



**Proceedings
10th Annual Conference Vienna
Land-use Planning and its Impact on Transport
13-14 March 2006**

Welcome Address from the President

Gönnar SODERHOLM as President welcomed everyone to the conference. He expressed gratitude to the city of Vienna for hosting the 10th Annual conference, noting that the two day programme is interesting and ought to generate some interesting discussions. There has been close links between Stockholm and Vienna in the past which have inspired ideas that were implemented in Stockholm.

Gönnar also made a special welcome to the new participants at an IMPACTS conference, especially those from Zagreb and Budapest.

Ian JOHNSON from the new IMPACTS Secretariat explained that the programme for the conference had been specifically designed not to overload sessions with speakers, but to provide opportunities for greater debate and exchange of experience. He invited delegates to take advantage of the extended breaks for networking.

On behalf of the City of Vienna Andreas SCHIEDER extended a welcome to the participants and wished everyone a good conference. He touched on the strategy of the city to deal with the impact of land-use and traffic. There are lots of questions linked to inner urban development and those concerned with the regional development. For 15 years with the open borders there has been a challenge to build infrastructure.

Kurt MITTRINGER from the Vienna Planning bureau also welcomed everyone to the conference. He noted that the IMPACTS network of expert and policy makers consists of many central European countries and cities who try to address the specific challenges of advancing traffic volumes. The conference provides an overview of the current situation, experiences and efforts of cities in tackling those problems. He wished the assembly success and hoped everyone will benefit from the contributions.

Session 1

Impact of Planning Instruments on Suburbanisation & Modal Split in the Vienna-Region

Thomas MODREITER head of department for urban development and planning made a joint presentation with Angelika WINKLER, Kurt MITTRINGER and Shams ASADI on the Impacts of planning instruments on suburbanisation and modal split in the Vienna-Region.

Shams ASADI from Dept of Urban Development and Planning of the City of Vienna introduced the session which looks at the city urban development plan (called STEP) and the main strategies and policies of the Vienna master plan for transportation.



Kurt MITTRINGER noted that the plan was created in a situation when Vienna has had to look over the borders more than ever before. He described the traffic and settlement development in the region – not only in the city. This includes expert concepts that define the development of the city with the region. These involve political programmes, strategy plan and green areas, traffic masterplan 2003, climate protection plans and motorway plans.

One of most important factors was the fact that city population will grow significantly in next 10-15 years. Much of this coming from eastern European countries.

Vienna is embedded within the region of lower Austria, so cooperation has to be organised at different levels. The main problem of traffic is the modal split. Within Vienna a large majority use public transport, however, many of the commuters show a different picture and come to Vienna by car. Proposals to manage traffic include increasing bus services and a shift towards railways.

The region is rather unique in having two national capitals at a distance of 40km from each other (Vienna and Bratislava). They now have a closer relationship through the traffic infrastructure. Rail links are to be improved including connecting the two city airports.

An important factor is that the essential elements of the development are being planned together with the government of Lower Austria and set down in a common plan. There is a polycentric concept here in which a green centre is being maintained. Office areas are being concentrated on main public transport lines. Two new underground lines are planned to help overcome problems of poor public transport accessibility in areas where development is planned. The aim is to have a compact city and restrict urban sprawl.

Objective areas in the plan show the linkage between development and the high level public transport network (eg second CBD) with a new train station.

Angelika WINKLER continued the presentation with a focus on the impacts of planning instruments on sub-urbanisation and modal split in the Vienna region. Since the 1970's transport concepts have been updated on a ten year basis. The most recent is the Masterplan of 2003. A new element is the cooperation beyond the borders (national and municipality). Transport is influenced by geographic and demographic constraints. Since 1970 Vienna has lost 60,000 people who moved outside the city borders. This increases commuter flows. Outer districts are therefore growing fastest. The Masterplan aims to reduce car travel from 40% to 25% by 2020. In Vienna 65% of travel is by public transport and 35% private vehicles. Commuters present the reverse picture of modal split. Motorways are overburdened and parking space is an issue. There is therefore a focus on parking place management linked to improved public transport with priority at junctions for trams etc. Park and Ride facilities are being built at the city borders. Parking permits have reduced the number of non Viennese registered cars parked in the city by two thirds. Cycling paths are also being developed with a more complete network filling the gaps. 1000km of cycle paths exist.

Railways historically terminated in Vienna. There is a plan to create through linkages with the new station to help utilise this mode for city travel. The area around the station will also become a new centre for urban regeneration.

The session concluded with a lively debate.

Csaba OROSZ raised a series of questions asking for more detail on experience regarding through stations, whether park and ride was subsidised or in private hands, and in respect to parking policy how do you attract private sector investment.



