For sustainable mobility

INTEGRATED TRAFFIC AND MOBILITY MANAGEMENT IN THE FRANKFURT RHINEMAIN REGION – IVM
The ivm is a regional company which supports districts and cities in their difficult task of meeting traffic and mobility needs of the future. The districts in particular do not have the human resources to cope adequately with the ever growing demands of safeguarding sustainable mobility. Neither can traffic and mobility be viewed in isolation from the changes facing the region in coming decades.

Rural areas will see an increasingly diminishing and aging elderly population while the need for local public transport services for school children, originally seen as a basic mobility requirement, will start to decline. In the long term it is unlikely that funding for local public transport can be maintained at its present level.

Cities are currently confronted with clean air issues that are difficult to address without major encroachments into road traffic. Primarily this refers to trucks and lorries, together with delivery vehicles, whose emissions prevent a successful compliance with the limit values stipulated by the EU. Thus solving the conflict between providing adequate transport services for the cities, while at the same time meeting the demands to reduce pollution, is a major challenge.

One thing is quite clear though; no local authority in the region can solve these problems in isolation without having significant implications for neighbouring communities. There is therefore an increasing need to strive towards regional solutions. Within the framework of these processes, in 2005 the districts and cities of the region founded the ivm with support from the states of Hesse and Rhineland Palatinate. In light of the results obtained so far I see reasons to be optimistic that the region is moving in the right direction. This brochure provides impressive evidence of the successful achievements and the benefits generated by our work in the previous years. But there is still a lot to do. May I therefore take this opportunity to wish the ivm every further success.

Ulrich Krebs
Chairman of the Supervisory Board
FRANKFURT RHINEMAIN – A REGION FULL OF OPPORTUNITY

Many factors influence the demands made on traffic and mobility within the Frankfurt RhineMain region. With its high population and workplace density, together with its crucial function as a location for trade fairs, banks and insurance companies, the region places heavy demands on mobility services. 324,000 commuters come into Frankfurt to work every day, most of them by car. Frankfurt international airport, which handles more than 145,000 passengers every day, Frankfurt central station and the airport station, alongside the A3 and A5 motorways which form the “Frankfurter Kreuz” interchange and carry more than 300,000 motor vehicles each day, together make the region one of Europe’s key traffic hubs.

Frankfurt RhineMain is also the geographic heart of Europe. This is where people meet for conferences, to share scientific findings and to enjoy the art and culture of the region. The city of Frankfurt am Main in turn is the geographic heart of a polycentric area and is surrounded by major cities, such as Offenbach am Main, Wiesbaden, Darmstadt, Hanau,
Rüsselsheim, Bad Homburg vor der Höhe and Mainz, all linked by a close-knit network of efficient road and rail connections. These resources, and the outstanding traffic infrastructure, are among the region’s special strengths that must be preserved and further expanded on in the future.
The Frankfurt RhineMain region is not only just a business and scientific centre; it is also home to millions of people with widely ranging housing and leisure needs. Despite demographic changes and related migration losses, the number of inhabitants at the heart of this conurbation is on the increase – a trend that shows just how attractive city centre living has become again. A major challenge for the future will be to uphold the quality of life within the region while at the same time safeguarding the prerequisites for sustaining and expanding its competitiveness.

Expanding the existing traffic infrastructure is restrained by the narrow limits imposed by ecological and economical framework conditions, particularly given the considerable investment needed to maintain its current level. Therefore, in the future there will be a greater need for intelligent networking and innovative marketing to encourage a more efficient use of existing mobility services than in the past. Sustainable mobility services in the future will depend crucially on whether the general public can be motivated to accept these services and show a greater willingness to adapt their mobility behaviour accordingly.

This approach can only succeed by enhancing cooperation within the region and pooling related skills and expertise. This is why in 2005 the districts and cities of the region founded the ivm with support from the states of Hesse and Rhineland Palatinate. This created a regional platform to strengthen cross-municipality cooperation and joined forces in facing up to the challenges of traffic and mobility. When meeting their responsibility for local traffic, the authorities now work together to achieve regional solutions.

