# Agenda 21 for Urban Nobility



United Cities and Local Governments Cités et Gouvernements Locaux Unis Ciudades y Gobiernos Locales Unidos





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Dear members, partiers and Colleagues,

the importance of cities as living space for people is growing. More than half of the world population today lives in cities. Cities are the motor of economic and social development. They are also the places where the ecological and social challenges of the 21st century are particularly accumulating. Part of these challenges are the growing traffic and the accessibility of our cities.

Stuttgart has a long tradition in mobility. The city was founded more than thousand years ago as a stud farm ("Stutengarten"). Over 120 years ago the first automobile worldwide was invented in Stuttgart. Today Stuttgart is a global competence centre for mobility thanks to professional schools, universities, research and development institutions which are closely linked with many leading companies notable Daimler, Mercedes, Porsche and Bosch.

Shaping transportation and traffic in our cities is an essential responsibility of cities. To better cope with these tasks the United Cities and Local Governments (UCLG) set up the Urban Mobility Committee. UCLG is representing more than 3 billion citizens in 170.000 local authorities from over 130 countries. I have the honour to be chairman of this Committee and president of the European Section of UCLG.

Started nine years ago as an European- Latin-American URB-AL-Network, Cities for Mobility is today a global network with over 500 members from 70 countries including universities, companies and international organisations.

With its Agenda 21 for Urban Mobility we will contribute to developing sustainable mobility: Socially inclusive, environmentally-friendly and economy-promoting. In this endeavour we cooperate closely with experts from universities, research institutions, international organisations, NGOs and the private sector.



Our network serves as platform where local governments can present their good practices, problems and initiatives. The Agenda 21 for Urban Mobility describes the future trends, challenges and tasks in the field of urban mobility and presents a series of good practices from all over the world.

I would like to thank all our partners, members and colleagues for the fruitful cooperation and I am looking forward to a successful working together.

Your sincerely Which Schurch

Dr. Wolfgang Schuster Mayor of Stuttgart Vice-President of UCLG

# Challenges for urban mobility

#### We are aware, that

- 1. all people are equally entitled to mobility since it is a basis for the realization of most other basic rights;
- the eight Millennium Development Goals of the United Nations only can be achieved if people have adequate and payable access to mobility services;
- **3.** urban mobility plays a fundamental role in achieving the favorable economic, social, ecological and cultural development of a community or a large urban area;
- urban transportation systems particularly in many poorer countries do not yet satisfy the demands on a safe, healthy, socially equitable and environmentally compatible supply of mobility services to people and thus constitute an obstacle to development;
- 5. the transportation systems of today, especially the extensive use of privately owned vehicles in most cities of the industrial countries, currently are not sustainable owing to their high consumption of non-renewable resources and their significant emissions;



- **6.** the gap is becoming more difficult between the increasing mobility needs of a strongly growing urban population, on the one hand, and a foreseeable scarcity and rise in price of fossil energy sources on the other;
- new solutions involving new fuels and sources of energy for growing mobility have to be developed in agreement with social, ecological and economic requirements;
- **8.** alternative non-fossil fuels only are a contribution to sustainable solutions if they do not compete with the preservation of the rainforests and the securing of regional food production;
- **9.** sustainable mobility models in the cities of the world must rely on the optimal utilization of all technological, planning and organizational resources, but also are dependent on the development of a sustainable mobility culture by transportation users;
- **10.** cooperations of cities within the scope of the work of UCLG can lead to the more rapid spread of exemplary solutions, to greater sustainability of the urban transportation systems and consequently to a fairer globalization in our One World.

# Future trends for urban mobility

The development of traffic and mobility reflects the social, economic and technical trends in our cities. These are influenced by **ten mega-trends**:

- 1. The population of our cities is constantly growing both for demographic reasons and owing to the continued rural exodus.
- 2. The cities are centers of economic growth and thus of individual prosperity which lead to a growing differentiation in lifestyles and mobility requirements.
- **3.** The growing individualization of urban society coupled with a growing number of small households leads to more traffic.
- **4.** Rising land prices and rising rents in the centers of conurbations have the consequence that rents for living space rise disproportionately, the lower and middle classes as well as families with children migrate from the centers, and the number of commuters constantly grows.
- **5.** The cities are developing more and more into metropolitan regions within which the distances between homes, workplaces and recreational facilities increase.



- **6.** An increasing geographic flexibility of employees ("modern nomadism") makes the streams of commuters grow between cities too.
- 7. New forms of shopping by car, especially in large malls, and the use of recreational facilities on the verges of cities generate new streams of traffic.
- **8.** Increasing e-Commerce, the use of the internet, and other forms of a media-based shopping culture, for example meals on wheels, result in growing individual delivery operations.
- **9.** The "just-in-time" delivery of physical products and services results in the growing transport of goods and people in our cities.
- **10.** People's increasing speed orientation leads to a high demand for mobility services on road and rail, on the water and in the air.

As the **consequences of these mega-trends**, ever more people are moving ever more and ever faster. More and more goods are being delivered to more and more places just-in-time.

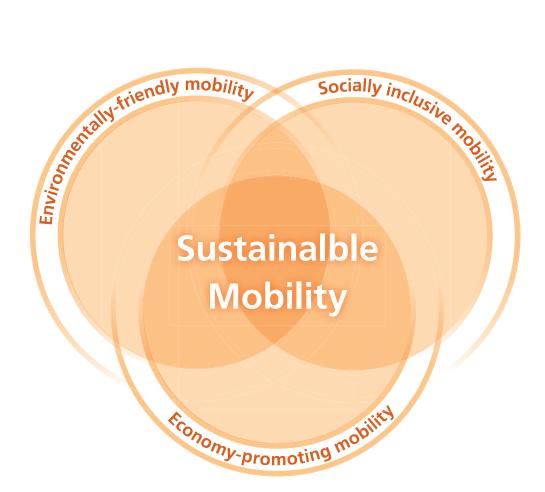
The fast growth of transport services worldwide leads to higher consumption of resources, growing damage to the environment and global warming. Political structures, legal obstacles, lack of funds, and lack of awareness in the population prevent the changes required to organize the growing mobility in our cities in a way which is socially inclusive, healthy, safe, ecologically acceptable and economically efficient.

# **Objectives for urban mobility**

To solve the growing problems we need a comprehensive and integrated approach with three major goals for:

- » socially inclusive mobility
- » environmentally friendly
- » economy promoting mobility

The objectives are moving targets. They are depending on different living conditions, economic possibilities and financial resources. To improve the situation every city should create a master plan for mobility, integrated in the overall planning for the development of the city. To facilitate this work we add some guidelines with measures and best practice examples as an annex to this agenda.



# Tasks for urban mobility

#### 1. Socially inclusive mobility

Mobility is a basic condition for participating in working life, for engaging in social, cultural and political activities, and for availing educational opportunities. Non-participation in mobility leads to social exclusion.

An important part of citizens have neither access to transportation nor the opportunity to escape the negative effects of growing traffic, above all environmental pollution and noise.

