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Mobility Management in Germany: A broadening bottom-up approach

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Content

1. The position of MM in the National, Regional and Local Policy

1.1 Variety of actors developing MM in Germany

In Germany mobility management has been developed primarily at the local level by actors like local authorities, Public Transport and other companies, hospitals, schools, citizens groups, environmental or cyclist associations and/or labour unions. This decentralised development reflects the strong position of the local level in Germany. MM in Germany is created by a diversity of actors, not primarily by the authorities at the different state levels.

The first mobility centre in Germany started its work 1991 in Hameln within the European project DRIVE (LÖCKER et.al. 1998). Many of the local MM activities took place within projects funded on the European, Federal or Federal State level and/or have been set off by municipalities, PT companies and NGOs.

MM is neither a common element of the Federal nor of the Federal States' transport policy. During the last years the Federal transport ministry (BMVBS) as well as the Federal research ministry (BMBF) financed several R&D projects on MM. At the level of Federal States there are also several activities like campaigns, contests or demonstration projects, e.g. in North Rhine-Westphalia within an Action Programme Environment and Health (Aktionsprogramm Umwelt und Gesundheit – APUG). But there is neither an elaborated MM policy nor a MM programme at the Federal or Federal State level.

Nevertheless there are many policy areas at the Federal or Federal State level which have an overlap with MM: Public Transport, walking and cycling, CarSharing and CarPooling, inter- and multimodal solutions like bike+ride or park+ride, new information solutions and ticketing strategies, etc. These policies include elements of MM strategies like information, organisation, campaigning or marketing under the overall objective of sustainable transport, pursuit the aim of sustainability and can be subsumed under MM.

At the local level there has been a continuous development of implementing and broadening MM. It started with mobility centres. In the following corporate mobility management (CMM), MM for schools and in tourism as well as in the housing sector became more and more important. Currently the integration of MM in urban planning is a topic which is getting more attention.

1.2 Definition of MM

Within the community in Germany there is – over a wide range – a common understanding of MM which follows the definitions developed in the basic European projects MOMENTUM and MOSAIC. MM is understood as covering measures like information, organisation and offering new services with the objective sustainable transport. People dealing with MM usually see the need for combining MM measures with other kinds of measures like planning, construction and operating infrastructure, legal and regulatory measures as well as fiscal and financial measures.

During the last years the need for co-operation in MM policies as well as creating win-win-solutions for individuals or organisations and the society got more and more attention.

In the past the polarity between MM as a "soft" policy and transport management as a more technical oriented approach was underlined. Currently the need for integrating these different aspects is acknowledged.

2.   Institutional framework in Germany for MM

As described before in general there is neither a national/Federal nor a regional/Federal State mobility management policy in Germany. Such a policy would include to adapt the framework conditions to the needs of a successful MM (e.g. to develop supporting tax rules, abolish legal barriers, ensure a co-funding, etc.), a public communication to motivate actors like municipalities, companies and organisations, schools, etc., to develop the field and provide training opportunities, etc. etc. This does not happen by now. There are only single initiatives or activities to support a development in MM.

First of all there was and still is a funding of R&D projects at the national and the regional level. With the background of European projects these projects helped to develop the field and to get best practise as a basis for a further development.

Second, there are strong elements of a sustainable transport policy, e.g. towards cycling, PT or inter- and multimodality, which include MM elements and which are subsumed under MM in other countries. These policies are components which are used at the local level or by stakeholders like companies and other organisations or PT companies and other mobility service providers for their MM.

Third, there exist single policy elements under the label MM at the national and regional level. There are e.g. initiatives of the Federal Environmental Agency (Umweltbundesamt UBA), which acts within the competence of the Federal ministry of environment, to campaign MM, to develop suitable information material and to identify needs for action e.g. concerning the framework conditions (http://www.umweltbundesamt.de/verkehr/index.htm). At the Federal state level there have been initiatives e.g. in North Rhine-Westphalia to develop Corporate MM projects or MM at schools. In this respect there are e.g. initiatives which combine mobility management with environment and health. Currently a contest has been launched under the label GesundMobil to foster attention to this topic and to motivate stakeholders to develop and implement MM. A second important policy element is the co-funding of ILS website http://www.mobilitaetsmanagement.nrw.de/ by the NRW ministry of transport, the only information platform in Germany which covers the relevant issues of MM and provides information about projects and policies.