Angelika WINKLER responded that in respect to stations Austrian railways carried out feasibility studies on the plan and the city is developing plans for developments around the site. Park and Ride provision by the city is financed exclusively from parking metre revenues.

Julio GARCÍA RAMON observed that Barcelona has similar problems to Vienna, but park and ride facilities are provided outside the city. Those shown in presentation were inside the city.

Angelika WINKLER responded that there are also park and ride facilities outside the city boundary which Vienna make a contribution towards.

Maria KRAUTZBERGER noted that Vienna had presented a settlement development goal to define limits (green areas) and asked how this is organised in relation to regional policy?

In response **Angelika WINKLER** stated that the planning aimed for development along primary public transport lines. There was more control within the city limits.

Roland RYDIN requested more information on any provision of Bike and Ride facilities.

Angelika WINKLER commented that there was a “City Bikes” initiative where people could rent bikes, but otherwise provision was limited to areas around stations.

Claude DARGENT observed there were differences in the developments and sought information on how ecological considerations and funding were dealt with and how priorities were set? In particular he was interested to hear how a change from car to public transport could be realised.

Angelika WINKLER replied that in relation to car use constriction of motorways was not in the hands of the city but under federal control. In total about 50% of federal funding went on the underground system with the idea of helping move commuters from car to public transport.

Fredy WITTEW stated that until the 1980’s planners had focussed on individual traffic, but since then there had been a move to develop local public transport. The process had 2 themes: building local public transport, and building developments along those lines. He was interested to learn what was the priority in Vienna?

Angelika WINKLER responded that on the one hand the city was aiming to create a high level public transport network, and on the other hand it adopted strategic planning of settlements. The city was improving the existing urban structure whilst also creating new infrastructure from scratch.

Isabel DEDRING noted that Vienna has a polycentric development of the CBD, whilst in London there was only one strong CBD which raised the issue of whether such a development can be adequately supported by public transport. She was keen to learn what was the driving factor for adopting a polycentric model.

Angelika WINKLER responded that historically there had been a core centre. The city was trying to strengthen 2nd and 3rd level centres for ecological reasons and to reduce the burden of a monocentric centre.

Cristina POU FONOLLA was interested in the fact that Vienna reported 65% cycling and public transport usage. What was the percentage for cycling alone given the 1000km of cycle way in the city?

Angelika WINKLER said cycling represents about 4 to 8%. There was a trend towards cycling for the journey to work, but that it was seasonal given the weather in Vienna.



Friedmann KUNST asked whether the parking place management strategy was targeted at reducing private car use, and whether private parking places were included in the strategy? He also observed that Vienna was experiencing an increase in public transport use and was interested to know what made it attractive?

Angelika WINKLER replied that parking space management was constrained to public sites only. The strategy of making public transport high quality and frequent was credited with its success, but it was supported by the parking strategy.

Fredy WITWERT sought more information on the tramway cargo initiative mentioned in the last IMPACTS newsletter.

In response it was noted that the freight tramway is an initiative to move freight onto trams at night. Other cities are also trying this (eg Tokyo) and Vienna had maintained good contacts with these to exchange experience. An eventual objective would be to move a major part of goods transport on the trams.

Session 2

Experience in Central & Eastern European Cities

Chair: Gunnar SODERHOLM

Having heard the situation of Vienna in the previous session the conference moved on to compare transport and landuse planning in neighbouring cities from Central and Eastern Europe.

Focus on Budapest - Csaba OROSZ

Csaba OROSZ gave a presentation that reflected on the fact that the traffic problems facing Eastern European cities today are the same as those which Western European cities have already encountered. Cities like Budapest are therefore seeking to benefit from western experience.

Increasing travel time is being experienced as people move out of cities. There is a heavily subsidised public transport system. However, increasing car ownership is leading to congestion problems. Subsidised (free) public travel for the older population is generating traffic. This can affect quality of service (e.g. overcrowding).

Modal split in Budapest today is about 62% for public transport, but much lower in the young. Parking policy can have effects. Suggestions of free parking in the city at weekends have major impacts on the economic case for providing parking facilities as well as for travel patterns. Pavement parking charges came in during the 1990s and are now being extended from 2 to 4 hour durations to improve compliance.

Additional motorway sections are planned to improve the road network and reduce the heavy congestion that exists today. However, if/when the new M10 is built it will create capacity to the city boarder, but then traffic will be constrained by the city streets.

Intercity trains work well. Bus services suffer from traffic congestion and limited priority systems. Interchanges are needed to improve quality of travel. A new Metro line 4 is being built.

There is a new image to public transport appearing with the introduction of new buses. This is attracting more affluent passengers.



There was no centralised urban planning controlling shopping centre development, so these are appearing out of town.

