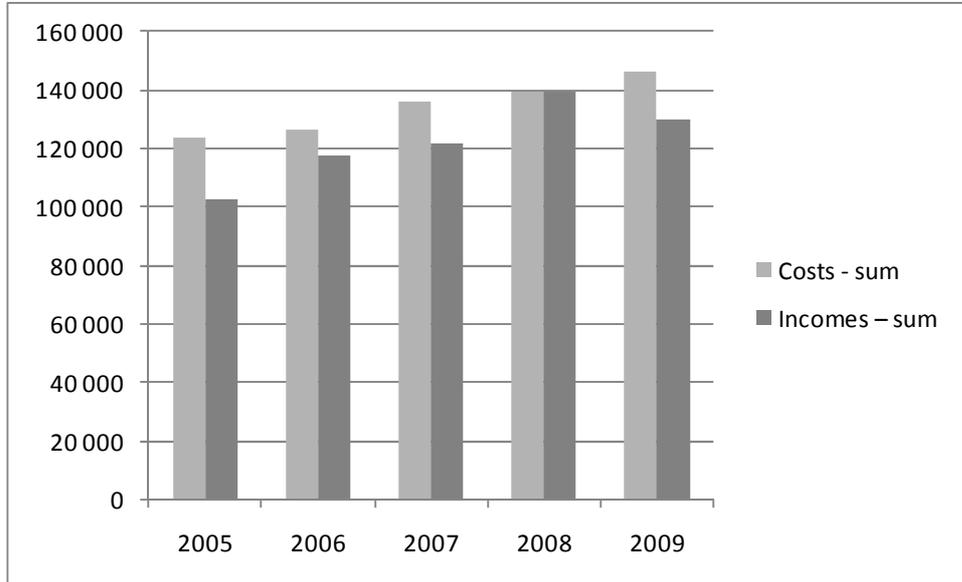
Budapest - /region

Revenues by transport provider

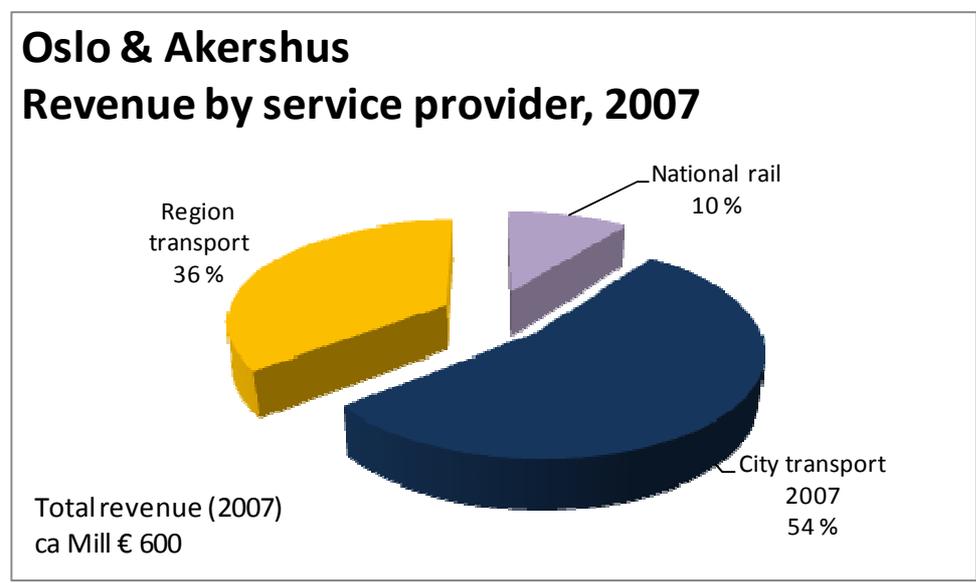
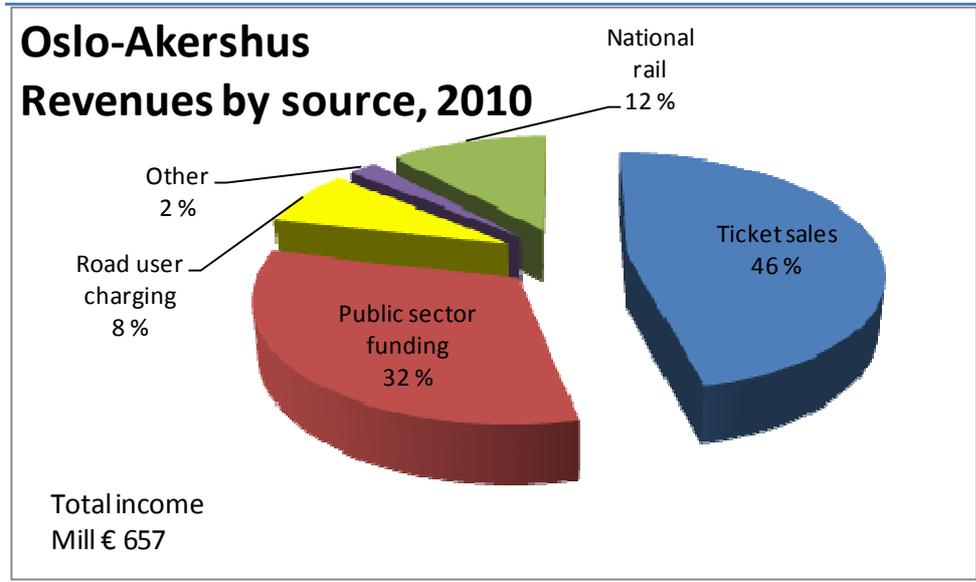