The cities want to ensure that all residents are able to share in mobility; that includes disabled persons, parents with small children, the sick and elderly, and poorer people. Mobility is socially inclusive only if it does not pose a substantial danger to the health of people. Health is endangered also by exhaust gases and noise, which often affect poorer sections of a city. For this reason we want to minimize the threats to the health of all people through noise reduction and air pollution control programs.

Mobility causes thousands of deaths and injuries especially children, old citizens, pedestrians and bikers every year. We want to increase the safety of transportation. This calls for education and training, community relations work, as well as traffic infrastructure measures in order to guarantee the prerequisites for safe local public transportation, safe private transportation, but also safe cycling and walking. This includes protection against crime in the streets and in mass transit systems.

#### 1.1 Enable all segments of the population to participate in local public transportation

We want to ensure that all segments of the population are able to participate in local public transportation and break down social, health-related or age-related barriers to urban mobility by

- ensuring mobility service of the same standard in all parts of the city;
- » assisting people whose mobility is restricted;
- » making fares socially acceptable and target grouporiented.

#### 1.2 Preserve and extend public infrastructure close to homes and jobs

We want to safeguard and extend public infrastructure especially in order to provide public and private services and everyday necessities to people close to where they live. This way we avoid not only unnecessary traffic flows, but also ensure the supply of people's needs (especially people with mobility restrictions) close to homes and jobs by



- decentralizing municipal facilities and services, offer them locally;
- » securing the supply of essential goods close to where people live;
- » extending public infrastructure towards jobs especially in industrial and commercial areas.

# **1.3** Shape demographic change in the area of mobility

We want to adapt urban transportation systems to the actual requirements of demographic change in our cities. In municipalities in the industrialized countries we want to make allowance for the special problems of older people. In the developing countries we want to give serious thought to the specific mobility needs of the younger generation which is still going to school and training by

- » extending the transport offers to all children and young people;
- » making allowance for the special needs of senior citizens.

#### 1.4 Enhance road safety

We want to enhance the safety of road traffic for both motorized and non-motorized road users by

- enabling safe private transportation through traffic guidance and control;
- » ensuring safe cycling and walking;
- » improving security in mass transit systems;
- » offering traffic education from childhood on in a systematic way.
- **1.5 Protect residential quarters and districts with recreational functions from noise and air pollution** We want to minimize the health hazards posed by exhaust gases and noise also in the poorer quarters of cities by
  - » reducing air pollution by traffic control measures;
  - » reducing traffic noise by special regulations and control measures.

The increasing mobility demands and the growing traffic in our cities call for new answers, also for ecological reasons. We want to make traffic planning an integral part of urban development planning in order to create a "city of short distances". We want to achieve an intelligent transportation mix with intermodal transport offers and make it easier to change to mass transit and to use bicycles.

2.1 Minimize traffic flows through integrated urban and traffic planning

We want to integrate the central concerns of traffic planning into urban development planning in order to avoid unnecessary traffic flows in the long term by

- integrating traffic planning as part of city development planning;
- » decentralizing supply facilities to become a "city of short distances";
- » providing links to public and private service facilities through intermodal transport offers.

#### 2.2 Encourage non-motorized and public transport

We want to speed up the shifting of traffic to nonmotorized and public transport in our cities to minimize energy expenditure and the finance required for urban mobility needs by

- » expanding mass transit;
- » making public transportation more attractive through comfort, safety and lliability;
- ensuring the safety of pedestrians for example by sidewalks;
- » improving the quality of cycleways;
- » networking the means of transportation by a better intermodality.

#### 2.3 Expand mobility management

We want to make better use of existing means of transportation by improving the efficiency of the traffic infrastructure and by improving the quality of information for the travelers. We will achieve these by

- developing area-based mobility management for each city district;
- expanding integrated mobility management through traffic guidance and mobility centers;
- » optimizing the management of stationary traffic, particularly the parking space management.

Active mobility management should help to better utilize the existing transport capacities and avoid traffic congestion.We want to encourage environmentally friendly technologies in order to reduce emissions and resource consumption, and we want to strengthen public awareness of sustainable mobility through education and information.

#### 2.4 Reduce fuel consumption and emissions

We want to reduce the consumption of fossil fuels and the emission of pollutants by developing a comprehensive and effective set of instruments consisting of restrictive measures, self-commitments, incentives as well as technological and infrastructural measures by

- » promoting the increased use of alternative fuels and drive system technologies;
- » supporting buses, trucks and cars which are fuelsaving and low-emission;
- applying monetary measures to control the demand for transportation locally through systems of mobility pricing.

# 2.5 Strengthen public awareness of sustainable mobility

We want to raise consciousness that the choice of transportation depends on the subjective view and economic possibilities but also on information about environmentally friendly alternatives by

- » promoting educational schemes and information offers about ecological impacts of traffic
- appreciating the environmentally friendly mobility culture through community relations work;
- developing positive incentives for an environmentally friendly mobility culture;
- » starting mobility education in kindergartens and schools.



#### 3. Economy-promoting mobility

Transportation is and remains the lifeline of cities. Our cities must be accessible from the outside by road and rail, through the air and on water. In the same way, urban districts and industrial areas within a community must be easily accessible. Traffic congestion and the temporal unpredictability are major impediments to positive economic development. We want to ensure that traffic conditions can be improved by efficient public transport to reach the working places and by better logistics for the transport of goods. We want to reduce the traffic in our cities by installing a modern traffic management and by better connecting the real mobility with virtual mobility through digital communication, through efficient information highways.

# 3.1 Create attractive and efficient transportation systems

We want to develop the urban transportation systems further as the central location factor for the local economy so that they can contribute efficiently and with longlasting effect to a dynamic local development by

- improving the accessibility of cities with different means of transportation;
- » ensuring the good accessibility of all city districts;
- » facilitating the accessibility of enterprise zones;
- » optimizing goods traffic within cities with a logistics concept.

#### 3.2 Ensure efficient mobility for people and goods

We want to optimize our urban transportation systems so that the mobility needed for economic activity can be efficiently realized on one hand by limiting traffic loads and simultaneously enhancing the quality of our cities as places to do business by

- » instituting programs to optimize the flow of traffic and to avoid congestion;
- » ensuring that places of work and training can be reached within a short time;
- guaranteeing adequate transport facilities and capacities for freight traffic;
- » encouraging company mobility management.

# 3.3 Coordinate the requirements of transportation with other forms of land use

We want to ensure that mobility-related demands on the use of urban land are compatible with other functions of a big city in order to maintain the attractiveness of our cities by

- » integrating traffic planning into urban planning and the planning of enterprise land use;
- improving the supply and management of parking space for shopping facilities, public and private services and events.

#### **3.4 Create efficient institutions for traffic control** We want to improve the networking of all central public and private institutions in the field of traffic control in order to effectively coordinate measures towards more efficient mobility management and reduce traffic loads by

- improving the efficiency of public administrative authorities;
- » improving the efficiency of public and private transit companies;
- » getting companies and institutions with high traffic demands better involved in traffic planning and urban planning.



# Networks and partners for urban mobility

To achieve the goals and implement the measures in the fields of action we are operating with many partners and networks.