An expert survey undertaken in a national project on CMM by ILS and partners came to the result that missing consciousness/awareness at all policy levels is the main barrier for a positive MM development. Currently MM indeed is not a usual element of transport and mobility policy.

Nevertheless many things are happening in the field of MM and we see a broadening bottom up approach. But it will be more successful when the state level overtakes coordination, develops a programme on MM, accepts that positive impacts of an approach like MM cannot be expected without resources and sends the signal from the top that investing in MM makes sense.

3. Important MM fields in Germany

3.1 Mobility centres

Mobility centres (MCs) in passenger transport provide local or regional services like multimodal information and advice, offering PT tickets, organising demand-oriented PT, renting bicycles, etc. In addition, nowadays some MCs offer tourism and recreation information or information for disabled people and provide consulting for schools or companies. The portfolio of MC services is rather different between the various mobility centres. Initiatives in the past to develop a corporate design for all MCs in Germany were not successful in the end.

In the 1990ies MCs boomed in Germany. In 2005 there were about 50 mobility centres and about 20 PT service centres at work (www.mobilitaetsmanagement.nrw.de). Due to financing problems and because it is impossible to cover the running costs, MCs currently are primarily organised and run by single PT companies or by regional PT Associations (Verkehrsverbünde). Nevertheless, due to the ageing society and increasing importance of inter- and multimodal solutions the need for better information, organisations and advice or consulting is increasing.

3.2 Corporate mobility management

Corporate (or Company) MM (CMM) is understood as a site oriented MM of companies, authorities, administrations and other kinds of organisations. In Germany something like mobility management for companies (but which was not called CMM) was rather usual in the 1950ies and 1960ies in order to ensure the accessibility of the company sites for the employees. On the basis of transport demand management (TDM) experiences in the US an approach of company mobility management arose in the 1990ies. In the mid of the 1990ies the NGO VCD (Verkehrsclub Deutschland) worked out a first state-of-the-art study on this topic for the UBA (VCD 1996). Innovative companies were e.g. Lufthansa Technik Hamburg or Hering-Bau, Burbach, all in all primarily bigger companies. Several projects have been implemented and guidelines for CMM have been developed.

Meanwhile the approach of CMM has been implemented by a lot of different companies as well as public or private organisations in Germany. Cities which have been innovators in this field were e.g. Bielefeld and Münster, but currently also e.g. Munich, Freiburg and Dresden.

A survey within a recent national research project on CMM in Germany[1] shows the variety of implemented measures as well as the level of implementation. Concerning commuting, a high level of implementation can be found, e.g. for cycle parking, time organisation and coat room/showers. Additionally, employers are interested e.g. in implementing job tickets and carpooling. More than 40 % of the organisations studied offer their employees the private use of company cars – with regard to sustainability a counterproductive measure.[2]

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[1] Conducted for the Federal transport ministry in Germany.

[2] To avoid misunderstandings it should be noticed that there is no information about how many employees in these organisations have been offered the private usage of company cars.

3.3 Mobility management at hospitals

MM for hospitals is an interesting special case of CMM. Due to their mostly integrated sites in or near city centres hospitals are often confronted with huge accessibility and parking problems. Employees as well as patients, visitors and goods transport or delivery services compete for scare space. There are several good practice solutions in this field in Germany; one of them is the big hospital in Bielefeld-Bethel which started CMM already in 1996. It is located in a quarter of the city where about 10,000 people live and work on an area of about 3 square-km. As a result of an analysis of the state of problems, the hospital started the development and implementation of a broad CMM concept. Main elements are PT (job tickets, a new bus line, mobility advisory and consulting services, demand oriented supply on weekends, etc.), cycling, area-wide parking regulation and car sharing in close co-operation with the city of Bielefeld and the PT company moBiel (von der Gracht 2006).

