



Newsletter | September 2011

Catch-MR (Cooperative approaches to transport challenges in Metropolitan Regions) is an Interreg IVC project running from January 2010 until December 2012 with a total budget of approximately Euro 2 million.

The project is aiming at promoting sustainable transport solutions and will by the end of the project period present a *Guide on efficient mobility and sustainable growth in Metropolitan regions*.

Workshop March 7-9 2011 in Oslo. Encouraging more use of public transport – Public transport priority, Parking policy, Financing and Road user charging. Hosted by the City of Oslo and Akershus County Council.

Encouraging more use of public transport - fourth workshop in Oslo, Norway

«Transport is fundamental to our economy and society. Mobility is vital for the internal market and for the quality of life of citizens as they enjoy their freedom to travel. Transport enables economic growth and job creation: it must be sustainable in the light of the new challenges we face. Transport is global, so effective action requires strong international cooperation. (...) Curbing mobility is not an option.»

European Commission White Paper - Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, March 2011

Workshop Oslo-Akershus, Norway



Participants at the Oslo-Akershus workshop in March.





Four key themes were discussed at the workshop:

Welcome to Oslo

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.

After the introduction meeting at Oslo's city hall the hosts arranged a guided tour of Oslo and Lower Romerike, north-east of Oslo. The participants viewed the dramatic improvements of tunnel systems and new roads, which the 20 year-old toll system of the Oslo Package's has financed.

We stopped by two Metro stations illustrating the difference. Nydalen, a former industrial site now residential and business area formed successfully in proximity to a new Metro ring. Veitvet a post war suburb, formed like Nydalen in its time in proximity to a Metro line, illustrated how also Oslo has work left to do within the old Metro system. In Lower Romerike the participants could also see how urban sprawl manifests itself in the region.

Parking policy (page 5) can be an efficient tool to reduce car travel into city centres. By reducing cars' access to a city center, chaos in the narrow streets can be reduced, giving priority for public transport and reducing local emissions from cars.

Road user charging (page 9 and 15) was the main theme for many of the visitors. The lessons learned from Oslo-Akershus are unique and were discussed in detail. The partners fell into four categories: Oslo-Akershus has had a toll-ring for more than 20 years; Gothenburg and Budapest are planning for a road charging system; Ljubljana and Rome are discussing and in Berlin-Brandenburg and Vienna road charging seems very unlikely.

Financing public transport (page 7) is an essential task in all seven regions. All regions need stable and long-term financing of the public transport. How are the transport organizations able to solve and improve their financing situation? What can we learn from those regions that have developed a simplified form of organization?

Giving public transport priority (page 4) will encourage faster and more reliable transport. Public transport will become more attractive for the passengers and more economical for the operators. In what way could public transport be given greater priority?

In addition to the main themes, two Norwegian researchers gave presentations on related topics:

March 8th was the 100th International Women's Day. Mrs. Randi Hjorthol from The Institute of Transport Economy (TØI) was specially invited to lecture on Transport and Gender (page 9). Hjorthol suggested that transport is still a male bastion and that women's transport needs could be given higher priority.

Mr Petter Christiansen, also from TØI, introduced a recently completed study of international research that has been done on Urban Sprawl. Urban sprawl represents one of the main problems in land-use and transport. There is no common definition of urban sprawl and the historical development of each region is of course very important. Land use and transport issues for project partners have already been discussed by Gothenburg and Vienna. In his presentation, Christiansen made use of other studies to identify and describe the driving forces behind urban sprawl that are common across all of Europe.



The workshop was opened with a welcome speech by Assistant Director of Infrastructure Per Morstad, from Oslo's Department for Transport and Environment.

Political support

The CATCH-MR project gets encouraging political backing from Oslo and Akershus. The deputy Mayor of Akershus County Council 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.



Deputy Mayor of Akershus County Council, Inge Solli.

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!»



Main junction: Oslo Central Station for train, bus, tram and metro.