#### » Networks within our cities

Many groups must be involved in the development of traffic plans in order to bring the diverse interests of the various urban districts into the political discussion and make the right decisions. That includes transport companies, cyclists' clubs, schools, the police and other authorities, scientific institutes in the transportation field, and last but not least civic associations and citizens who can be queried at local public hearings.

Participatory processes therefore should precede decisions on traffic planning as an element of overall urban planning.

#### » Networks of the cities

The challenges of urban mobility are basically similar in all cities. This makes the exchange of experience and Best Practice examples in networks worthwhile. The cities jointly search for innovative solutions and at the same time form a lobby on the national or international level also for the purpose of obtaining more financial resources for mobility tasks. These network functions can be performed on the national level by associations of cities; on the international level mainly by the UCLG through the Committee Urban Mobility. Their efforts are complemented by specialized organizations such as the Union Internationale des Transports Publics, (UITP, Brussels) and the global network "Cities for Mobility" with head office in Stuttgart.

#### » Cooperations with national and international partners

Cooperations with universities and scientific and research facilities are necessary, just as cooperations with private mobility companies, for the development and on-site testing of new solutions.

National governments and parliaments have to be won for legislative initiatives and the financial support of transportation projects.

Cooperations with international organizations will be facilitated by the assistance of UCLG. These organizations, particularly UNEP, UN-Habitat, UNESCO, UNACLA, EU and national and international donor organizations, need the cities as partners to implement their concrete aims and projects.

### **International partners**



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# Active participation in the UCLG committee urban mobility

As the united voice and world advocate of democratic local self-government, United Cities and Local Governments brings together the global networks of its three founding members – the International Union of Local Authorities, founded in 1913, the World Federation of United Cities, founded in 1957, and Metropolis, founded in 1984. Representing over half the world's population, the cities and association members of United Cities and Local Governments are present in over 130 countries across seven world regions – Africa, Asia-Pacific, Europe, Eurasia, Middle East and West Asia, Latin America and North America. Over 1000 cities are direct members of United Cities and Local Governments, as well as 60 national associations which represent all the cities and local governments in a single country.

Since its creation in 2004, United Cities and Local Governments (UCLG) has established itself as the reference World Organization of local and regional governments and their associations. It has gained recognition by representing their interests as part of the broad international governance agenda and uniting their voice before the international community. The international advocacy actions developed by UCLG on issues such as the Millennium Development Goals, Gender Equality, AIDS and Decentralization have resulted in benchmarking international tools and statements on the role to be played by local authorities in these areas. The UCLG Committees prepare and implement policies within priority areas, as defined by the Executive Bureau and the work programme for the current period. Each Committee can establish one or more Working Groups.



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Politics is the art of the possible. The great challenges through the growing mobility in our cities can only be mastered with courageous political decisions taken locally. The goals of socially inclusive, environmentally friendly and economy-promoting mobility may contradict each other in part in actual implementation. Therefore it is necessary to include citizen participation for setting priorities, and gaining the support of citizens for these decisions.

The UCLG Committee Urban Mobility wants to support this decision making process as a platform for exchange and as initiator of innovative projects. At the same time the committee wants to work as a lobby for cities on the national and international levels. Therefore it is worthwhile to participate in the working process of this committee. All cities are invited to cooperate and actively contribute to the work of the committee.

### **Premium partners**

Over many decades a mobility cluster unparalleled in the world has developed in Stuttgart. Besides famous companies such as Daimler, Mercedes, Porsche and Bosch numerous system and components suppliers, specialized service providers, education and research institutes work closely together (University of Stuttgart, the Fraunhofer and the Max Planck institutes as well as private research institutions). Stuttgart is therefore described as the most important centre of competence for mobility in the whole world.

Corporations linked to questions of mobility in a particular way can become "Premium Partners" of the Cities for Mobility network. In addition to the services for members, they receive special opportunities to present themselves on the internet, in publications and during events. The Cities for Mobility network has been co-financed during the last three years by nine Premium Partners.















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# Examples of best practice for urban mobility

### I. Socially inclusive mobility

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### II. Environmentally-friendly mobility

»	Integration of sustainable traffic and city planning URB-AL-Project, Lead Partner: City of Arequipa, Perú	25
»	Local supply concept in Stuttgart, Germany	25
»	Park & Ride in Prague	
»	Maxx – public transport in the Netherlands	
<b>»</b>	Dr Bus vu Chur – Successful public transport in Switzerland	
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#### III. Economy-promoting mobility

»	Saitama City Comprehensive Transportation System Master Plan	
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»	Urban Traffic Management and Control (UTMC) – UK	
»	ToolBox for Mobility Management in companies	
»	Project ELCIDIS (Electric Vehicle City Distribution Systems)	
»	Travelways – Mobility management in Dublin	
»	Compact – urban – green: City Planning in Stuttgart	
»	Parking Management Guide – Victoria, Canada	
»	Integrated Traffic Management Centre Stuttgart (IVLZ) – Stuttgart, Germany	
»	Enhancing the Convenience of the Bus Service – Hamamatsu, Japan	
»	Mobility Management Strategy – Dresden, Germany	

# Enable all segments of the population to participate in local public transportation by...

#### ... ensuring mobility service of the same standard in all parts of the city.

#### **Example for best practice**

#### Project CIVITAS CARAVEL in Burgos, Spain

Medium-sized cities can be considered as a living laboratory to prove how innovative measures in sustainable transport policies can achieve visible and successful results within a short period of time. With this idea in mind, the city of Burgos in Spain chose a set of demonstration areas where technology and citizens' behavior have been submitted to intensive testing to find the right approach to three key points:

- » the recovery of public space for citizens, mainly in the city center
- » the promotion of cycling and public transport as an efficient alternative to the use of private vehicles
- » the introduction of bio-fuels, providing a political commitment towards a public fleet in the context of a cleaner and healthier mobility strategy.

These three sets of measures represent the flagship of the European project CIVITAS, All this work was recognized by National Government when Burgos received the "Best City of the Year for Sustainable Transport and Mobility Award 2007" which was widely reported in the media and placed CiVITAS in Spain as the most remarkable and innovative project for sustainable mobility.

#### ... assisting people whose mobility is restricted.

#### Example for best practice

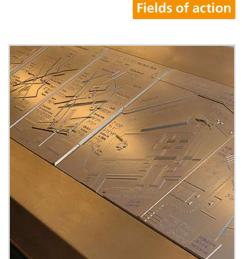
#### World's first Touch and Sound Atlas of the lle-de-France Region's public transport networks

The public transport network of Ile-de-France Region consisting of metro lines, buses and trams is one of the largest systems in the world. With the new Touch and Sound Atlas, it enables blind and partially sighted people to form a mental picture of the region and its public transport networks and prepare their travel routes. These maps have been designed by the City on the Move Institute (IVM), and produced by Institute for research into the application of engraving (IRAG) with backing and funding from the Ile-de-France Region and the Île-de-France transport Federation (STIF).

The Touch and Sound Atlas includes relief and large-print maps

of the regional metro, railway and tram lines; the main bus lines in Paris; and bus services to the forty regional centres around Paris. Recorded information, which describes the routes and provides tourist information on the areas around the main stations, are available on CD.