3.4 Mobility management at schools

On the basis of a sharpened public perception of road safety problems especially for children and the knowledge that early learning sustainable behaviour as a child will influence mobility behaviour of the later adults, the Board of school ministers (Kultusministerkonferenz) decided in 1996 to establish mobility education in schools in Germany. This can be understood as a starting point for MM at schools in German schools. Forerunner Federal States (e.g. Hamburg) and by and by other Federal States decreed rules for their schools. Projects e.g. at the European or national level (e.g. PROVIDER, MOBINET) helped to increase the public consciousness and offered measures like walking busses or cycling pools. Currently lots of local or school initiatives all over Germany are implementing MM. This development has been supported by initiatives of NGOs (e.g. VCD), research projects at the national level, information platforms (e.g. www.mobilitaetsmanagement.nrw.de) and regional implementation efforts e.g. in North Rhine-Westphalia while implementing measures of the road safety programme.

The implementing of MM for pupils/students at the secondary school level is of specific interest. These young people of 15 or 16 years are primarily interested in getting a motor scooter and a driving license. A research project conducted by ILS for the Federal transport ministry worked out a deeper insight in problems which schools have to motivate these young people for sustainable transport, but also in opportunities how these people could be reached (for more details see www.mobilitaetsmanagement.nrw.de).

3.5 MM in the field of housing

The home residence where people live is the most important origin and destination of trips. MM and mobility services offered there can be an important lever point to influence mobility behaviour. In this way people can be supported to live in car-free housing areas (http://www.wohnen-plus-mobilitaet.nrw.de/wohnen_ohne_auto/index.html).

Mobility services offered to residents by housing companies in close co-operation with PT companies, CarSharing and other service providers and cities can be a means to reduce single-use of cars. In Germany there are several housing companies which offer such services. Main elements of these service packages are CarSharing and rebated resident's tickets (Mietertickets), but there are also bicycle parking lots with – in some cases – repair services, lending bicycles or trolleys, delivery services, neighbourhood busses, etc. (cf. http://www.wohnen-plus-mobilitaet.nrw.de/mob_service/index.html).

MM in the field of housing has not yet a broad approach in Germany. Housing companies are far too often interested in the construction of parking lots instead of offering services to support sustainable mobility behaviour. Demonstrations and evaluation projects can help to diffuse the approach farer (c.f. the current project ADD HOME co-financed by the European Commission).

3.6   MM in tourism / recreation

While MM for companies and schools is already quite common in research and practice, Mobility Management in tourism is a new field. Main reason is that leisure travel is more difficult to handle than e.g. commuter travel (e.g. difficult to bundle for PT). Like MM in general, the level of the State and Federal States plays hardly any role for MM in tourism. Public actors are mostly local administrations, important stakeholders also transport companies like German Rail and transport related environment organisations (e.g. Verkehrsclub Deutschland, VCD). "Fahrtziel Natur" is an offer of German Rail in co-operation with four important German environmental organisations that aims on experiencing attractive nature destinations. The tourists travel by PT and make use of hiking and cycling to come to attractive destinations. Information like routing and schedules are available on an internet platform (http://www.bahn.de/regional/view/bundesweit/index_fzn.shtml). "Reiselust" – subtitled with "new ways into holiday" – is performed by the VCD and aims on the 20 percent of Germany's population that does not own a car. On a long-term scale in 10 tourist regions all over Germany car free holidays should be fostered by certain measures (http://www.reiselust-deutschland.de/).

Another important aspect is information. First, there are tourist information points that are operated and financed on the county level (Landkreis) or comparable. Second, especially larger cities run tourist offices (Fremdenverkehrsvereine) which pass on information about tourism and transportation to visitors and travellers. Third, few mobility centres provide tourist information as well.