Public transport priority

Giving public transport increased priority will encourage faster and more reliable journeys. Public transport will become more attractive for passengers and more economical for the operators. How could public transport be given greater priority?

Changed focus from capacity for vehicles to capacity for persons

Oslo and Akershus are currently working on a joint plan for land use and transport. Road capacity, capacity at bus stops and main terminals and accessibility measures are pointed out as crucial in order to utilize the full potential of the transport system. The focus must change from vehicle capacity to total capacity for passengers, especially in the inner city. Good intermodality, strategies for park and ride and feeder-buses will secure a cohesive and efficient travel chain, which also includes cycling and walking.

Five categories of public transport priority

During the Oslo workshop, Vienna listed five categories of public transport priority: *Political* (strategic documents, decisions on implementation), *legal* (public transport in road traffic regulation), *financial* (allocation of funds), *informational* (visibility in public space, visibility in maps, other information) and *technical* (separate public transport lanes, signalling priority, optimizing travel time and distance between stops, easy passenger boarding).

Priority measures

Ljubljana and Budapest mainly focused on priority solutions on existing roads. Budapest has positive experience with establishing separate lanes for public transport. However, this often involves taking one lane from car drivers. In Ljubljana there is some concern that simply converting existing car lanes would not be acceptable. Other measures specified by Ljubljana and Budapest were park and ride at all strategically located intermodal points, unified ticketing, congestion charging and the advantages of establishing an integrated transport-organizing authority.

The problem many metropolitan regions face when prioritizing public transport is space. The existing roads within the city centre are limited by build-

It is not always easy to prioritise public transport on overcrowded roads. Trams risk sharing the same queues as cars – example from Budapest



ings and other established public areas. The only option there is to reorganize traffic and take space away from one group of users (most often from cars), in order to prioritize public transport. This is not easy to get approved, as reducing space for cars in the city could be seen as a restrictive policy which would be politically controversial.

Lessons to be learned

Key measures can be identified to encourage more people to use public transport. Reliability, punctuality and speed of public transport are important factors, as well as good information. Public transport should also be perceptibly cheaper than using private cars. The need for political and public backing for prioritising public transport is essential, and can be achieved by increasing the general attractiveness of public transport.

Parking policy

A parking policy will change travel behavior, but not all changes are positive. More restrictive parking measures can prove to have only short term or even negative effects. Knowledge of the effects of parking policies is vital for choosing the right ones. How can parking policy contribute to increased use of public transport?

The Gothenburg Region has recently completed a study on the effects of parking policies on public transport usage. They have assessed the effects of defined measures on specific origins and destinations. The measures reviewed in Gothenburg were: increased parking costs, reduced parking availability, differentiated use of P-facilities and commuter parking policy. These parking measures were also compared with general increases in driving costs and congestion charging.

Parking costs and availability

If a destination is exchangeable, i.e. in competition with other, similar destinations, restrictive parking measures at only one location will most likely lead drivers going elsewhere rather than using public transport. Car-based developments with free parking would 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 a greater influence on car use.



Parking regulations can solve difficulties in daily city life.

At the origin of the travel, there is also a strong correlation between parking availability and car usage. In residential areas that are already built for car use, it is difficult to reduce the availability of parking or to change peoples' travel behavior. 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.



Commuter parking is a popular alternative for those who live in areas dominated by urban-sprawl. Parking areas close to train- or metro-lines relives the city centre of congestion at rush hour. There are now approximately 7 900 parking spaces connected to train and metro lines in the region, and 7 200 spaces are in use daily.

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 using public transport is already high, parking measures will most likely have negative effects. In Gothenburg's case a parking policy might have most potential in relation to 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 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 re-

gional parking policy could have a potentially good effect, but would be difficult to achieve across administrative borders. In some regions, simpler measures like stronger enforcement of already existing parking restrictions will make a difference.

Decreased availability 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 centers gives the added effect of additional and more attractive public space, thus also making the city center a more «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.