The atlas is available in two versions: An embossed version for blind people and a large-print version for partially sighted people. The point size of the characters varies to reflect the hierarchical nature of the information. This atlas makes Paris the first big city worldwide to provide a system that enabled visually impaired persons to enjoy the mobility and access that everyone else takes for granted to Paris's great cultural sites.





#### **Fields of action**

**Overall objective** 

#### ... making fares socially acceptable and target group-oriented.

#### **Example for best practice**

#### Zero-fare public transport in Hasselt, Belgium

Hasselt (70,000 residents) is one of a small and growing number of cities around the world providing zero-fare public transport. The transport network here is mainly by bus with the bus lines covering a total of about 500,000 kilometers per year. The mobility policy in Hasselt developed into an example of cooperation between the bus line, the Flemish government and the city of Hasselt, under the motto "the city guarantees the right of mobility for everyone". Since 1 July 1997, the town bus lines (called H-lijn) have been free for everyone including tourists. Other bus lines are free for the inhabitants of Hasselt while travelling in the territory of Hasselt.

Hasselt's mobility plan is not limited to free buses – there are also free bicycles and scooters available, and the city has made pedestrian and cycling access a priority. The primary agenda was to reduce car traffic and improve citizens' mobility and accessibility to their city. The end result was not only an improvement in transportation, but an improved quality of life, an increase of tourism, and less need for new auto-infrastructure.

The Mobility Plan has saved the City of Hasselt millions of Euros on transportation infrastructure costs and has eliminated the expensive investments in street and parking facilities.

#### Preserve and extend public infrastructure close to homes and jobs by...

#### ... decentralizing municipal facilities and services, offer them close to all citizens.

#### **Example for best practice**

#### **Decentralization in Stuttgart**

The Stuttgart City administration has established service centers called "Bürgerservice Stuttgart" (Citizen Service Stuttgart) in each of its 23 districts. These service centers serve as "one-stop-agencies" which offer more than 50 services to the local citizens, whether it is the registration of a motor vehicle, the application for a passport or to the initial issuance of a driving license. With the service centers near their homes and work-places, the citizens do not need to go to the city centre to settle their affairs, thus decreasing the traffic flows in the urban areas of Stuttgart.





#### **Fields of action**

**Overall objective** 

### I. Socially inclusive mobility

...securing the supply of essential goods close to where people live.

**Fields of action** 

#### **Example for best practice**

# Access to daily needs by new forms of grocery shops

According to the Consumer Federation of Germany eight million people are lacking access to their goods of daily needs. They are no shops in the neighbourhood that can be reached by foot or by bike. This is a problem primarily for elderly and disabled people. regarding the demographic change, this situation is increasingly recognized as unacceptable. A main cause is the increased construction of shopping centers in the outskirts of the cities. The changing shopping behaviour has a negative impact on the smaller retailers in the neighbourhood, which have to close their shops due to the absence of many customers. Since 2003, the BONUS gGmbH and the parent company, SBR gGmbH have



established 10 mini-supermarkets in Stuttgart. They aim to improve the chances of socially disadvantaged young people and long-term unemployed people at the labor market. In addition, the bonus-markets fulfill the specific task to ensure the supply of the daily needs in the city districts. The establishment of these supermarkets is therefore often supported by the local Federal Agency for Labor.

# ... extending public infrastructure towards jobs especially in industrial and commercial areas.

**Fields of action** 

#### **Example for best practice**

#### Project MOVIMAN – Partnership between Stuttgart (Germany), Cartagena de Indias (Colombia) and Porto Alegre (Brazil).

Environmental and mobility problems tend to be a constant companion in every city. A mere expansion of infrastructure – whether in individual traffic, public transport or non-motorized traffic – cannot solve these growing urban mobility problems. The answer to inefficiency in transport is often found in an effective mobility management, e.g. by providing information for the users on adequate alternatives.

The main objective of the MOVIMAN project is a new type of cooperation between the public administration, the private sector, the transportation companies and the road users in a



determined urban area. The aim was to achieve a more efficient, more economic and more ecologic mobility in a specific urban area with an industrial character. The project envisioned the creation of a Mobility Manager, called the MOVIMAN, which is a manager or administrator of territorial mobility responsible for closing the communication gaps.

Based on the users' suggestions, the mobility manager makes proposals to the authorities and also generates understanding of the measures implemented by the authorities among the users. In other words, the Mobility Manager adopts the role of an intermediary and offers support to achieve sustainable solutions to the mobility problems.

# I. Socially inclusive mobility

#### Shape demographic change in the area of mobility by...

#### ... extending the transport offers to all children and young people.

#### Example for best practice

Youth Traffic Safety School – Stuttgart, Germany

The Youth Traffic Safety School in Stuttgart, established in 1953, is the first training school in Germany for children to learn attitudes that promote safe behaviour in traffic and how to behave correctly and to cooperate with other road users. Moreover, they also learn to transform their knowledge about traffic rules into practical skills and compliant behaviour patterns.

The attendance of traffic safety school is compulsory for all pupils. The training comprises of theoretical and practical instructions and is carried out by teachers and certified police officers. The playful practical trainings with bicycles take place at the protected practice area with intersections, pedestrian crossings, roundabouts and traffic lights. There are 3 stationary practice

courses and 1 mobile youth safety school in Stuttgart. The project is organized and financed by City of Stuttgart, traffic police and Road Safety Association

#### ...making allowance for the special needs of senior citizens.

#### Example for best practice

#### Free Public Transport for Senior Citizens – Beijing, China

From 1 January 2009 on, Beijing is allowing its 1.6 million Beijing senior citizens who aged 65 or above to travel free of charge on their public buses. This simple gesture provides the added incentive for these citizens to move around the city instead of staying at home all the time. In addition, with this added mobility of population, there is this side-effect that there will be addition spending from this group of people.

Beijing Public Transport Holdings Ltd (BPT) reported that there were 1.6 million people aged 65 or above living in Beijing at the end of 2008, and this figure will grow to 1.9 million by 2010. Along with this project, BPT also renovated the busses to ensure

that more than 10 percent of seats are reserved for the elderly, children, pregnant women, and the disabled. The drivers and conductors must also pass a test on the new rules, such as not driving until all needy passengers are given seats.





# **Fields of action**

**Overall objective** 

#### Enhance road safety by...

Overall objective

#### ...enabling safe private transportation through traffic guidance and control.

#### **Fields of action**

**Fields of action** 

#### **Example for best practice**

# Helmets, Safety for riders of motorcycles and bicycles – Saõ José dos Campos, Brazil

The use of motorized two-wheelers and bicycles is rapidly growing in many places around the globe. As a result, there are increasing fatalities and injuries among its users, with head injuries being a major concern. Helmets are effective both in preventing head injuries and in reducing the severity of injuries suffered by riders and passengers of motorcycles and bicycles. Unfortunately, in many countries the use of helmets is still considerably low. The city of Saõ José dos Campos, one of 20 Brazilian towns working with Global Road Safety Partnership (GRSP), has won the prestigious XVII Prêmio Volvo Segurança no Trânsito road safety award. The town was recognized for reducing traffic deaths



(from 7.2 per 1,000 vehicles to 2.5 per 1,000 vehicles) and for a range of engineering, education and enforcement efforts, including its partnership with GRSP.