Several research projects on MM in tourism have been launched in the last years. Some of them were financed by the German research ministry. Subject of these projects was strengthening the attractiveness of rural regions for tourists, offering attractive intermodal supplies (e.g. railway line with special offers for bikers, skaters), strengthening of tourism and public transport as well as innovative services via mobile phone, internet and PDA, especially for pedestrians, cyclists and disabled people and/or developing and testing a target group specific mobility management concept for one day or short trips.[3]

There are offers for vacation trips which allow using PT instead of the own car. With Rail and Fly ("Der Zug zum Flug") it is possible to travel from every railway station in Germany to every airport – using far-distance trains with included seat reservation. AIRail, a co-operation of Germain Rail, Lufthansa and the Frankfurt airport operating company Fraport, allows travelling from Cologne or Stuttgart central station to Frankfurt airport with check-in and registration of luggage in both railway stations (http://www.bahn.de/p/view/mobilitaet/flug/airrail.shtml).

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[3]   Projects were MobiTour, ArMont and MobiHarz.

3.7 Integration of MM in planning

For MM experts it is obvious that including MM in the early beginning of town planning processes is a most favourable approach to make MM highly effective. Otherwise MM is only an element of an end-of-pipe strategy – MM has often to compensate accessibility problems or starts late after mobility behaviour (especially using the own car) became usual at a new site. Currently two projects dealing with this topic have been launched: the European project MAX and the German project on integration of MM in urban planning; co-financed by the Federal ministry of transport.

There are already experiences in this field in Germany, most notably from car-free housing projects in the 1990ies where the right location, the accessibility for sustainable modes and the need for complementary services to enable residents to live without an own car came up (http://www.wohnen-plus-mobilitaet.nrw.de/mob_service/index.html). Currently there are cities and regions which try to integrate MM in planning processes, e.g. Dortmund, Aachen and the Rhine-Main region.

3.8 Cycling

The Federal transportation ministry set up the National Cycling Plan (Nationaler Radverkehrsplan) 2002-2012. It aims to show opportunities to develop and strengthen cycling as part of a sustainable transport system by creating implementation strategies as well as recommended actions to create a bicycle-friendly climate in Germany (BMVBW 2002). The Federal government sees itself as a catalyst and moderator in fostering cycling whereas (due to federalism) the main responsibility lies at the regional and local level. As an important success factor, framework conditions should be improved to plan and implement measures for fostering bicycle use within a complete system. To tap more of the potential of cycling in Germany learning from other European countries e.g. the Netherlands seemed to be helpful.

An amount of Federal state programmes as well as local activities shows the role of North Rhine-Westphalia as the forerunner of all German Federal states in fostering bicycle use. Since 1978 the Federal state spends money in bikeway infrastructure and other cycling facilities. Since then the number of programmes and initiatives was successively raised. In 1993 the network of bicycle-friendly cities in North Rhine-Westphalia (AG "Fahrradfreundlicher Städte und Gemeinden in NRW") was founded. In September 2004 the network included 32 cities and 4 counties. These are forerunners with a high share of cycling and/or the will to increase it substantially. The city of Münster e.g. has a cycling share of more than 40 % of all trips. Four years later the programme "100 bicycle stations in NRW" ("100 Fahrradstationen in NRW"; MVEL 2004a) was launched. Security of parked bicycles is good in Germany, with Radstationen existing in many German cities at the interchanges. The Radstation in Münster offers parking facilities for approximately 3,300 bicycles as well as additional services like a repair service and bike rental. In September 2004 in North Rhine-Westphalia 51 bicycle stations existed and more are expected in the future. In 2002 the Federal state started to install a country-wide uniform signposting system to help cyclist to easily find shortest and most beautiful routes (MVEL 2004b). A web based route finder for cycling has been installed which can be used before cycling tours but also on-tour by using GPS on mobile PDAs. It includes not only bicycle routes but also interchanges especially to PT (http://www.radroutenplaner.nrw.de/).[4]

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[4]   More information is available at http://www.fahrradfreundlich.nrw.de/.