Impressions and participation at the conference

The participants at the conference had a tight schedule, but still had time to visit the famous Ekeberg restaurant, do a 3-hour bus tour and even experience the Nordic winter. The conference itself was held both in the City hall of Oslo, and in the central meeting facilities of Akershus County.



*Automatic ticket system has become widely used.
Foto: Ruter AS*

Georgia Larsson represented the Gothenburg region, where she leads the regional planning team. She thinks the Catch MR project is a perfect way to get new ideas and exchange experiences.

«It is interesting how differently people look at the same ideas, and to get feedback on what we are thinking. All the regions are different, but we all have similar challenges. I think the site visits are useful, to see things in real life and not just on paper. Here in Oslo I saw the tunnels under the sea, they were so huge. I had read about them, but it was special to drive through them and see how impressive they really are.»

Georgia emphasized that it was good to see what others have succeeded with, but also things that have failed.

«It is important that we dare to share both the good and the bad experiences that we have, because bad experiences are also something others can learn from..»

Adele Carlucci had travelled a lot further with her colleagues from Rome to join the conference in Oslo. She was impressed by what she had seen during her visit. «The subway was so nice and clean, and the tickets were sold by machines, which is very efficient. I was also impressed with the information given to passenger through timetables and electronic boards. We are not so good with traveler information in Rome, unfortunately, but we are trying to get better.»

Adele described the conference as really interesting and useful, despite being tired on the first day.

«I especially like the group sessions with discussions and the voting on each other's ideas. Learning about ways to finance public transport is really good for us, because in Rome nothing can be privatized, so we have to find ways to get more financing of public transport without privatizing it. A toll ring could be one way to solve this.»

Frank Segebade is the leader of Catch MR and a representative for the Berlin-Brandenburg region. He also thinks there is a lot to be learnt from Oslo and Akershus.

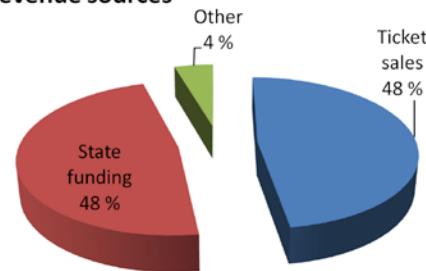
«Oslo is a very strong participant in the project and we find good input on solutions to transport problems

here. Oslo has long experience with the toll ring, which is a very interesting way to finance public transport.»

Frank has visited Oslo earlier, and seems to like spending time there.

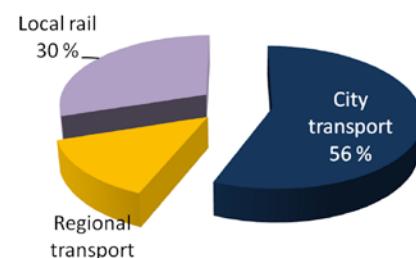


Revenue sources



Example from Berlin-Brandenburg.

Transport providers



Example from Budapest / Budapest region

«The conference was organized perfectly, it seems effortless but I know they put a lot of work into it. I like the friendly and relaxed atmosphere in Norway.»

Financing public transport

Public transport requires large costs and revenues.

Metropolitan regions must have an overview of the cash flows involved. The illustrations (at right) show how this can be pictured.

Ticket sales and public sector support are equally important for revenues. Social support and toll road user charging can also provide additional revenues. A breakdown of the transport service providers – city transport, regional transport and local rail services – helps to understand the expenditures in each region.

Transport revenues and purchasing power in the population

Tickets are cheapest in metropolitan regions with low personal incomes and most expensive in metropolitan regions with high personal incomes. Running costs depend on local wage levels, but strategic transport investments are more determined by international prices. It is therefore hard for cities with lower incomes to raise funds for key transport facilities without external support.

Stable, long term framework for funding transport

There are two basic preconditions for good management and development of public transport:

- 1 Transparency, with good access to information on cash flows and priorities. This allows both public scrutiny and the possibility of strategic decisions.
- 2 Long term sustainability, with secure levels of funding and a sound legal framework.