The ivm fosters cooperation between districts and cities of the region, in terms of traffic and mobility management, by offering practical, innovative solutions and demonstrates their feasibility in the form of best practice examples.

The ivm sees itself as a service provider that consults its stakeholders and addresses issues related to traffic and mobility which are prerequisites for the region's prosperity. This is achieved through close cooperation with key partners within the region, particularly the Rhein-Main-Verkehrsverbund (Rhine/Main Regional Transport Association), Hessen Mobil (Hessian Road and Transport Authority) as well as the Regionalverband FrankfurtRheinMain (Regional Authority Frankfurt Rhine/Main). Their shared goal is a common and intermodal perception of traffic and mobility services within the region which promotes sustainable mobility behaviour.

In recent years, the ivm has faced numerous challenges:

- Safeguarding mobility – how can the region remain mobile when the expansion of traffic infrastructure falls behind expectations?
- Which traffic-related and organisational measures help to satisfy the population's mobility needs and are more environmentally friendly and less harmful to the climate than in the past?
- How can the population be made more aware of the alternatives to using their car every day?
- Which solutions are appropriate for a continuing growth in business traffic? How can we go about solving the conflict between keeping the region adequately supplied with goods and services while maintaining the high expectations of residents within the cities?
- How can the region continue to expand a locational advantage that has been shaped by excellent national and international mobility and logistical connections?
Making the best possible use of opportunities!
The ivm employs transport and spatial planners, alongside geographers and traffic engineers, who impart a high level of expertise when creating professional solutions for intermodal, integrated regional traffic and mobility management. Their activities focus on ensuring individual mobility on a long-term basis while safeguarding a sustainable development of transport. These tasks are defined in the mission statement drawn up by the stakeholders and serve as an orientation guideline for the ivm to decide on which projects to direct its resources towards. Following the approval of its stakeholders, resulting projects are then undertaken either by the ivm’s staff individually or in cooperation with planning and engineering offices, external consultants or universities.

By maintaining an ongoing dialogue with these stakeholders and integrating them within decision-making processes, which ensures transparency during the whole process of developing solutions, the ivm has cultivated a strong network with other partners within the region.

It is this network which has allowed the stakeholders to play an active part in finding regional solutions at a technical level. This is also true of the Hessian Road and Traffic Authority, the Rhine/Main Regional Transport Association and the Regional Authority Frankfurt Rhine/Main, providing them with a participatory role in the development and implementation of integrated traffic and mobility concepts beyond their own actual sphere of responsibility.

**Services for the public**

The ivm has set up a number of services for the local population. These are primarily internet-based information and assistance systems which have been well received in the region.

- The cycle route planner has proved successful for planning cycling tours. Additionally, cyclists can also use a reporting platform to inform the respective local authority about damage and other obstacles on cycling paths.

- Hesse’s commuter portal promotes car pooling where commuters can both offer and search for ride shares or lifts to work.
The “Park+Pool” platform provides commuters with information about car-pooling meeting points near motorway junctions.

A similar platform offers an overview of “Park+Ride” car parks served by trains and buses.

Through a regional portal for cell phone parking, local authorities offer public car park users the possibility of a cashless payment system for their parking fees.

A recommended truck network and routing system within the Frankfurt RhineMain region which takes into account relevant traffic restrictions and bypasses areas sensitive to heavy goods transport.

A dynamic intermodal traffic information system (DIVIS) is still in the developmental stage. Using a personalised mobility guide it will show travel options for all means of transport, be interactive with current traffic situations and accompany the traveller right through to their final destination.

Services for the local authorities

To organise, advise and inform – this is the focus of providing services to local authorities.