#### ...ensuring safe cycling and walking.

#### Example for best practice

#### MOVILIZATION – towards accessible cities

By means of developing a toolkit for cities, which contains campaign materials, implementation of simple and cheap traffic measures, and the development and implementation of traffic education materials, the project MOVILIZATION funded by European Commission aims to improve cycling conditions and therefore the cycling culture in the participating cities in Brazil, Columbia, Ecuador, Germany, the Netherlands and Nicaragua. MOVILIZATION is mostly useful for cities where cycling is already a common issue.

Cities which are in the phase of developing cycling can also benefit from the project results. Activities of MOVILIZATION were the preparation, development and the launching of educational,



promotional and traffic campaigns, combined with the implementation of relatively simple and cost effective traffic measurements. All results are published in a Handbook which is available on the Cities for Mobility website.

... improving security in mass transit systems.

### Fields of action

#### **Example for best practice**

#### **URB-AL-Project Bus Driver Training**

For safe and comfortable bus travel, the bus driver's qualification is very important, along with the improved fittings and technology. In Latin America and Europe, human error is still the main cause of bus accidents. The project aimed at the qualification of bus drivers by new training course contents, new learning techniques and traditional didactic models.

The training focus is on safe, economic and environmentally friendly driving. The second aim was the development of consciousness of the general public by target-group-oriented information campaigns for more safety around bus traffic. The complete training course (computer based training) is available on CD in different languages.



#### ... offering traffic education from childhood on in a systematic way.

#### Example for best practice

# The Vi.Co.Ro.Sa. project (VIrtual COmmunity for ROad SAfety) – Treviso, Italy

There is a clear correlation between the developmental situation of a country and the number of deaths from road accidents. The high accident rates in Latin American countries result from diverse causes, one of them is the lack of traffic education for more safety on the roads for all drivers, pedestrians, and bicycle riders. The Vi.Co.Ro.Sa. project is a programme for the promotion of social, economical development and life quality of the Latin American and European population, whose aim is to strengthen the cooperation among towns, regions and other local and territorial groups of the European Union and Latin America. The Project Vi.Co.Ro.Sa. aims at collecting data and information re-



**Fields of action** 

garding the present situation of road safety in the towns involved in the initiative.

The participants from Latin America and Europe exchanged experiences and innovative strategies in the area of avoiding accidents. For most positive effects, schools were involved in the project as children are the group with the highest risk for road accidents. Several local partners organized traffic education projects in direct cooperation with schools and local institutions.

# Protect residential quarters and districts with recreational functions from noise and air pollution by...

#### ...reducing air pollution by traffic control measures.

#### **Example for best practice**

#### Weekly No Driving Day program – Seoul, South Korea

Seoul's Weekly No Driving Day program is a voluntary citizens' campaign by which individual citizens refrain from driving their car during one weekday of their choice. Participants are given incentives, which are provided by public organisations and private companies, such as discounted petrol, free parking and car washing, reduced taxes and congestion charge, to use alternate modes of transport of the selected days.

People wanting to take part in the scheme select a weekday that they will not drive. They register their chosen day on a website www.no-driving.seoul.go.kr and receive an e-tag for the windscreen and sticker for the rear window. This enables the City

to monitor usage through a RFID (Radio Frequency Identification), which verifies compliance and ensures that participants are registered and therefore eligible for the incentive scheme.

Since July 2003, the program has improved Seoul's air quality, reduced congestion and saved energy. Every year, two million cars stay off the road – decreasing traffic volume by 3.7%. CO<sub>2</sub> vehicle emissions are being reduced by 10% and there is an annual saving of \$50 million USD in fuel costs.

#### ...reducing traffic noise by special regulations and control measures.

#### **Example for best practice**

#### Towards a Noiseless City – Barcelona, Spain

The BCNsensesoroll Noise Reduction Framework Program is a cross-disciplinary council project in which different municipal departments (urban planning, traffic, maintenance) and the ten city districts work together. Over 50 different noise reduction initiatives are being implemented, including the installation of noise reducing road surfaces on city streets, the promotion of subsidies for the acoustic insulation of buildings, and education and awareness activities.

After an internal participatory process five working groups were set up to address different topic areas (Motorcycles, Summer Night-time Terrace Bars, Roadwork, Incidents and Complaints, Sound-Reducing Road Surface).





Overall objective

Fields of action

#### Minimize traffic flows through integrated urban and traffic planning by...

#### ...integrating traffic planning as part of city development planning.

#### **Example for best practice**

#### Integration of sustainable traffic and city planning URB-AL-Project, Lead Partner: City of Arequipa, Perú

Not only in Latin America, but also in many parts of Europe municipal planning processes usually consists of an independent and superordinate city development planning and a subordinated traffic planning which has no influence on unnecessary traffic flows resulting from an excessive dispersion of urban functions. The integration of city development and traffic planning aims to pinpoint institutions generating traffic and developing suitable measures for reducing traffic, resulted from an independent city development planning and a subordinated traffic planning which has no influence on unnecessary traffic flows..

The project focuses at integrating both areas of planning and bringing them into accordance with the concepts of sustainability and the Local Agenda 21. The results of practical relevance are compiled in two comprehensive handbooks published online in the four project languages Spanish, Portuguese, German, and English.

#### ...decentralizing supply facilities to become a "city of short distances".

#### **Example for best practice**

#### Local supply concept in Stuttgart

Local supply is more than butter and bread. Neighbourhood thrives on the diversity of its offer. Various facilities complement and support and lead to mutual customers. The broader the range of goods services and even social services is, the more the center of town is living. The offer of food plays a key role, but are also other regional offerings like flower shops, kiosks, shops with goods of medium-and long-term needs, cleaning and repair services, bank and post offices, hairdressers, doctors, pharmacies and the gastronomy with its function as a meeting place are important.

Early November 2007, the City of Stuttgart as first big city in Germany employed a marketing expert as a District Manager.

His job is to develop marketing concepts to enhance the Stuttgart city districts. Important objectives are to strengthen the economic structure in the districts and increase the attractiveness of the district centers and thus the quality of life. In addition, the new district Manager serves as an interface between the administration and the actors in the districts.





Fields of action

**Fields of action** 

**Overall objective** 

...providing links to public and private service facilities through intermodal transport offers.

#### **Example for best practice**

#### Park & Ride in Prague

The dramatic increase in car ownership and use over the last two decades in the city of Prague has led to severe traffic congestion and pollution in the city centre. These problems were addressed by Prague's Transport Policy, which proposed the introduction of Park & Ride (P&R) schemes for the city, with the aim of reducing congestion and pollution by reducing the demand for parking in the city as well as promoting use of sustainable transport modes, including modern metro system and tourist tram).

Since 2001 the Park and Ride sites are constructed around Prague at a short walking distance to public transport, mainly rail stations, with good connections to the metro system. Electronic signage at the P&R sites provides information to the drivers



**Fields of action** 

about the availability of parking spaces, distance to the next nearest P&R site and the departure time of the next public transport mode into the city.