Budapest has experienced unpredictable changes in the levels of funding, and long-term underfinancing of its public transport system. This makes long term strategies difficult to develop and follow up.

Simplified organisation enables strategic decisions and economies of scale

Public transport services have evolved in each region according to local, historical and cultural factors. There is not one answer for all regions. But partners' experience, especially from Berlin-Brandenburg and Oslo-Akershus, shows the advantages of simplifying their funding and management structure. Strategic decisions can be made, and efficiency measures attained through economies of scale. Oslo and Akershus is an example of how a unified structure can pave the way for substantial improvements, such as simplifies fare-zones.

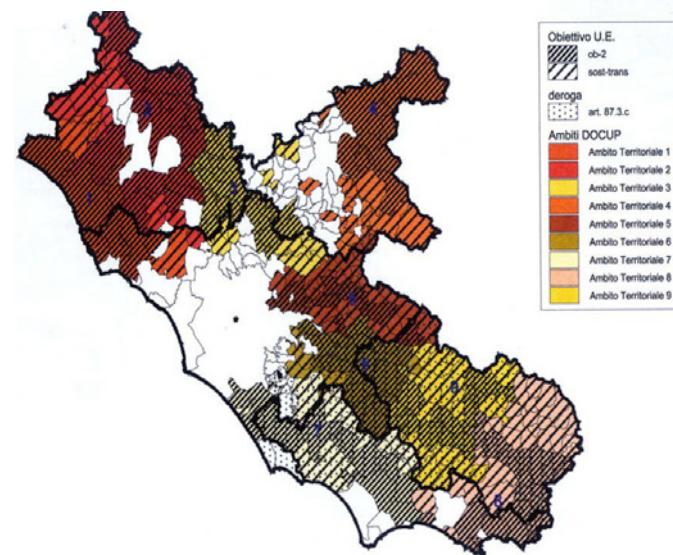
Increased economic efficiency is an overriding goal

Financing is improved through better 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 big challenge: increased frequency in buses or trams will not immediately mean that more tickets are sold, as the majority of passengers already use season tickets.

Development of Investment programmes

Investments should be planned over the longer term, and public-private partnerships should be explored to enhance the investment capacity. Under economic recession, additional funding for strategic transport investments can also boost the local economy. Both in the *short term*, through large scale construction projects, and in the *long term*, through becoming a more attractive and accessible environment.

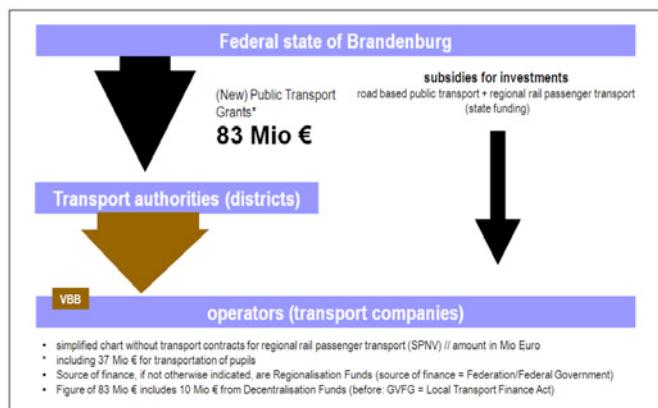
Province of Rome & Lazio Region



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.



A recent reform of the regional transport funding system in Brandenburg (2008) has enabled better strategic control, more effectiveness and potential efficiency gains.

Procurement of services gives better control of costs

Competition is important to stimulate cost effectiveness and improve the quality of transport services. Competitive tendering for bus services is well established in most regions, and competition for the tracked services, particularly trains, can be developed further. Incentives and «bonus-malus» agreements can be introduced, including payments relating to service quality, passenger volumes and other policy objectives. Examples of this could be learnt from both Berlin-Brandenburg and Oslo-Akershus.