The employees of the ivm develop practical solutions to maintain efficiency and sustainability within regional mobility and transport and undertake the moderation of processes that are necessary for a conjoint implementation of measures. The dissemination of best practice examples, experience and methods among local authorities within the region ensures that all interested stakeholders stand to benefit from the results achieved.

Services for local authorities range from direct advice to the provision of tools for information or guidance.

Within the field of school mobility management, the Offenbach district was shown how school transport management could be improved.

Company mobility management promotes a more sensible use of work-related mobility in terms of environmental issues. Direct advisory support to companies and employers has provided them with a new impetus, successfully raising their awareness of the subject and building up structures for an ongoing dissemination of the approach.

The ivm portfolio also includes other specific advice services, for example the traffic issues occurring at major public events, particularly during the preparation of the annual Hessentag state fair.

The ivm atlas contains and joins spatial data on various aspects of mobility, and from many different sources, in an internet-based geographical information system.

“memo” is an internet platform that visualises the content of messages from road traffic authorities within the Frankfurt RhineMain region concerning construction measures and other incidents affecting road traffic. Its purpose is to enable authorities to exchange information and to coordinate their response.

A web-based complaint management system for cycle paths sends cyclists’ reports on hindrances directly to the responsible body within local authorities so that specific remedial action can be taken swiftly.

Knowledge base

Key support for the ivm’s activities is provided by specifically compiled knowledge which also provides the stakeholders with important background information for their own work.

The Mobility Master Plan for the Frankfurt RhineMain region shows which measures for safeguarding mobility are available as possible courses of action. It also gives an indication of financial bottlenecks and their impact on road and rail infrastructure expansion.

Essential findings on the development of freight transport within the Frankfurt RhineMain region are provided in the “Business Traffic 2030” study.

Comprehensive knowledge about existing behaviour patterns is a vital prerequisite for influencing mobility behaviour. A household survey on mobility (“Mobilität in Deutschland – MiD”) and the Mobility Panel analysing individual mobility over several years provide important findings for future activities.
On the basis of this service concept numerous projects have been implemented in recent years and are described in greater detail below, illustrating which benefits have been gained so far or could still be gained in the future. These examples show the objectives pursued by the ivm and how these have been achieved. The central idea behind these objectives is defined by the business purpose of the ivm, namely to cooperate with its regional partners to develop an integrated traffic and mobility management within the Frankfurt RhineMain region and contribute to the sustainability of mobility. This approach involves a cross-municipality, regional perspective and includes all means of transport. The success of these measures depends crucially on the willingness of all players within the region to work together in order to develop such ideas and make them achievable. The more viable a concept is, the better the chances of actually implementing it are.

SPECIFIC PROJECT IMPLEMENTATION

- Optimum information: the ivm is developing a personalised mobility pilot
- Hesse’s commuter portal: car pooling for daily commuters
- Car parks for transferring to public transport and for car pooling
- Cycling route planner for the state of Hesse and beyond
- Truck recommendation network for the Frankfurt RhineMain region
- Mobility and school – making the future sustainable now
- Organising and promoting efficient mobility in rush-hour traffic
- Traffic concepts for the Hessentag
- Reinforcing public transport corridors and safeguarding accessibility
- Mobility Master Plan for the Frankfurt RhineMain region
- Mobility at a glance: the ivm survey of regional mobility data
**Optimum information: the ivm is developing a personalised mobility pilot**

This is our concept: travellers out and about in the Frankfurt RhineMain region can in future plan their route and required connections using their mobile devices, e.g. smart phone. In this way the region seeks to comply with the wish for mobility and flexibility together with environmentally friendly, sustainable mobility behaviour.

The mobility pilot provides information about all alternatives for getting to a required destination and takes into account all available means of transport and their combinations, such as Park + Ride or Bike + Ride. The mobility pilot accesses both historic traffic data and also the latest information about the current traffic situation. The aim is to also show important decision-making criteria, such as costs, total journey time and a carbon footprint for the journey.