The P&R sites are included on maps of the public transport network produced by the Public Transport Company and the users can buy pre-paid tickets and tickets that include the cost of parking and transport into the city. Cars can be left at the secure sites overnight and some sites have a facility for residents to rent spaces on a longterm basis. This has resulted in a reduction of traffic congestion on the city centre streets and decreased the demand for parking in the centre of the capital.

#### Encourage non-motorized and public transport by...

#### ... expanding mass transit.

#### Example for best practice

#### Maxx – public transport in the Netherlands

Almere (185.000 inhabitants), one of Europe's fastest growing cities, has launched the new public transport infrastructure "Maxx" with the aim to facilitate and increase the use of buses. The dedicated cross-city bus lanes (total one way length of 105 km) was developed. About 90% of the houses and businesses are within 400 metres from a bus stop. The 'Maxx'-website provides the important information regarding bus lines, routes, timetable, tickets, special offers, abnormal conditions, suggestions, complaints and lost property. Promotions and special prices and a ticket structure related to the specific market segments, have become part of the brand. The introduction of "Maxx" resulted in 40% increase of bus passengers from 2000 until 2006.



### Overall objective

# ...making public transportation more attractive through comfort, safety and liability.

#### **Example for best practice**

#### Dr Bus vu Chur – Successful public transport in Switzerland

Chur (32,500 inhabitants), the capital of the largest Swiss Canton, Graubünden, has one of the best bus services in Switzerland and was therefore analyzed in terms of its contribution to the PROCEED project of the European Commission.

#### The main success factors of the BUSvuCHUR are:

- » Optimal service, based on easy to remember frequency, punctuality, reliability and cleanliness
- » Pleasing, modern vehicles including infotainment, accessibility and corporate design
- » Using the city bus system as a brand. The name "dr Bus vu

Chur" (the bus of Chur in local dialect) helps the local people identify with "their" bus. Young people in particular like the modern bus service and they are the customers of tomorrow.

The BUSvuCHUR is a good example to show, how improvements in bus service in terms of availability (location of bus stops and frequency), can lead to the increased demand of public transportation use.

#### ... ensuring the safety of pedestrians for example by sidewalks.

#### **Example for best practice**

#### Toronto – a City for pedestrians

The City of Toronto has made enormous strides in creating a culture of walking.

#### The following plans were developed to promote the walking in the City:

- A Walking Website, which provides "one-window" access to up-to-date information on walking policies, programs and services to encourage walking by Toronto citizens and visitors.
- The Pedestrian Priority Phase intersection, which allows pedestrians to cross the road safely in any direction they wish including diagonally across the intersection while the traffic is stopped for all vehicles in all directions.
- » The Toronto Walking Festival, in October aims at celebrating walking throughout the city and presented as a calendar of City and community-organized walking activities across the city.
- The Office of the Public Realm, a new unit within the Transportation Services Division that will allow the city to coordinate and deliver pedestrians improvements in a more timely fashion, as well as managing the City's walking strategy.





#### **Fields of action**

#### ...improving the quality of cycleways.

#### **Example for best practice**

#### URB-AL-Cycling – The City of Utrecht, Netherlands

The main objective of this URB-AL project is to strengthen the importance of cycling in the traffic engineering of medium-sized cities by means of an inter-active program for the education of experts, exchange of experience between the involved municipal experts and working out of studies for the benefit to its member of European Union and Latin America countries.

All project partners introduced their measures to promote the use of bicycles and their current measures in bicycle route planning and discussed their options for optimization with the other partners. All member cities developed a five year plan for promoting bicycle traffic in the long term without external financial resources. The results were summarized in a multilingual manual and made available at the homepage of the project.



#### **Fields of action**

Fields of action

#### ...networking the means of transportation by a better intermodality.

#### **Example for best practice**

#### Traintaxi in the UK

Traintaxi is a practical tool to help both business and leisure travellers take the train instead of the car, by overcoming one of the main obstacles: information about how to bridge "those final few miles". Traintaxi™ was created to provide comprehensible information about taxi availability at train stations to clients who request it.

#### Additional information that Traintaxi can provide are:

- » Listing of all the train, metro, tram and underground stations in Britain
- » Listing of local taxi or cab firms available in each station
- » Availability of taxi ranks or cab offices in each station
- » Availability of wheelchair-accessible vehicles



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# II. Environmentally-friendly mobility

#### Expand mobility management by...

...developing area-based mobility management for each city district.

#### Example for best practice

#### "One less car" – A campaign in Bellevue, USA

The traffic congestion in the City of Bellevue (117,000 inhabitants) was ranked among the top 5 U.S. Cities. Recognizing the need to reduce auto-mobile travel, especially the use of single-occupant vehicles, Bellevue has implemented the "One Less Car" campaign in mid 1990s to change travel habits, which included direct marketing to residents, establishing a website, and working with Bellevue schools to educate students about alternative travel options, the impacts of the automobile and how to use the public transit.

The City also worked with community groups, sport leagues, churches and neighbourhood to develop support for travel alternatives on the grass roots level.

The result of the campaign produced a strong awareness of travel alternatives. 85% of residents aware of "One Less Car' program and were willing to try travel alternatives. Drive alone rate for commuters reduced from 85% to 65% over a four-year period.

#### ...expanding integrated mobility management through traffic guidance and mobility centers.

#### **Example for best practice**

#### Slimweg – Mobility Centres in Belgium

The first mobility centre 'Smart on the road' (or Slimweg), supported by all Flemish transport providers (bus, train, car sharing, car pooling, taxi, cycling federation and walking federation) serves as the information center for the companies and citizens regarding their travel: walking, cycling, bus, tram, train, taxi and car sharing.

Information can be sought online, via telephone, or by simply visit by the mobility centre reception desks. Further, a new online travel planner offers door-to-door travel information service And additional information about carpool parks, park&ride parks, car sharing stations and taxi stands throughout the Flemish region. Moreover, the website offers an overview of how to reach the most important tourist locations in Flanders in a sustainable way.





**Fields of action** 

**Fields of action** 

**Overall objective** 

30

#### ...optimizing the management of stationary traffic, particularly the parking

space management.

#### **Example for best practice**

#### Parking management in Belgrade, Serbia

In order to organize parking in the streets, especially in the inner part of the city, Belgrade city administration has marked the street parking spaces and set the distinction between the spaces for the dynamic traffic, stationary traffic and pedestrian traffic. The time limitation of the zone parking spaces usage on 1, 2 and 3 hours was implemented in order to offer the limited parking spaces to a broader number of car users. The implementation of the new

zone parking regime was followed with the improvement of the public transport, the prohibition of driving on the bus stripes and the campaign to encourage the use of public transport.

#### Positive effects:

- » Decrease of the number of the irregular parked vehicles. The sidewalks are again for their basic purposefor the pedestrians.
- » Decreasing of the maximal accumulation of the parked cars on the streets and increasing of using the parking garages
- » Long-term parking users with the motivation to come to their work by car, have been redirected from using street parking spaces to use public transport or off-street parking spaces.
- » Decrease of the time spent finding free parking spaces.
- » Decrease of air pollution, fuel usage and the aggressive driving; resulting in the improvement of environmental quality in the city.