If politicians do not want to face the problem of road pricing there are several possibilities. There is the hope of funding from the EU to maintain a free of charge network. Introduce a road pricing scheme based on real costs. Road pricing with compromises (ie some tolled roads). Traffic light control system to moderate traffic densities in city centre.

As with Vienna and Bratislava there is a need to have similar regional collaborations.

Focus on Zagreb – Slavko DAKIÇ

Slavko DAKIÇ expressed the thanks of the City of Zagreb for the invitation to participate and their interest in joining IMPACTS. He gave a brief overview of the situation in Zagreb concerning Land-use and traffic planning and current projects for the modernisation of transport in the city. The physical geography of the City location and its historical development have dictated today's situation. The presentation drew attention to environmental land-use constraints and traffic patterns and to the limitations of what can be done in the short term.

The transport master plan for the city identifies several opportunities for development. The most topical is a tunnel through the mountain to the north of the city and a ring road around the city. A second project is a new route involving motorways on both sides of the city (East and West). The third project involves a light rail system devised in 1999 that provides connections for light trains or tramways. It includes two sub-projects involving 2 new bridges connecting both the new and old parts of Zagreb. The fourth project involves renovation of the airport of Zagreb. This is a completely new project in which the plan is to build new terminal with a new road that is linked to the motorway.

Csaba OROSZ from Budapest commented that a transport plan was made for Zagreb around 1999. What is the current plan, when was it made and how systematically do you follow it?

Zagreb responded that the study was carried out by MVA, commissioned by the City of Zagreb and the World Bank. The Transport master plan study is very valuable start for traffic planning activities. For the moment we believe the light rail system is the most relevant and want to proceed with that. The study was limited within the administrative borders of the city, but since cooperation is expected with the surrounding region Zagreb want to expand the study to include the studies for the tunnel, for the light rail system and a study for the airport and bridges and ring road within the city. This will give a result in which the existing rail system in Zagreb can be used for public regional transport and inner city transport that will address the traffic problems faced. Based on this study Zagreb will update the light rail system. Other parts of study are not so relevant because transport policy will take another course.

Friedmann KUNST asked both cities if they have instruments for an integrated planning covering Transport planning and Land-use planning. It seems spatial planning is behind traffic planning. Are there any approaches that show you are trying to introduce integrated planning.

Slavko DAKIÇ and Csaba OROSZ responded that this assessment is true. Csaba OROSZ went on to identify examples of the lack of coordination and the dependence on the car which influences demand. There is a perception by Zagreb that you have to provide quality services to attract public use.

Keith GARDNER commented that in London the introduction of high quality bus services has lead to an acceptance and use of the service by all sectors of society.



Isabel DEDRING observed that it appeared institutional cooperation was weak in Budapest and compared it to the situation in London where there are 33 boroughs making decisions at a lower level within the city.

Slavko DAKIĆ and Csaba OROSZ responded that for Budapest there is a general expectation that the city will do everything. In the case of Zagreb there is a move to have private enterprise involvement and to work in partnership.

Session 3

Roundtable Discussion - Keeping Cities Moving

Chair: Claude DARGENT

Claude Dargent opened the third session covering a very wide subject with the opportunity to have a political discussion on issues. To set a scene for that discussion the roundtable opened with brief statements from 5 cities (Berlin, Brussels, Goteborg, London and Paris).

Jorgen Linder from Goteborg gave a few examples of actions carried out in recent years. The city is comparatively small with about 500,000 inhabitants compared to capital cities. There is no metro and only a few rail routes. The biggest problem is that the city is divided by a river with few bridges and only one tunnel. New tunnels for rail commuting are only at the discussion stage. The cycling network is being improved, but this is seasonal given the climate in Winter. Cyclists also do not respect normal road regulations as much as other motorists, leading to safety issues. Another initiative is a 6km by 4km environmental zone which restricts vehicles entering the zone to the more modern environmentally sensitive models. It provides an incentive to create a more modern heavy vehicle fleet than is found elsewhere in Sweden. The central administration is also taking a lead with the introduction of a car pool using eco sensitive vehicles that is mandatory for commuting to work by car. This has greatly reduced car use in journey to work by 50%. Other voluntary car pools are used in city, but more could still be done. New trams have been bought to maintain a high quality service.