**Always with an eye on the chosen connection:**

The mobility pilot can also monitor planned connections in the background. Users are informed immediately of any disruptions, even before their journey has begun, which makes it necessary to adjust their chosen connection. When users are en route to their destination the pilot continues to keep them informed about disruptions and offers new possible connections.

Data OK, Everything OK! An innovative service like the mobility pilot relies heavily on the availability of top quality data. Together with the current road traffic situation, car park availability and public transport data, the complete cycling and pedestrian network availability must also be up to date and be provided. The ivm therefore cooperates closely with the Rhine/Main Regional Transport Association and the Hessian Road and Transport Authority, who contribute both their knowledge and data resources. Intuitive, simple handling is also crucial for the success of the mobility pilot and so the Goethe University has examined and specified its requirements in terms of design. The mobility pilot is funded with resources from the “Mobility 2050” project within the framework of Hesse’s sustainability strategy.

«Keeping travellers well informed encourages them to become more aware of environmental issues and costs»  Prof. Knut Ringat
Hesse’s commuter portal: car pooling for daily commuters

Most commuters in rush-hour traffic travel alone. In contrast, car pooling offers a huge potential for economical and ecological savings. Efficient vehicle usage helps to reduce the traffic load on the roads while also decreasing traffic-related emissions. Commuters benefit from less congestion, save fuel costs and are hopefully less stressed. In rural areas with fewer public transport services car pooling makes an important contribution in maintaining mobility.

Hesse’s commuter portal offers an internet platform for car pooling. The portal is free, easy to use and has been adapted to the needs of regular commuters. With the cooperation of local businesses, major company sites and trading estates can be entered directly as destinations. The same also applies to the car parks provided at Hesse’s motorways and major roads which act as car pooling meeting points. Integrated within a mobility service, the commuter portal is also linked to local public transport networks and shows bus and train connections when the user searches for a suitable car pooling opportunity.

The state-wide portal is also connected to local and regional search portals to improve customer proximity and to ensure that car pooling opportunities are made known at a local level. In this way regional portals for North Hesse and Central Hesse have been set up in co-operation with local partners. There is also a link to the commuter portal in Rhineland Palatinate. Hesse’s commuter portal thus makes an important contribution to integrated traffic and mobility management within the districts, cities and municipalities of the Frankfurt RhineMain region and in the federal states of Hesse and Rhineland Palatinate.

»Travel together with car pooling, you are saving your money and the environment«

Joachim Arnold
Car parks for transferring to public transport and accessing car pooling

Despite all efforts to promote the attractiveness of local public transport options, even in more remote areas, Park + Ride (“P + R”) schemes remain popular among commuters who use their cars to access a station and then continue their journey by train or bus.

In order to encourage as many car drivers as possible to switch to public transport, and thus reduce car traffic and air pollution in the cities, improving planning methods and information on the demand for P + R is an ongoing task. To increase the usage of existing P + R facilities the ivm has set up a database which contains approximately 800 facilities that can be used for P + R at train and bus stations within Hesse. This database forms the basis of the information platform www.pundr.hessen.de, which was launched in autumn 2009, and shows respective locations on a map, alongside other useful data, that provides accurate information for potential P + R users.

In order to increase car pooling activities dedicated car parks have also been set up, mainly at motorway junctions, where several drivers can meet to continue their journey together in just one car. “Park + Pool” helps to increase vehicle utilisation, particularly during rush hour periods, and thus reduces peak traffic loads, benefits the environment and lowers individual mobility costs for the participants. In 2006 the ivm had conducted a survey for the state of Hesse on more than 60 designated commuter car parks with over 2000 parking spaces which then showed that a significant number of them were already facing an overload situation. An estimate of the potential needs which arose from this survey indicated a demand for a further 700 parking spaces.