#### Reduce fuel consumption and emissions by...

#### ... promoting the increased use of alternative fuels and drive system technologies.

#### Example for best practice

#### Växjö is halfway to becoming fossil fuel free city

An incredible 51% of the city's energy comes from sustainable energy-sources such as biomass, renewable electricity, geothermal and solar. With this track record, by 2015 Växjö may well be the world's first fossil free city.

Nevertheless, Växjö's transport sector has been much harder to convert to a sustainable energy use and still relies heavily on fossil fuels such as gasoline and diesel. The city is also a logistics centre for southern Sweden and ex-periences a lot of traffic. As

a result, CO<sub>2</sub> emissions increased by 19% in 2005 compared to 1993. Renewable energies for transport currently sit at 2% in Växjö, but they are increasing.

#### Other programs to reduce transport emissions include:

- » Biofuels in public transport systems
- » First discussions on developing bio-DME (Dimethyl Ether is a clean alternative fuel produced from natural gas or coal)
- » Cars fuelled by gasoline converted to use ethanol
- » Municipal car-sharing with environmental vehicles
- » A cycling project establishing new cycling roads and in-formation campaigns
- » Free parking for environmental vehicles
- » Education in eco-driving for public
- » With the position system, Växjö Taxi reduced the number of km driven by 20%
- » Municipal subsidies were provided for buying environmental vehicles





### **Fields of action**

**Overall objective** 

...supporting buses, trucks and cars which are fuel-saving and low-emission.

#### **Example for best practice**

#### Low Emission Zone for trucks in Amsterdam

Since October 9, 2008, a low emission zone for trucks has been established in the area with the A10 ring-road, with the exception of Amsterdam-North and several industrial parks. Only clean trucks will be allowed to enter this zone. Older trucks not fitted with a diesel particulate filter will not be permitted to enter this zone, as they make a relatively large contribution to air pollution.

# Starting 2010, the following admission demands will apply to trucks (vehicles above 3,500 kilograms):

- » Euro 0 and Euro 1> may not enter the low emission zone
- » Euro 2 and Euro 3> may only enter the low emission zone if they are fitted with a diesel particulate filter
- » Euro 4 and Euro 5> are allowed to enter the low emission zone

# ...applying monetary measures to control the demand for transportation locally through systems of mobility pricing.

#### **Example for best practice**

#### **Congestion Charge in London**

London is the largest city to have adopted a central area congestion charging scheme. Car users are objected to the daily charge of £8 for driving or parking a vehicle on public roads within the congestion zone between 7 am – 6.30 pm on Monday to Fridays. Drivers can pay the charge on the web, by SMS text message, in outlets equipped with PayPoint – an electronic payment system, or by telephone. Various vehicle types are exempt, including buses, taxis, private hire vehicles and motorcycles; other types of vehicle can register for a 90% or 100% discount, such as vehicles used by residents of the zone or used by those with a disabled persons badge.

Since its implementation in central London in February 2003, the Congestion Charge scheme has led to a 20% reduction in four-wheeled traffic within the charging zone during charging hours, cutting an estimated 40-50 million litres of vehicle fuel consumption inside the zone and a total 100,000 tons  $CO_2$  emissions annually across London. It also led to an 83% increase in pedal cycle use across London, and the reduction of 40 – 70 road traffic causalities per annum. The charge raises £122 M annually which is then spent on improving transport, including providing more buses, improving road safety and implementing energy efficiency in transport.







**Fields of action** 

#### Strengthen public awareness of sustainable mobility by...

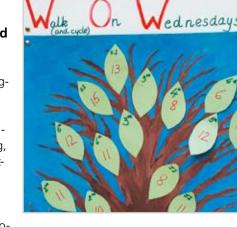
...promoting educational schemes and information offers about ecological impacts of traffic.

#### **Example for best practice**

The Green Schools Travel Program in Dublin, Ireland The Green-Schools Travel program, funded by Ireland Department of Trans-port, is a environmental education program, which is currently participated by more than 300 schools throughout Ireland.

As part of their Action Plan, participating schools will set their own travel targets, with the ultimate aim of increasing the number of pupils using sustainable transport modes such as walking, cycling, car pooling or public transport. This results in the reduction of traffic congestion at the school gates, the improvement of pupils' physical health and development of road usage sense as pedestrians and cyclists.

One of the successful stories comes from St. Joseph's Boys Natio-



nal School with its "Green Tree" idea. The Green Trees, made from old branches and placed inside the classrooms identifies those pupils who walk or cycle to school each day, as pupils who do so will place a green leaf on their tree. Leaves are then later counted from each class to give the numbers of pupils who cycle or walk to school.

The school is actively promoting WOW (Walk on Wednesday) to encourage pupils to walk to school each Wednesday. The class with the most walkers and cyclists each month will receive the "Golden Boots" award, donated to the school by a local shoe shop. The committee carries out spot checks every week on a Monday or Friday to assess the number of students who are walking and cycling. WOW has been able to generate the biggest modal shift in transport because it is an easy action to implement and be a part of.

# ...appreciating the environmentally friendly mobility culture through community relations work.

#### **Example for best practice**

#### Walk 21 – a movement to promote walking

"Walking is convenient, it needs no special equipment, is self-regulating and inherently safe. Walking is as natural as breathing" (John Butcher, Founder Walk21, USA 1999).

Walk 21 has developed an International Charter for Walking, which recognises the benefits of walking as a key indicator of healthy, efficient, socially inclusive and sustainable communities and acknowledge the universal rights of people to be able to walk safely and to enjoy high quality public spaces anywhere and at anytime. Walk 21 is committed to reducing the physical, social and institutional barriers that limit walking activity.



**Fields of action** 

**Overall objective** 

#### ...developing positive incentives for an environmentally friendly mobility culture.

#### **Fields of action**

#### **Example for best practice**

#### Cultura – for a new mobility, City of Graz, Austria

CULTURA is a project initiated and sponsored by the European Union as part of its URB AL programme. It is the aim of CUL-TURA to point out the necessity for soft measures like mobility management & travel awareness e.g. campaigns to control urban mobility and to substitute infrastructure measures for the encouragement of more sustainable modes of transport namely public transport, cycling and walking.

CULTURA collects and develops a wide range of products of high practical use such as best practise examples on soft measures and campaigns, guide-lines & checklists for development & implementation, a living and growing database on successful measures etc. All products will be available multilingual, free



of charge for downloading for everybody via this website. The main target groups for the products offered by CULTURA are decision makers (politicians), local / regional administrative staff who are in charge of planning & implementation of measures, multiplier & opinion leaders (e.g. journalists), public transport companies and end users.

#### ...starting mobility education in kindergartens and schools.

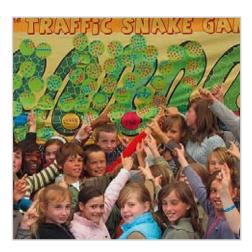
**Fields of action** 

#### Example for best practice

#### The Traffic Snake Game

The Traffic Snake Game is a fun game and campaign that stimulates young children (and their parents) to go to school in an environment-friendly, safe and healthy way such as walk, cycle, car sharing or public transport. The game was part of the European project CONNECT and is carried out in 76 schools at the same time by a select group of primary schools in Austria, Belgium, Bulgaria, Greece, Hungary, Italy, Slovenia, The Netherlands and United Kingdom. The result of the game is the 11% increase of eco-trips.