Other federal states are also developing signpost systems and web based cycling route finders, e.g. Bavaria. There are always specific regions and cities where cycling has traditionally a big share of trips due to a particular mobility culture, e.g. the North-West of Germany near the Netherlands or cities like Münster, Freiburg or Bremen. Current examples show that fostering cycling can even be successful also if there is only a small share of cycling and framework conditions are poor. Leipzig offers a very good example in this respect. This city has successfully increased the modal share of cycling from 5 % in 1991 to 13 % in 1999. The city implemented in close co-operation with stakeholders like the cyclist association (ADFC) a bundle of measures (plans, install a tool to assess impacts of transport measures to cycling, traffic calming, reconstruction of crossings, public awareness measures, designing a share of city budget to cycling measures, etc.) (NAPOLI 2004) This way the city was able to exploit cycling-friendly framework conditions like a flat topography, a compact and dense urban structure, a green belt surrounding the city centre and a high number of students.

3.9 CarPooling

The commuter network North Rhine-Westphalia (Pendlernetz NRW) is introduced in many cities and counties in the Federal state, today 35 counties and big cities (Bürgerservice Pendlernetz NRW 2005) The important PR tasks are supported by the Ministry for environment of North Rhine-Westphalia. The objectives are to reduce costs for the commuters as well as parking space for the companies in order to relieve the road system from congestion and to shelter the environment.

The Pendlernetz was created in 2002 mainly driven by local agenda working groups. Financial contributions of the cities and counties as well as funding from the Federal state enabled to build up the web based matching system and the operating costs. The main focus of the project is on the high number of commuters (about 3.5 Mio people in North Rhine-Westphalia every day) and the fact that 80 percent of them use their private car. While for every trip on average 1.2 people sit in one car this rate is about 1.04 people per car on commuter trips. Increasing this rate is the main objective. Currently there are attempts to broaden the system e.g. to include event traffic (NAPOLI 2004; http://www.nrw.pendlernetz.de/).

Recently the Pendlernetz was further extended so that networks exist in the agglomerations Stuttgart and Rhine-Main (Bürgerservice Pendlernetz NRW 2005).

3.10 CarSharing

According to a recent study the potential of CarSharing in Germany is estimated about 1.5 million users although only around 100,000 people per day use in fact CarSharing nowadays (Öko-Institut 2004). The most important reason for this restrained growth is a lack of knowledge. In Germany, CarSharing is offered in 260 cities by 1,450 CarSharing stations. The number of CarSharing users is increasing dynamically (+14.5 % from 2006 to 2007). There are negotiations between CarSharing providers and local transportation companies for establishing a better integration into the public transport system. Strengthen the role of CarSharing is furthermore the aim of an amendment of the Federal Road Traffic Act which should allow city authorities to assign parking spaces for CarSharing vehicles in public road space[5] (bcs 2007).

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[5]   It is not yet sure whether the Board of federal states transport ministers will agree on this.

In North Rhine-Westphalia 14 CarSharing providers run 285 CarSharing stations in 43 cities. Since 2002 DB CarSharing is provided by a subsidiary company of the German Rail by a franchise system together with other CarSharing companies. Generally, CarSharing is an offer which can be found mainly in large cities: 83 % of all cities in North Rhine-Westphalia with more than 100,000 inhabitants have one or more CarSharing station/s related to a high population density. This ratio declines with a declining number of inhabitants so that only one of 216 cities with less than 25,000 inhabitants has a CarSharing offer.

The inclusion of CarSharing in CMM is promising. E.g. the city administration of Münster established CarSharing for own business trips and abolished company cars and reimbursement of private car usage. Main impacts were a strong reduction of vehicle mileage and 120,000 € saved every year. (LOGIBALL)

3.11   Intermodal and multimodal mobility and integrated products

Alternatives to (single) car usage need an optimised supply of passenger transportation over all elements of the chain of a trip from door to door and a complementary supply of information, ticketing, luggage handling etc. Important is the design of respective networks and interchanges. Successful intermodal as well as multimodal travelling needs MM. Therefore MM can be understood as a "sister" of inter- and multimodality.