»The efficient use of existing mobility services is a part of safeguarding sustainable mobility« Dr. André Kavai

BENEFITS

- Encourages drivers to switch from their car to public transport
- Makes commuters’ mobility behaviour more environmentally friendly
- Improves the efficient use of individual vehicles through car pooling
- Helps to reduce the mobility costs of participants
The cycling route planner for the state of Hesse and beyond

Hesse offers a wide range of charming and interesting countryside worth discovering as a holiday and leisure destination, particularly by bike, yet it is not always easy to find an ideal route to suit individual requirements. This is where the cycling route planner comes in: since 2007 cyclists have been using the free internet portal www.radroutenplaner.hessen.de to plan their cycling route on more than 20,000 km of cycle paths in Hesse and large sections of neighbouring states. It can even be used to plan a route to work!

To show a route the planner needs to know the departure, interim and destination points. It then calculates the total journey length, time and gradient profile, provides route instructions and GPS tracks as well as drawing attention to sights and attractions en route. It can even give a route-specific weather forecast. This information is also available on smartphones and mountain bikers looking for a challenge will find plenty of interesting suggestions here.

Since April 2010 cyclists have been using an internet platform to submit quick and non-bureaucratic reports of potholes, faulty signs, paths blocked by parked cars and other obstacles within the cycling network. This report is automatically forwarded to the responsible local authority for simple processing and action.

This cyclist reporting platform has been open to all municipalities in the state of Hesse since early 2011. So far more than 100 of them have actually participated in this scheme and it is deemed a great success, with more than 1,400 reports being received in the first twelve months alone. In 2010 the project was awarded the German cycling prize “best for bike – the bike-friendliest decision of the year”.

BENEFITS

- Fosters cycling and bike tourism together with environmental and climate-friendly mobility
- Supports local authorities in safeguarding the quality of their cycle paths

www.radroutenplaner.hessen.de

»The cyclists’ reporting platform is a successful example of active public participation«  Martin Boré
Truck recommendation network for the Frankfurt RhineMain region

Freight transport is part of a prospering economy and is indispensable in maintaining supplies for a population. Where final distribution at a local level is concerned, there is simply no real transport alternative to using trucks. However, as far as possible, trucks should be kept out of residential areas and away from schools, kindergartens, retirement homes, hospitals and other vulnerable zones when other routes can be used to reach their final destination. This is why corresponding road signs frequently limit the traffic which can use such streets.

In addition, restrictions are also imposed by limits of height and width, together with the load rating of bridges, and this makes it hard for truck drivers to successfully find their way. Especially as commercially available navigation systems often fail to give such restrictions adequate consideration, if at all, so that truck drivers frequently end up going the wrong way, often with considerable implications.

The truck pilot is the first of its kind in the Frankfurt RhineMain region and offers an overview of all truck restrictions and commercial estates, showing recommended routes so that trucks can reach their destination with the minimum possible impact. The basic data was provided by the local cities, municipalities and districts, together with the states of Hesse and Rhineland-Palatinate, and resulted in a unique database of information that has been previously unavailable in this form.

Drivers can use this service via internet to calculate a route between any two addresses which takes into account all the restrictions relevant to their individual truck, such as its height, width, length and weight. The intention is to promote the truck recommendation network for integration into existing commercial navigation systems, alongside additional features like the accessibility of truck parking facilities.

»Route recommendations – for giving freight transport more urban compatibility« Claus-O. Herzig
Mobility and school – making the future sustainable now

The whole issue of school and mobility has its roots in accident prevention and traffic safety. This will always be an on-going task, despite initial successes. However, one increasing area of motivation reflects social and health aspects, where concentration issues, motor deficits and growing obesity in children are caused by inadequate exercise on a day-to-day basis. Currently one in five primary school children is brought to school by car.