Maria Krautzberger commented on urban planning developments in Berlin. Within IMPACTS Berlin has often reported on the city plan which resembles that of Vienna. In 2003 the city adopted a traffic development plan and has seen that the objectives of modal split, of environmental improvements, cycle traffic and traffic safety are on target. A large number of measures decided in recent months based on the general plan (air quality, safety etc.) provide important guidelines for political measures as well. Some of measures are at times restrictive. The largest challenge in the coming months is the World Cup football competition and how can the visitors be handled. Traffic routes will have major increases in volume. The city is therefore trying to get a shift of normal traffic to public transport. A north-south tunnel is due to open in 2 weeks that will redistribute traffic in the city. The city is also working on implementation of more 30km speed limit zones in the city (75% of the area will be subject to these zones). It is trying to get this limit implemented on main traffic routes to increase safety and reduce pollution and noise. Berlin is also trying to control goods traffic with a concept that goes beyond transport by lorries, but extends to passenger car transport and public transport. There is also a desire to shift the transport of goods to railways with more goods distribution points throughout the city. Berlin is introducing new standards for local transport by bus, tram, rail and underground through a contract review with operators. In May 2006 the new main train station in Berlin will be opened constituting a major change for long distance rail transport.

Keith Gardner commented that in London the year 2000 saw a return to regional control with the election of a Mayor. From 2000-2004 there was a re-establishment of that control. The Mayor has responsibility for



regional spatial planning and transport planning. The “London Plan” guides the 33 London boroughs in terms of spatial planning powers. The Mayor can set the strategic framework but often local level actions do not go in the same direction. The challenge London faces is a huge increase in population and employment (about 800,000 people between 2001-2016). The significant challenge therefore as a transport authority is to provide capacity to permit this development to occur. Dealing with congestion in central London has been a focus of the Mayors policy. The role of the congestion charging scheme in reducing traffic by 15% improving reliability by about a third and along side that improving the bus system across London. The mayor set a target of increasing bus patronage between 2000-2010 of 40%. London has more or less achieved this in 5 years and brought in users from across the social structure. The other issue was road safety with a similar target of reducing accidents by 40% by 2010. Again this has been reached within 5 years and the target is increasing to 50%. Control of the underground system has now been returned to the Mayor. Through PPP the aim is to bring assets up to a good state of repair to increase reliability. There has been a 4% modal split from the car to public transport across the whole of London. Future focus will be on increasing public transport capacity (e.g. Cross Rail). Another focus is on the development of cycle lanes. There is a London cycle network of 2000km routes. Moving forward 2004-2008 the environment is a theme with the preparation of a low emission zone for the whole of the London area. All lorries buses and coaches will have to be at least EURO3 standard. The final challenge is climate change. London wants to reduce CO2 emissions through modal split changes, increasing use of new fuels and technologies (e.g. Hydrogen fuel buses and diesel electric hybrid buses). The Olympics in 2012 will be a further challenge.

Pierre Schmitz noted that Brussels is a complicated city and the legal framework is not very transparent. Everything that has to do with parking is of importance. To tackle the mobility problem you have first to find a solution to the parking problem. Stakeholders are being asked to participate in a dialogue on the issue to reach a stage where there is one authority responsible for parking spaces. In the Brussels region there are 19 communities and municipalities that have responsibility for parking. Sustainable mobility is a second objective to get people to use bicycles and walk more. To do this you have to increase the level of road safety, since these groups are the main sufferers. A new camera system has been introduced to find out where people speed and to let people know this is being monitored. With respect to local public transport there is assistance from Europe which has outlined a standard for more environmentally friendly systems including noise reduction. The fleet is being renewed in respect to buses, trams and underground to incite people to leave their cars at home and use the improved public transport. Another topic is Park and Ride. In the municipal area of Brussels it is difficult. There are also pressures for high mobility for trucks – a conflicting demand that is not easy to handle politically. For others the quality of life is of more importance. With respect to air pollution buses are being equipped with better engines and also to reduce noise. In centre of Brussels the population has a large immigrant composition, with more affluent groups leaving the city and commuting in. Extending and improving the public transport routes further encourages this move. This leads to a distorted tax burden since it is based on residences. To get people to move to local public transport you have to make it more attractive.

Claude Dargent noted that Paris has considered the question of whether a market economy allows sustainable planning and first of all urban planning and urban development. The response in France has been yes. This requires spatial planning and land-use plans. With respect to local public transport the situation has not been as systematic. One of the most important aspects was how far can we go to ensure land-use measures happen the way we want them to happen. Public transport development is always lagging behind urban development. For 40-50 years around Paris there has been such a situation. When we talk about urban development there has been deregulation. In the region around Paris people live in the West and work in the East and nobody cared about the impact on traffic and transport. It has been agreed to organise things better with a focus on both urban development and transport. Cars are not the means of transport appropriate for use in the city. We want to invite people to switch modes. In a recent survey 78% said they were in favour of a reduction in car use. Air quality effects life expectancy, so changing modal splits is of utmost importance.