Road user charging is an important income

Road user charging is a potentially important additional source of revenue. Oslo and Akershus use part of the incomes from road users to effectively double the total public transport subsidy in Akershus. The largest proportion of revenues funds a rolling transport investment programme. 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.

Road user charging

In Oslo-Akershus the main purpose of the toll ring has been to generate additional revenue for transport infrastructure. 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.

The Oslo Packages have facilitated major infrastructure investments

In Oslo a toll ring was established in 1990, based on a political agreement between Oslo, Akershus and the national government. The government agreed on granting 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). 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. Through the Oslo Packages a number of infrastructure investments have been made possible long before they otherwise would have been realized, if at all.



1 Traditional tickets are still widely used.

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

Cameras and electronic monitors at each toll barrier



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 foreseeable future.

What explains the differences between regions?

Economists would argue that road user charging is a way of including the external costs of car use. There are also 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 of traffic restrictions. Is an additional charge acceptable? In the Oslo-Akershus case the toll ring 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 be more suited and perhaps more acceptable in some regions than others.

Lessons to be learned

Through group discussions the participants of the Oslo workshop identified preconditions for introducing road user charging in more cities.

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



Women are generally more positive to public transport than men.

Gender in transport

International women's day celebrated 100 years on 8 March 2011. 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.

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.

Tour of the Oslo-Akershus region

The hosts organised a guided tour of Oslo and Lower Romerike, north-east of Oslo.

Participants saw for themselves how the 20 year-old system of the Oslo-packages has led to dramatic improvements in accessibility across the region. Former problems of congestion and crowding have been reduced, tunnels have been built and the traffic now runs well, even in peak hours. The guests were continually looking out for the physical «tolls», and at the end of the tour we saw the toll-ring!

Projects financed by the toll-ring

A sub-sea motorway tunnel had been recently opened, leading through-traffic away from the city streets in the east and opening up waterfront developments. This tunnel was the latest major project paid by the toll-ring which started in 1990 with the first stage of the tunnel from the west.

Nydal was a former industrial site. The area is now totally changed. Schools, offices, restaurants and housing now replace or reuse the former industrial buildings. One of the main successes is that Nydal was built around a new metro line station, which was financed by the toll-ring.



Commuter bicycle parking at Lillestrøm Train Station. Norwegians also use their bicycles during the winter months, and then whit studded tires.

Visits outside Oslo

Urban Sprawl was shown in the outskirts of Oslo and in the neighbouring municipality **Lørenskog**. Here, individually owned, detached wooden houses were undergoing continuous renovation and enlargement. The house prices were relatively high and the residential areas are strongly dependent on private cars and busses.

We finally stopped at **Lillestrøm**, a fast growing regional center at the end of a 15 km rail tunnel which opened in 1998, running directly to the city centre. Lillestrøm's railway station was modernized and an adjacent new bus station was built in the 90's, providing a good interchange serving neighbouring communities that are not on the train line. A parking facility for bicycles attracted the interest of visitors from southern Europe, especially the Norwegian speciality of studded winter-tires for bikes!



Ivan Tosics

Impressions and participation II

By Ivan Tosics, Budapest

I am a returning visitor to Oslo. During this trip I discovered that all the toll booths have disappeared since my last visit and the control system of road user charging became fully automatic. We have learnt during the meetings a strange expression: «avoid killing by success», which means that too successful solutions lead to overcrowding, which leads to unexpected problems when a new public transport line becomes overcrowded. Not only is the expression new for us but also the idea, probably because we have not yet introduced transport solutions that could be too successful.

interesting subjects

An interesting part of the meeting, bringing up clearly the cultural differences between European countries, was the session on 'Gender differences of importance for transport'. We have learnt interesting facts: Men are a greater risk to themselves and others in traffic; Women have a better opinion of public transport, are less emotionally linked to their car, and are more likely to accept limitations on car use. The difference between central European and Scandinavian countries became clear: there is more ageism in Norway than sexism. Wider parking spaces for women, which are purposely built by the western developers in new shopping centres in central European cities, would never be accepted in Norway!