“School mobility management” refers to measures that help to make traffic to and from schools safer, more sustainable and environmentally friendly while fostering conscious mobility behaviour in children and youngsters. These measures are traditionally adopted at primary school but may also continue into secondary school and vocational college, becoming part of an educational process above and beyond just childhood and youth. Those who learn to make a flexible use of transport options while still a child often find it easier to embrace a more rational approach to their own mobility needs when becoming an adult.

Successful school mobility management rests on three columns:

• Infrastructure and traffic rules for safe, environmentally friendly mobility by foot, bike, bus and train,

• Traffic education and mobility training that conveys all the relevant aspects of mobility in a continuous manner suitable for each respective age group and

• Organisation and information that permits the successful cooperation of all stakeholders to enable an effective transfer of necessary knowledge.

Approaches to solving these issues include setting up parent stopping places that channel parents on the school run, fostering cooperation between schools and local public transport companies, creating timetables which map out the way to school or walking school buses. Major objectives are to firmly establish the issue in the long term and encourage the networking of all players at local and regional level.

»Conscious mobility behaviour must be part of the education process in schools and at home« Claudia Jäger

**Benefits**

- Creates better prerequisites for organizing school transport
- Contributes to greater traffic safety on the way to and from school
- Expands classic traffic education to include more mobility training
- Helps to make children more independent on their way to school
Organising and promoting efficient mobility during rush-hour traffic

Every day around one million commuters are on the move within the region. Two in three commuters use their own car and they mostly travel alone. Since 2006 work has been in progress to develop and implement sustainable mobility concepts for workplace locations in cooperation with employers, the ivm stakeholders, local public transport companies and the Rhine/Main Regional Transport Association. The region offers good prerequisites for this, with many workplace locations already being served by a comprehensive local public transport infrastructure.

As one of 15 model regions in the “effizient mobil” programme being run by the Federal Government, an important step has already been taken towards anchoring company mobility management within the region. Sustainable, innovative mobility concepts for employees have already been developed with 19 public and private sector employers, at 12 sites with a combined workforce of around 11,500 employees. Alongside introducing job tickets and improving local public transport connections, successful elements in changing the mobility behaviour of the workforce have also included encouraging more people to cycle and improving parking space management, both combined with intensive mobility consulting. This approach has resulted in the transfer of around 23,000 car kilometres per year to an alternative environment-friendly means of transport at these sites alone.

This experience has been utilised by the “South Hesse Network”, a cooperation between the Darmstadt-Dieburg local traffic organisation, Darmstadt city authorities, the district of Darmstadt-Dieburg, the CCI Rhine-Main-Neckar and the ivm, and has been incorporated into the “Mobility Management for Companies and Authorities” programme. These activities are also supported by other partners, such as the district of Groß-Gerau.

The whole process is accompanied by the ivm, as the regional coordination agency, which provides support for stakeholders in setting up and implementing their own municipal mobility management. The aim is for mobility management to become an integral part of municipal planning and an established aspect of location marketing and business development in cooperation with employers.

BENEFITS

- Fosters environmentally friendly mobility behaviour that protects the climate
- Relieves individual road traffic
- Makes a contribution towards fulfilling the targets of climate protection and pollution control
- Reduces individual and corporate mobility costs

»A conscious approach to mobility is part and parcel of safeguarding the future« Klaus Peter Schellhaas
The Hessentag is held every year over a ten-day period and in a different city each time. Around one million visitors are expected each year at what is one of the largest state fairs in the country. The Hessentag hosts are often smaller municipalities, who see it as a privilege to organise the event, but at the same time it requires extensive resources to live up to its unusual requirements. The special challenges facing the hosts particularly include traffic organisation and coping with the demand for parking spaces in the prevailing traffic infrastructure. A specific traffic concept has to be drawn up to meet the demands of the municipality concerned which makes it easy for visitors to get to the Hessentag by either bus, train, car or bike.