According to a study conducted for the European Commission in 2004 intermodality in North-West Europe is at a high level of development (http://www.ils-shop.nrw.de/cgi-bin/ilsos/070207.html). This assessment is also right concerning Germany.

Integration of transport services

The success of intermodal transport solutions (not only) in passenger transport depends very much on reliable opportunities to switch between modes. To ensure reliability within the PT system North Rhine-Westphalia implemented integrated synchronised timetables (Integraler Taktfahrplan) for the rail system with attractive connections at the interchange stations. This system was first developed in 1995 and has been improved step by step. (Agentur Nahverkehr NRW 2005)

Information

In Germany, almost all local and regional public transport connections have been integrated into the door-to-door information system HAFAS used by German Rail and based on an agreement on data exchange. German Rail's transport information system is well accepted and used by many long-distance passengers, and therefore can be seen as the most important German passenger information systems. A rather good integration of long distance and regional/urban travel information including walking and public transport is already achieved with this system. It includes maps and enables a comparison of travel costs by different modes (e.g. rail, car, bicycle), which is a feature that can rarely be found elsewhere in Europe. A comparison regarding environmental impacts of a journey by rail and car is also provided. The system works well but does not supply information about fares for all elements of the travel chain yet. The system used in Germany is a version of the HAFAS software which has been developed over years and has achieved quite a sophisticated status (cf. DB 2004, Fachportal Nahverkehr 2004).

There are efforts to farer improve these information systems e.g. by including real time information which can be used on trip. At the regional level, PT Associations offer also door-to-door information

(addresses, stop names), as well the "Smart number for bus and rail" (Die schlaue Nummer für Bus und Bahn).

The Ruhrpilot is a new way of real time information implemented in the Ruhr agglomeration, because it combines data of all transport modes and performs them on one platform. 500 control points measure the road loading and give information about congestions. Data of the German Rail and other local transport companies give information about delays in public transport. Both delays and congestions are taken into account for the routing which shows simultaneously trips via car and PT. All these information can be obtained via internet, mobile phone or navigation system. Ruhrpilot is a project run by public private partnership (Projekt Ruhr 2005).

Integrated ticketing

Like in other European countries efforts have made in the field of electronic ticketing like smart cards. Such systems not only make travelling in a travel chain more convenient for the user but also make it easier to obtain necessary data for the task of revenue sharing, which is a critical point in co-operation between different transport operators.

Since years standardisation efforts are made to push the introduction of these systems. The just started European LINK project will provide a forum to coordinate these activities at the European level.

Integrated products

There are several solutions in Germany which combine products. A good example of an integrated mobility package that spans over two modes of transport is the "Bremer Karte Plus" which is multifunctional. The card enables electronic payment of public transport tickets, which are directly deducted from the multifunctional chip card and is at the same time an electronic key for car sharing vehicles, which makes it suitable for intermodal trips. Additionally the electronic payment function of the card can also serve shopping activities (BSAG 2004).

The PT company of Hannover (Üstra) offers "mobility packages". Several offers and services are integrated in one chip card. One frame contract allows access at reduced rates to PT, train, car-sharing, taxi, bicycle rent and food delivery services ("HannoverMobil" http://www.gvh.de/hannovermobil.html).

A good example in Germany of an interoperable transport system between urban and national rail (tram-train) exists in Karlsruhe, where urban trams and regional light rail can run on the same railway tracks. This links the city centre with the outlying region without the previously needed change at the main railway station that is located outside the city centre. This so-called Karlsruher Model has been quite successful and can be found in use in other cities as well.

Another innovative service offered in Germany is Call-a-bike, undertaken by DB Rent, which is available in some major cities such as Berlin, Frankfurt, Cologne and Munich. Bicycles rental is offered to passengers of German Rail, particularly on long-distance trips. For example it is possible to rent a bicycle at a major train station in Berlin and take it one way to the destination, leaving it at a crossroad near the destination within a defined area, usually the inner city. One needs just to book it and give the information where the bicycle has been left so that it can be used again. Call-a-bike currently has around 50,000 registered clients.

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