For 5 years we have made substantial progress and vehicle traffic has been reduced by 15%. At same time people really moved to public transport. With respect to the future in Paris and the surrounding region there is an intention to elaborate a master plan for the development of region and a transport plan for Paris. These plans need to be harmonised. Public transport facilities which are well balanced can be useful if the population density is high enough. An objective is to make sure that the wish to reduce car usage does not damage the economic vitality of the region.

The floor was then opened to a general debate:

Isabel DEDRING asked whether the objective is mobility or access to services?

Pierre SCHMITZ responded that all cities experience these problems. In Brussels internet shopping has been found to have a negative effect on traffic, producing inefficient transport delivery patterns that add to congestion.

Julio GARCÍA RAMON raised the topic of freight transport and goods distribution, asking what are main problems especially with deliveries?

Jorgen LINDER commented that for Goteborg there is a move to relocate distribution centres to the city edge.

Claude DARGENT noted this was also an important consideration for Paris. The city is planning, in the framework of the transport plan, to establish standards for environmental damage. They are putting pressure on companies to have modern transport fleets. There is also a move to examine how the rail and tram networks could be used for freight movements (especially at night).

Friedmann KUNST explained that in Berlin the volume of goods traffic is declining due to development of metro centres. However, even though the volume of goods is declining there is still increasing traffic due to mode change and lots of small inefficient deliveries. They are introducing from 2008 onwards an environmental protection zone in the city to boost fleet modernisation.

Gönnar SODERHOLM observed that in Stockholm they had seen a 25% decline in traffic following introduction of the Congestion Charging system. This has led to a reduction from 50% to 17% of the population who see traffic as a problem in the central area. The city is also trying to build new homes in those areas of the city that have good transport connections. He also noted that noise and air quality aims can often conflict which does not lead to the best overall environmental result.

Fredy WITTEW noted that for over 20 years the car (individual travel) had been a major transport problem in the city. However, the introduction of 30km zones and pedestrian areas had redressed this balance. There seems to be a possibility that we could reach a point where public transport becomes the standard and private transport is rare in city centres.

Julio GARCÍA RAMON asked for more information on the speed restrictions applied in Berlin and their success.

Maria KRAUTZBERGER responded that 75% of urban area had 30km zones applied for safety reasons. This covers mainly residential areas. There was an attempt to extend this to main traffic routes. It was welcomed by locals since noise is reduced and air quality improves, but the courts overturned the plan after objections from taxis.



Claude DARGENT stated that Paris also had 30km zones but only over about 15% of the city mostly in housing areas. The effect has been a reduction in traffic. Extending the size of pavements (mainly in residential areas) has also helped and brought about a greener environment. A plan to extend the 30km zones over the whole city is not accepted by the population.

Monica HILDINGSON indicated that reducing the speed limit to 30km in Stockholm has seen some compliance and a decline in traffic, but there are as yet no statistics available to demonstrate whether safety benefits have been achieved. However, with reduced traffic after congestion charging average speeds might be expected to rise so this could influence accident statistics.

Pierre SCHMITZ commented that although the city of Brussels wants to introduce a 30km limit, it is the municipalities that have the authority to set limits.

Gönnar SODERHOLM noted that in Stockholm they have found 75% of the population support a reduction to 30km, so it is not necessarily political suicide to follow such policies.

Friedmann KUNST observed that noise reduction is on the agenda from 2008 and one of the most effective ways to achieve this is through speed reductions.

Pierre SCHMITZ said that Brussels has adopted a pioneering role in these areas over the last 5 years with an action plan, but that as far as the population is concerned air quality has greater importance than noise.

Fredy WITTWER noted that Switzerland already has strict noise standards. The trials in Geneva include reduction of speed but there is also another criterion that is if traffic is flowing or not. If traffic flows there are noise benefits. In response Geneva are replacing many traffic light junctions with roundabouts which has led to 80% of the surrounding residents saying there is less noise even though traffic volume is the same.

Claude DARGENT drew the roundtable to an end with the observation that the discussion has shown there is consensus in many areas. For example actions towards urban development and the different ways of reducing speed. In many of these areas we have the same objectives.

Gönnar SODERHOLM concluded the session by noting it had been an interesting day and reminded everyone of the Conference dinner which was a further opportunity to continue discussions.



14 March

Rudolph SCHICKER
Executive City Councillor for Urban Development, City of Vienna

Rudolph SCHICKER extended a warm welcome to everyone at this the second IMPACTS conference to be held in Vienna.