For several years now the ivm has supported the Hessentag hosts with their preparation by organising a local traffic working group. Here the planned traffic concept is discussed and coordinated by representatives from the town authorities, road transport authorities, local public transport associations and organisations, the police force and other involved institutions and authorities. Input is driven by the experience gained from previous events so that the planning process does not have to start from scratch every time, although planning principles must always be readjusted to local circumstances.

One important basis for planning is the traffic surveys that were carried out during previous Hessentag events. These give an indication of the travel behaviour of Hessentag visitors and can be used for future planning, detailing information on their choice of transport, the time spent at the site, their arrival and departure behaviour, the demand for parking spaces and the range of local public transport services needed. The experience gained each year with the Hessentag is incorporated into updates for the “Guideline on event traffic”, which had been originally compiled for Frankfurt am Main in the run-up to the 2006 World Cup and was successfully implemented for the fixtures held here.

**Benefits**

- Hessentag hosts benefit from the experience gained by previous hosts who have organised this event when planning their own traffic concept.
- The ivm assists by incorporating this experience directly into the development of traffic concepts.
Reinforcing public transport corridors, safeguarding accessibility

Accessibility is a key locational factor, with good mobility services being a prerequisite for sustainable mobility behaviour. Settlement development geared towards existing mobility services, particularly along railway lines, benefits greatly from the accessibility advantages offered by these services. One example of how to proceed with an appropriate coordination of settlement and traffic development has been illustrated along the Taunusbahn corridor, in the form of successful pilot projects implemented in cooperation with the local municipalities, the Hochtaunus Public Transport Association, the Hochtaunus district, the Rhine/Main Regional Transport Association and the Regional Authority Frankfurt Rhine/Main.

Local mobility concepts have created attractive connections to and from the station for residents and travellers. Park + Ride, Bike + Ride, corresponding bus routes and alternative mobility services link residential areas, even the remoter ones, to the railway corridor. This cultivates potential demand for the railways and helps safeguard mobility services in the long term against a backdrop of demographic change. Within the framework of location marketing, on-going mobility management also helps the successful communication of the advantages offered by good local public transport services and their existing accessibility qualities.

This strategy requires a consistent integration of regional transport services, location development and mobility behaviour and can only be successfully achieved by actively incorporating all players at regional and local level.

In order to manage the challenges of demographic change and shifting settlement structures the whole region needs to embrace concepts of this nature. The ivm supports its stakeholders in the development of such integrated approaches and offers to act as a moderator during implementation processes, providing the methodical principles for appraising specific locations in terms of their mobility aspects.

Urban planning must be increasingly geared towards the accessibility concept of local public transport« Robert Hohmann
Mobility needs infrastructure and also more efficient utilisation

>Horst Schneider

**Mobility Master Plan for the Frankfurt RhineMain region**

The Frankfurt RhineMain region has a first-rate traffic infrastructure that has made a valuable contribution to the economic development of this metropolitan region. Maintaining and further expanding this infrastructure is one of the key tasks in safeguarding future sustainable mobility. At the same time the region is facing major challenges, including controlling air pollution, demographic and social changes which create new mobility needs, increasing mobility costs and the limited funds available to expand and maintain the traffic infrastructure. This is then the setting in which new concepts to sustain the high quality of mobility within the Frankfurt RhineMain region are needed.

The Mobility Master Plan contains suggestions for setting priorities to expand the road and rail infrastructure, for obtaining the maximum effect for mobility within the region when taking into account the cost factors that are involved, as well as looking at which measures can be adopted along sustainability lines to encourage a more efficient utilisation of existing mobility services.

More than 70 planned and worthwhile traffic infrastructure measures have been assessed using a specially developed method which ascertains a cost-benefit quotient for each measure and thus acts as a benchmark when prioritising them in terms of their efficacy for mobility in the region.

The Mobility Master Plan also contains an extensive catalogue of measures that have the potential to encourage a more efficient utilisation of available mobility services and foster more environmentally friendly mobility behaviour. The range of measures extends from temporarily opening up the hard shoulder on the region’s motorways to the promotion of cycling as a means of transport, alongside dynamic traffic information systems and car pooling solutions. The successful deployment of these measures significantly depends on generating a greater awareness of general approaches to mobility.