Total revenues
Mill € 725

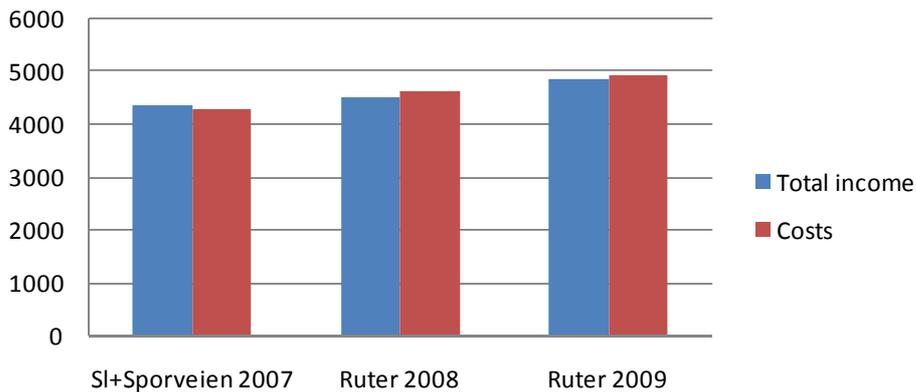




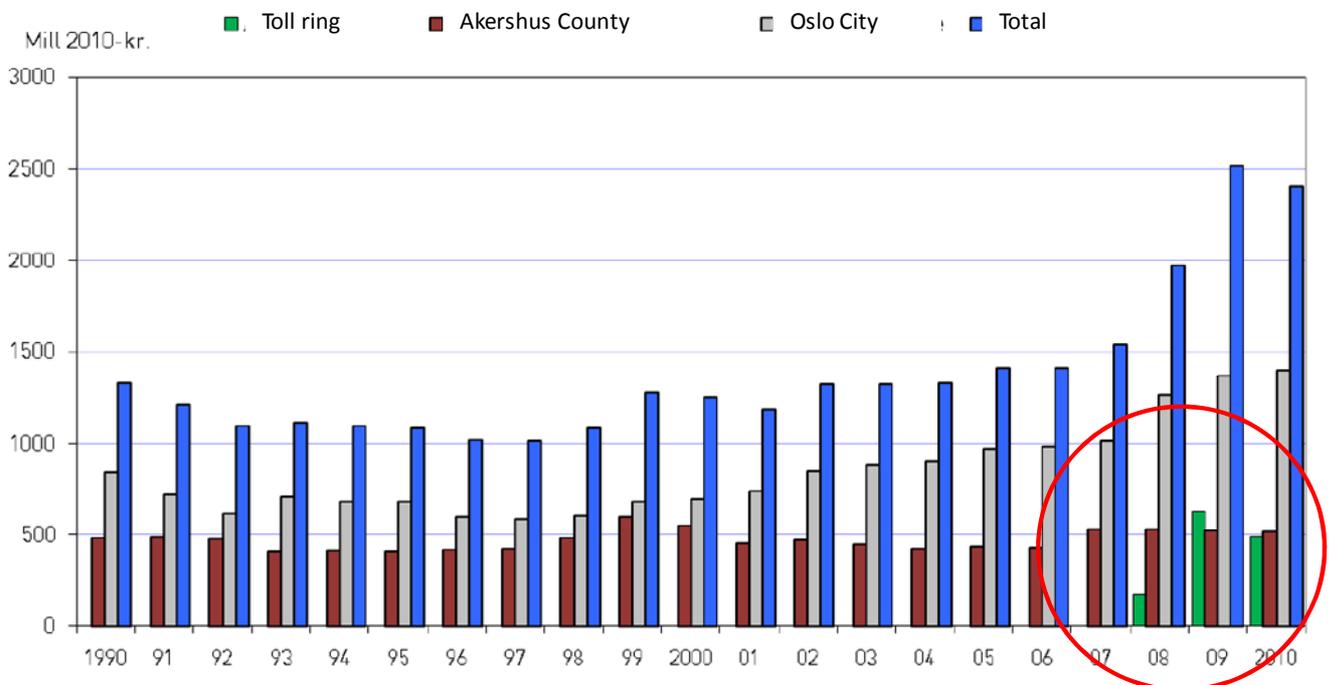
Oslo – Akershus



Oslo-Akershus Development of revenues and costs

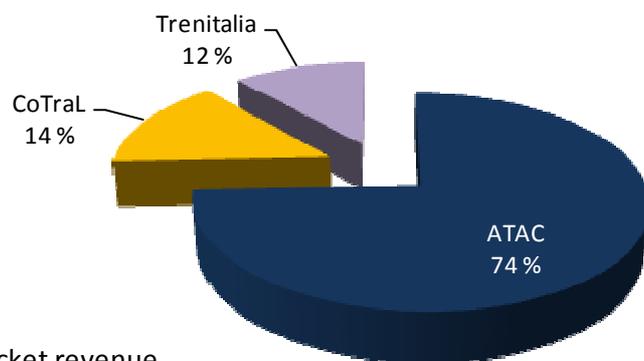


Public funding of public transport in Oslo & Akershus



Rome – Lazio region

Rome/Lazio Ticket revenues by service provider



Total ticket revenue
Mill € 327