He commented that the topic is very diversified. Vienna has railway infrastructure from the 19th Century with central stations. At the time Austria had an empire with 50,000,000 population and all the connections led to Vienna. Today we live in a united Europe and the situation is different. These head stations now prove an obstacle. He joked that the trans-European network (Paris – Budapest) needs the Vienna railways because they need to move from the West station to the East station to continue to Budapest and that is not an international connection. So in the last few years there have been intense negotiations with the government to install a central station where you can arrive from all directions, or continue onwards. It will also connect to the airport. It will be built between 2007-2012. The old stations will remain for local and regional commuters. The result will be an infrastructural change that releases land. There will be 55 hectares of free land around the station that can be used for urban housing. Around the North and West stations similar amounts of land will become available with excellent connections to the city centre. The new situation will enable Vienna to become a centre of communication within Central and Eastern Europe. There are lots of changes ahead for Vienna. The region will therefore remain a very dynamic one.

Session 4
Landuse Planning and its Impact on Transport

Chair: Keith Gardner - Head of Strategy & Business Development, Transport for London

Relief from Traffic Impacts by ITS? - Potentials and Limitations
Marian KRAUTZBERGER, Permanent Secretary of State in Berlin

The conference heard yesterday about the correlation between land--use and inner city traffic planning from the perspective of the city of Vienna. This correlation between the two led Berlin in 2000 to combine these two activities. Berlin was and is still a good model for planners. One can see this in a regional context and inner urban context. If you look at regional development in Berlin in the 1990's then you see how land-use developments can influence social development. When the wall fell there were new plans and for the first time a kind of suburbanisation. The development did not take place along the rail routes. This increased the traffic load in the journey to work. So the rapid transit train infrastructure was developed and connections to the regional network.

It is also a fact that the time benefits of rail over car have caused people to shift to public transport. This gave a greater settlement movement towards the suburbs. There is a necessary coordination between transport infrastructures and zoning in order to develop space in a more traffic reducing manner.

Like Vienna, Berlin is also trying to establish a long distance railway network. It remains to be seen whether coordination between zoning and traffic planning will be adequate. In Vienna it seems to go on a positive course. In Berlin it was necessary to build new long distance lines to re-establish the head station system that was destroyed with the division of the city by the wall. So there was a chance to reorganise the infrastructure. The discussion led to a model with a ring solution that has long distance stations and as an alternative a crossing based on a West-East axis. The common target of both models was to create a decentralised long distance structure that related to the polycentric structure of the city.



The operation of the rail system did not favour the ring solution whilst the cross rail solution led to a fear of concentrations along the axis. The result was a modified cross axis solution that gave a mushroom concept with 3 main stations in the north of the city and in the south the development of a south-east station. This gave 2 main stations in the north and a central station with the infrastructure connected to the rapid transit system. The land-use approach concentrated on these new stations.

The new transport infrastructure permits development of a lively area including a housing quarter. The station will go into operation in May 2006. At that time its capacity will be utilised by concentrating long distance traffic here rather than at the old station in West Berlin which will switch to local/regional services.

The new stations are well connected to other transport modes and come with shopping centres. So today we speak of new shopping centres with rail connections not the other way around.

Considering land use as a transport policy tool: A London Perspective

Isabel DEDRING, Director of Policy Unit, Transport for London.

Isabel commented that listening to other presentations it seems London is behind a lot of other cities in terms of the integration of land-use and transport planning. The integration of these policy areas in London is not very close, but the integration of London government now offers an opportunity for greater interaction.

The presentation focussed on why London is thinking of land-use as a tool of transport policy and looked at some of the barriers face by the City.

The context in London is that of a congested road network and significant growth of population - currently about 7.5 million and an expected increase of 1 million over the next 20 years. There is congestion all across the network but also a significant rise in traffic at all times of day and week. In comparison to Vienna in London most of commuting is by rail modes (about 75%) and only 5% by car. But car is used extensively outside the centre. Congestion charging only applies to central area.

London is not a dense city. Where the population is under 35 per hectare it is not possible to provide effective public transport as an alternative to the car. This occurs in a significant proportion of London. Car is the dominant mode over middle distance commutes. Large numbers of car journeys are taken for trips under 2km which presents a challenge to shift peoples behaviour. In considering policy tools to address these challenges in non central areas it seems that rail is not appropriate because trips are disperses. There is little road space for buses and limited scope for road widening. There is however, some scope for increasing walk and cycling.

How can land-use planning be used as a policy tool for transport? Even though the Mayor sets the strategic plan for London, it is the Boroughs that control the case by case application of planning. So London is very different from Berlin. At the regional level there is little influence on where services are located. There is some response to population change in a traditional "predict and provide" manner.

Transport can be used to open up new areas, and in London that is the Thames Gateway regeneration area. The Mayor's policy is to increase density to reduce commuting. It helps that the CBD is spreading, but the radial challenge will continue.