**Benefits**

- Prioritises expansion measures for traffic infrastructure as an important basis for decision-making
- The catalogue of measures for a greater efficient utilisation of existing mobility services offers the potential for more economical and ecological mobility behaviour.
Mobility at a glance: the ivm survey of regional mobility data

Mobility is one of society’s basic needs and a vital lifestyle prerequisite. This is especially revealed in transitional situations, particularly when moving to another city, as this often leads to changes in mobility behaviour. An efficient, environmentally friendly range of mobility services directly enhances the quality of life and economic development of the region.

An on-going development of mobility services, in line with these demands, requires knowledge about individual mobility behaviour and the mobility needs of the population in general. Accordingly, regular surveys of traffic behaviour are necessary. In 2002 and once again in 2008 the Federal Ministry of Transport, Building and Urban Affairs carried out the household survey on mobility “Mobilität in Deutschland – MiD”. In cooperation with regional partners, the ivm funded an augmentation of this survey in the Frankfurt RhineMain region. This provided sound data as a basis for traffic planning and political decisions at local, regional and state level. A comparison of this data with the national results also provided important findings about the special situation here in this region.

This data has also been supplemented by the Mobility Panel conducted by the ivm since 2007. Selected households are asked once a year to monitor their mobility behaviour for a whole week, over a three-year period. In addition, each year additional households are chosen on a representative basis to gain further mobility data over and beyond these three years. The longitudinal section provided by the mobility panel provides valuable information about changes in mobility behaviour as a result of changed living conditions or life stages. This includes changes from studying to working or the purchase of an (additional) car, together with changes in mobility behaviour as a result of increasing mobility costs or changes in a household’s income.

»Knowledge about mobility behaviour is the key to sustainable mobility planning«  Prof. Martin Lanzendorf

Benefits

- Mobility data provides an important basis for planning and designing the range of mobility services needed in the Frankfurt RhineMain region.

- Mobility data gives important indications of changes in mobility behaviour and is thus a significant basis for decisions regarding traffic policy.
The reaction of the ivm stakeholders to the successes that have been achieved so far indicate a broad acceptance of its role and an expectation that it will continue to focus primarily on the interests of local authorities. This aspect does not preclude any further on-going development of the ivm as there will always be new challenges to be met as a result of social changes and further increases in ecological demands, such as the White Paper of the European Commission and the Clean Air Directives. It is up to European cities themselves to see how they fulfil these stipulations in terms of air pollution limit values, yet one thing is certain, there is no one single, ideal solution. The only way to be successful is to combine a greater number of smaller measures towards a common goal.

The synergetic effects necessary to achieve these ambitious targets can only be generated by pooling the region’s expertise and adopting a joint, coordinated approach. The cooperation between the ivm, the Rhine Main Transport Authority and the Hessian Road and Transport Authority in the Mobility Centre of Excellence (kcm) is a first step in the right direction which now must be followed by further concrete measures to secure this joint procedure. This cooperation is the foundation stone for a more highly integrated and intermodal approach to mobility and traffic that is capable of fulfilling the region’s demands, in terms of cross-traffic mobility, while taking into account the growing multi-modality of the region’s population.

The “House of Logistics and Mobility” (HOLM), founded in Gateway Gardens, serves to foster a shared view of passenger and freight transport. This aspect of mobility will have an increasingly important role to play in the future when making shared use of traffic infrastructures and its resulting bilateral effects on the mobility of passengers and freight, especially with expected huge increases in freight transport. In this context, the kcm will act as the crystallisation point for a mobility cluster that is intended to work closely together with both science and industry to produce viable solutions geared at safeguarding high quality, sustainable mobility for the local authorities in the region.

PROSPECTS FOR THE IVM
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