Oslo showed a lot of signs of how well the city handles the difficulties of hard winters. I remember one week earlier I could almost not leave Brussels airport to Budapest as the anti-freeze liquid (used for cleaning the wings of the aircrafts) was in scarcity ... such thing would, I assume, never happen to Oslo. My only criticism is about the cleaning of pavements – they were dangerously slippery everywhere.



Nordic winter: participants were invited to enjoy a typical Norwegian winter activity.

By Christina Schlawe, Potsdam

Out of the fog: A very personal Oslo-Akershus reflection

Weeks before going to Oslo one question tormented us: Which skills would be improved during the workshop's Nordic Winter session? Now we know! We had to undergo a survival course for complete beginners around *Frognersesteren*: wearing the right clothes, bringing essential equipment (knife, logs), using predesigned holes for having a comfortable sit-in in a Norwegian forest, carving wooden spits to roast sausages, lighting and sustaining a fire.

Together we passed the test, sharing valuable good practices!

On our way back to central Oslo we hoped to see the famous Holmenkollen ski-jump.



Christina Schlawe

Unfortunately, thick wafts of mist stood between us and the mystic place of winter sports. But all the fog inspired some reflections on the past days:

- Norwegians have a remarkable attitude towards temperatures. A tropical night starts already at 20° C! Our Italian partners would probably still call it winter. Alas, when people are able to enjoy camping in the woods around Holmenkollen by -10° C and more, this Nordic perception of tropical nights becomes clear.
- Urban sprawl in Norway looks a bit different than at home: impressive houses on rather small plots. What planning can hardly influence seems to be solved by market rules: Less green land is occupied and a sufficient amount of natural surveillance created.
- Oslo folk must love tunnels! At least they are experts in tunnel digging. I wonder if the toll ring is mainly about this – collecting money for more tunnels?
- Oslo has the most ambivalent city hall in Europe, which was striking from the first sight. It is the kind of building that you can like and dislike at the same time. Undoubtedly, it is *Oslo's Structure of the Century* as it was named in 2005. And not to forget: the murals in the central hall. They offer plenty to discover for all attendants of a Nobel Peace Prize ceremony. Won't be boring!
- I want to name Oslo as the capital of *informal pedestrian priority*. Never before have so many cars stopped for me - even outside pedestrian crossings. If you come to Potsdam, watch out! You will be chased a bit more by cars, buses and trams.



Pedestrians are always by law prioritized in Norwegian traffic.

Thanks to all contributors

The organisers would like to thank especially all partners and their colleagues, who shared their experiences and wisdom in well-prepared presentations. The main thematic presentations were given as follows:

Prioritising public transport: Gregory Telepak (Vienna); Ivan Tosics (Budapest); Matej Gabrovec (Ljubljana)

Parking policy: Per Kristersson (Gothenburg)
Road User Charging: Henrik Berg (Oslo);
Per Kristersson (Gothenburg)

Financing public transport: Jobst-Hinrich Ubbelohde (Berlin);
Dávid Vitézy (Budapest); Luca Bardoscia (Rome)

Holmenkollen National Ski Arena hidden in fog!



Facts about some key projects in Oslo and Akershus:



Opera tunnel:

The Opera tunnel is 675 meters long and connects with tunnels on each side of the Oslo city centre, the total length of the tunnel is 1100 meters. It is an underwater tunnel where the elements were built on land and lowered into the water.

The tunnel is in this sense quite unique. Construction began in 2005, and the elements were lowered into the seabed the autumn 2008. The reason the tunnel was constructed in this manner was that it was too far down to accessible solid mountain.

In the fall of 2010 the tunnel was in full traffic. The tunnel was financed by funds from road toll and investments from national government.

The tunnel relieves the city centre of almost 90.000 cars and makes a significant contribution to improving noise, congestion and air pollution.



Biogas:

The city of Oslo has a goal to reduce emissions in the transport sector by 20% within 2030.