Transport can proactively drive land-use development. TfL are starting to look at accessibility maps. If we identify where accessibility is high but little development is planned then these are the places to try and influence planning decisions.



Detailed planning decisions are given considerable attention. An example of a new hospital was given in which the site layout for public transport was difficult and modifications were made to make public transport use easier.

At the regional level consideration is being given to co-locating services, locating services closer to residential areas and shifting short trips to non motorised modes. However, this has limited applicability in London for the commuting journey.

London is just starting to look at the effect of development patterns on traffic patterns, and what its impact might be in reducing the traffic. This is seen to be 15-30% for car traffic, which is similar in scale to congestion charging.

Institutional barriers are a big issue – many authorities make decisions that impact on traffic without TfL having any input. Transport costs are not borne by land-use planners which can lead to perverse decisions.

Julio GARCÍA RAMON commented that lots of policies are mentioned but not those related to parking which is a good strategy to change behaviour.

In response it was pointed out that TfL is a strategic authority but it is the boroughs that have control over most of road network even though it is the Mayor who sets the targets. Parking policy is an area that really needs further work. Since 1990 parking has been controlled by boroughs and politicians are keen to attract shoppers, so parking policy can conflict with congestion reduction measures.

Maria KRAUTZBERGER noted that it is clear we will not be in a position to reconcile and solve problems of traffic planning and land-use if we do not succeed in elaborating a binding spatial and traffic development system. How can we organise land-use planning such that in suburban areas reasonable settlement development is promoted with respect to reducing the negative impacts on the environment? Maybe we need an association of planning authorities. Would it make sense to engage in a more intensive discussion at EU level?

Berlin has found it is possible to organise parking strategies across authorities which do not conflict with overall interests.

Claude DARGENT commented that if you wish to have traffic policies that go hand in hand with urban development you need a common denominator, such that decisions are taken at the same political level and lead to elaboration of joint documents. Paris has such a plan for spatial development.

He went on to ask who has to bear the cost of creating centralised services such as the stations of Vienna and Berlin?

Isabel DEDRING observed that planning in London covers issues that go beyond spatial aspects. There is a whole range of policies but no guidance about prioritising these against an overall strategy. Enforcement of the Mayor's strategy where boroughs make conflicting decisions is too complicated and time consuming. The current procedures rely on compliance.

Angelika WINKLER responded to the question of Claude Dargent pointing out that the combination of stations will release areas not related to railways.

Maria KRAUTZBERGER observed that financing of long distance transport comes from government whilst the Lander provide regional level funding.



Keith GARDNER pointed out that the 2012 Olympics will bring an opportunity for detailed coordination of regeneration in a specific area. London has a north-south rail route and is planning crossrail an east-west link. However, the real issue is the cost which exceeds the ability of the region to finance.

Fredy WITTWER compared land-use and transport development in Bern where 80% of population live within 5-600m of a high level transport connection giving rise to 70% public transport use and that of Geneva where many people live outside the city in the canton and only 30% have good public transport links.

Friedmann KUNST commented that the examples of hospital planning given in the presentation were similar to experiences in Berlin where other institutions had created lots of traffic which was not considered at the planning stage. He suggested it ought to be more closely bound into the planning in future.

Mick HICKFORD asked how do you know when you have succeeded in land-use transport planning? Is it possible to succeed in a cycle of political, economic and social changes?

Isabel DEDRING responded that all we could hope to do is influence the 10-15 year period.

Maria KRAUTZBERGER observed there are differences between London and Berlin. Berlin has problems of an aging population and shrinking city. The goal is therefore to concentrate development in the centre not disperse it to suburbs.

Keith GARDNER concluded the session by noting transport is often left playing catch up. The issue is as much about access as about mobility.

Session 5 *Funding Mobility Initiatives*

Chair: Fredy WITTWER

The final session of the conference looked at funding issues, both in terms of how cities deal with the cost of initiatives and what opportunities might be on the horizon from European Community sources under the next Framework Programme.

Julio GARCÍA RAMON gave a presentation from the city perspective on the urban mobility plan for Barcelona.

In Spain there is no obligation to make a master mobility plan. However in Barcelona such a plan has been devised. This is seen as a way of maintaining a constant political direction. This follows several tracks including sustainable mobility management, improved road safety, encouraging public transport use, rationalising private car use and increasing pedestrian and bicycle modes. It also considers new management elements for urban delivery. All of which is aimed at cleaner air and a better quality of life.

The plan tries to improve accessibility for everyone especially the young and old without a car. It also has an objective of sustainable mobility together with increasing safety (reduced accidents etc), and finally to coordinate management of the whole transport system.