The city of Oslo also has a goal to make full use of waste resources and cycle-based waste management.

The municipality is now making a move from being a waste manager to a producer of renewable energy. Wet-organic waste is put to use in biogas production. All waste disposal vehicles now run on biogas and more busses are running on biogas, hydrogen and hybrid solutions.



At the present time there is enough biogas production to have 80 busses in traffic, when two more planned production sites for biogas are completed and in production there will be a capacity to fuel 480 busses.

Facts about the OsloAkershus Toll Ring:

A short description

Motor vehicles entering the city from all directions have to pay. The toll barriers are on all access roads, within Oslo municipality, about 2-5 km from the city centre. Traffic into and through the city has to pass toll barriers as there are no alternative routes.

The charge (2010) is € 3 for cars and € 10 for heavy vehicles (> 3.5 tonnes). Motorbikes and electric cars pass free of charge. The charge is the same for each time a vehicle passes, 24 hours of the day, 365 days every year.

An extra toll barrier has been built on road from the west, to meet higher costs of a motorway tunnel that is planned in that area.

The toll-system was fully automated in 2009, with no staff or toll-booths on the roads. Vehicles do not have to stop or slow down. At each toll barrier there is an array of electronic cameras and radio-magnetic signal devices that detect and register all passing vehicles.

Vehicle-owners pay either

- a Periodically, on a subscription basis linked to a personalized electronic tag in the front window of their vehicle, or
- b By invoice in the post for each individual crossing,
according the vehicle registration

The same technology and subscription agreement is now linked to toll payments on major road projects across the country. Registered data for vehicle movements is subject to strict data-protection legislation, to avoid abuse.

Payments go directly to a joint holding company, Fjellinjen AS, which is 60 % owned by the City of Oslo and 40 % by Akershus County. This company is responsible for operating the toll system. Receipts in excess of the running costs (usually about 80 %) are made available to fund transport investment and revenue costs in Oslo and Akershus according to a rolling programme.

For further technical and planning information in English, please see:

- [https://www.fjellinjen.no/en/](https://www.fjellinjen.no/en;);
- http://www.vegvesen.no/_attachment/112626/binary/200451;
- http://www.autopass.no/_attachment/71960/binary/310434



Modernised toll-ring in Oslo
– electronic registration with low
running costs.

Partner

Capital Region Berlin-Brandenburg

Joint Spatial Planning Department
 Berlin-Brandenburg
 (Lead Partner)



Frank Segebade
frank.segebade@gl.berlin-brandenburg.de

Central Hungary

Municipality of Budapest

Veronika Szemere
szemerev@budapest.hu



Budapest Transport Association Co

Balázs Fejes
fejes@bksz.hu



Oslo / Akershus

City of Oslo

Peter Austin
peter.austin@byr.oslo.kommune.no



Akershus County Council

Tor Bysveen / Marit Øhrn Langslet
tor.bysveen@akershus-fk.no / marit.ohrn.langslet@akershus-fk.no

Metropolitan Region Vienna

City of Vienna

Gregory Telepak
gregory.telepak@wien.gv.at



Provincial administration of Lower Austria

Norbert Ströbinger
norbert.stroebinger@noel.gv.at



Provincia di Roma

Province of Rome

Giovanni Pagliaro
ufficioeuropa@provincia.roma.it



Business Innovation Centre Lazio

Raffaella Labruna
r.labruna@biclazio.it



The Göteborg Region Association of Local Authorities (GR)

The Göteborg Region Association of Local Authorities (GR)

Georgia Larsson / Per Kristersson
georgia.larsson@grkom.se / per.kristersson@grkom.se



Ljubljana Urban Region

Regional development agency of Ljubljana urban region

Katja Butina
katja.butina@ljubljana.si



Anton Melik Geographical Institute of the Scientific Research Centre of the Slovenian Academy of Sciences and Arts

Dr. Janez Nared
janez.nared@zrc-sazu.si