In Barcelona there are 1.5 million inhabitants in the central area, with 4.4 million inhabitants in the metropolitan area making up 70% of the regions population. 35% of trips are by public transport, 33% by car and 32% by cycle and walking. Most trips are within the city and these include 46% on foot. Trips across the



city boundary however include near to 50% made by private transport mostly by people living out sided the city who pay their taxes to other authorities.

By 2008 there are expected to be 9.5 million trips if nothing else changes. But this means more external trips. To maintain a good comfort index from a congestion point of view it is considered a 30% reduction in car mode share is needed. To make any reasonable change in mode share will take at least a 12 year time period for investments to have an effect.

It is estimated that investment of 8,000 million euro is necessary by 2012. This represents about a 50% increase in investment. Maintenance costs are a further problem. Only around 50% of this cost is covered by income, the remainder needs subsidy from municipal government, regional government and state government.

PPP is one possible source of funds (as used with tram system). Parking policy could provide another small amount of income.

The master plan will increase subway frequency, construct new high speed rail links and implementation of new and improved interchange points. Multimodal trips are at the heart of resolving the mobility problem which calls for a park and ride solution.

André VITS from the European Commission presented an overview of EU opportunities in FP7. He suggested that technology advances will offer benefits for cities.

The Framework Programme (FP) budgets are still being discussed by Council and Parliament. There is an intention to keep continuity but add new activities. Cooperation funding will amount to 44 billion euro over the 7 years period.

The Commission services are now preparing the launch of FP7 and its priorities for the first two years. In transport there will be two main lines (Transport itself and the Information Communication Technologies priority). Transport will have about 6 billion euro funding, but it includes all sectors. Urban mobility is one action line. In ICT there is emphasis on competitiveness as a way of getting innovation moving.

ICT for automotive technology has been the lead in the past, but now there is a link back to intelligent infrastructures. This could be important for transport planning for cities. Communication between vehicles should also feed back to the road network operators to help fulfil the planners strategy for the city. The i2010 initiative will provide a link between eSafety consensus and various planning levels (city, region, etc).

Traffic information is a priority. Field operational tests of sufficient size are needed in FP7. This is a large financial challenge, so there will be a link established with structure funds.

Solutions are determined by user needs. Standardisation will lower costs of implementation. Common architectures will provide economies of scale.

The session was followed by a brief discussion period.

Csaba OROSZ sought clarification of what were the case studies that are considered most important since people lost money in past?



André VITS responded that the European automotive industry is leading edge in global context but it depends on the topic. Framework programmes have helped to find coherence in Europe to provide an investment in people and skills.

Keith GARDNER raised the issue of reorganisation of state railways and sought more information on whether Barcelona had managed to have any influence on the development. He also raised the issue of restructuring of taxi supply since it had not been covered much and what control Barcelona has over taxi supply and operation.

Julio GARCÍA RAMON responded that one of the ongoing discussions was who would have control of railways. To aid this discussion the Masterplans are being passed to state government. In respect to taxi control and supply in Barcelona he pointed out the taxi ranks are not well located. Stopping a taxi in the street works well when demand is low, but to increase efficiency there is a need to use new technology to coordinate supply and demand.

General Conclusions - Otto SCHWETZ Chief executive Officer, TINA Vienna Transport Strategies

Otto expressed his thanks to participants on behalf of the IMPACTS Secretariat for coming to Vienna at short notice. It is difficult to absorb all the information of the last 2 days and summarise it here. It is interesting to consider if spatial planning affects transport planning or vice versa. This interplay is something that municipalities need to consider and cope with and this is a principle all cities are committed to.

In Vienna there is the concept of services of general interest. Cities must be proactive in addressing transport supply and provide services rather than just being reactive. Land-use planning must make sure the system can work. Work and living locations used to be very close. We need to try to bring back this home-work relationship.

In the Vienna region there is an attempt to have a common tariff system that uses pricing to make public transport attractive and so reduce private car demand. On the other hand there is the issue of cost. Who carries the cost of infrastructure and operation? Experience has shown that operation cannot take place in a manner that covers cost – but subsidy cannot be used to guarantee private operators a profit from the public purse. In Vienna the cost issue for public transport development has been partly overcome through an underground tax introduced to fund development of the system. This has helped speed up the development of the system.

The integration of transport infrastructure and land-use planning is important and should be considered at the feasibility stage as part of environmental planning. In Vienna the correlation between land-use planning and transport infrastructure planning is recognised.

This conference has shown how important the solution of the problem is and how different the planning approaches are in each city. It has shown that each of us can filter out lessons from this discussion for ourselves.

Gönnar SODERHOLM brought the conference to a close as President of IMPACTS. He once more expressed gratitude to the City of Vienna for hosting the event and noted that the conference has shown the essence of IMPACT as a forum in which cities can come together and share experiences from common problems.