Regarding the success of the Traffic Snake Game, CONNECT was awarded the Sustainable Energy Europe Award 2009 in the category 'Promotional, Communication and Educational



Actions'. The jury gave praise to CONNECT for setting up new mobility campaigns where pupils and students have a central and active role. The high replication factor allows a snowball effect: more and more schools and children participating in the project and its aim to in-crease sustainable transport modes. The jury also noted and appreciated the realization of a project consortium that showed a good balance over Europe with a prominent involvement of newer member states.

#### Create attractive and efficient transportation systems by...

#### ... improving the accessibility of cities with different means of transportation.

#### Example for best practice

#### Saitama City Comprehensive Transportation System Master Plan

The city of Saitama has developed into the 9th largest city in Japan boasting a population of 1.2 million. The City is accessible by 14 train and subway lines, especially by the famous Shinkansen train. There is a high rate of commuters; the central Omiya Station has a daily rate of 310.000 passengers.

Based on the "Saitama City Comprehensive Transportation System Master Plan" of 2004, the city is striving towards a transportation system that is not heavily dependent on motor vehicles. In Japan, route buses are the general mode of transportation used by city residents.

#### There are several measures to improve the access to companies, shops and residential areas:

- Public Transportation Priority System: In Saitama City, traffic lights are regulated in favour of route buses to secure priority passage for these buses on the roads. Information from a device on board the bus is transmitted to an optical beacon installed on the roads, to extend the length of green light time or reduce the duration of red lights, thereby ensuring the smooth running of route buses.
- Bus Location System: The Bus Location System is one in which wireless communication devices or GPS technology are used to gather information on the location of buses and in turn make this information available at bus stops, on mobile phones or via the internet.

#### ...ensuring the good accessibility of all city districts.

#### Example for best practice

#### Designing a sustainable city – Curitiba, Brazil

Curitiba, the capital city of the State of Paraná, experienced the high growth with population increases approximately 5.7% a year. With the approval of Curitiba's Master Plan in 1966, guidelines were established that restructured the city and consolidated a public transportation system to move people easily throughout the metropolitan area and its surrounding municipalities. This results in a mass transportation system that today covers eight neighbour cities, and transports 1.9 million passengers daily.

#### The transportation system is made up of four complementary levels of service that includes:

- » Express lines large high-capacity buses that have exclusive traffic lanes, spreading radially from the city centre in 5 directions. They are treated as an "above-ground subway" because of their speed, capacity and frequent service.
- » Feeder lines pass through outlying neighbourhoods and make the system easily accessible to lower density areas.
- » Inter-district routes allow passengers to connect to the axis of the express lines without entering the central city area.
- » Rapid buses: the quickest links between two points with few stops, linked with "tube stations". Curitiba is the pioneer in the worldwide Rapid Bus development.





#### **Overall objective**

**Fields of action** 

#### ...facilitating the accessibility of commercial areas.

#### Example for best practice

#### Partnership for Sustainable Urban Transport in Asia (PSUTA)

PSUTA is the project initiated by Clean Air Initiative: Asia (CAI-Asia) and Swedish International Development Cooperation Agency (SIDA), which works with Asian countries to strengthen the implementation of sustainable urban transportation policies. Currently the project is being tested in Xian (China), Hanoi (Vietnam) and Pune (India). These fast growing Asian cities are experiencing problems with inefficient transport access in urban areas.

Xi'an (3.9 Million inhabitants), the economic center of Northwestern China, is improving the traffic accessibility in the city center.

#### Currently the following project is being implemented:

- Construction of new ring road of a length of about 71 km, including interchanges and bridges »
- » Integrating the ring road with the overall urban road network
- Improvement of the urban transport system, including bus priority scheme »
- Supply of equipment for road maintenance, transport planning modelling, traffic signals and area traffic » control center

#### ... optimizing goods traffic within cities with a logistics concept.

#### **Example for best practice**

#### Veloce System – Vicenza, Italy

Several years ago the Municipality of Vicenza has established a ZTL (limited traffic) zone in order to preserve the environmental and architectural goods of the city centre. However, this hasn't changed the congestion problems as heavy freight vehicles were still operating during the authorised time slots.

The objective of the Veloce system (Vicenza Eco-Logistic Center) is to tackle congestion in the city centre. This is achieved by a logistic system that concentrates good distribution. This optimizes every trip, minimising hence the environmental impact. A company and Logistic centers have been constituted in order to implement the system. The Vicenza municipality owns 55% of the company. Various commercial activities of the Vicenza city centre own the rest.

The implemented system works as follows: trucks transport their goods to a collection centre outside the city centre. These goods are then unloaded, grouped and reloaded on electrical vehicles that deliver to the city centre. The system is managed by an information program connected to personal digital assistants. The system showed to be very reliable: on a total amount of 23.000 deliveries carried out in 2004 and 67.000

packages delivered in 2005, no damage or loss has occurred. The economic balance of the activity is also convincing. On the environmental side, the system contributes to a PM10 (Particulate Matter < 10  $\mu$ m) reduction and has reduced the number of freight transport vehicles circulating in the city centre from 14 to 2.







#### Ensure trouble-free mobility of people and goods by...

Overall objective

**Fields of action** 

#### ...instituting programs to optimize the flow of traffic and to avoid congestion.

#### Example for best practice

#### Urban Traffic Management and Control (UTMC) – UK

Launched in 1997, the UTMC programme is the five-year research programme from UK Department for Transport (DfT) for the development of a more open approach to Intelligent Transport Systems (ITS) in urban areas. In January 2001, following a 3-year research phase, the Programme embarked on its demonstration phase by awarding funds to four towns and cities to implement and showcase real-life UTMC systems.

UTMC systems are designed to allow the different applications used within modern traffic management systems to communicate and share information with each other. This allows previously disparate data from multiple sources such as ANPR cameras,



Variable-message sign (VMS), car parks, traffic signals, air quality monitoring stations and meteorological data, to be amalgamated into a central console or database. The idea behind UTMC is to maximise road network potential to create a more robust and intelligent system that can be used to meet current and future management requirements.

#### ...ensuring that places of work and training can be reached within a short time.

**Fields of action** 

#### **Example for best practice**

#### **ToolBox for Mobility Management in companies**

The toolbox is a search facility from Belgium to help companies develop their own mobility plan, and to help them promote effectively the use of public transport, collective company transport, car-pooling, walking and cycling for home—work journeys. It has been developed by a consortium of European specialists in mobility management.

A company mobility plan – also called a green commuter plan or company transportation plan – tries to bring together transport and other business issues in a coordinated strategy aiming at making better use of the company's resources.

#### Best examples of Company mobility plan in the website:

- » a comprehensive company transport plan from BASF (Ludwigshafen, Germany)
- » bus network and the success of car-pooling from FORD (Genk, Belgium)
- » a complete strategy to stimulate car-pooling by Nestlé (, France)



... guaranteeing adequate transport facilities and capacities for freight traffic.

#### **Example for best practice**

#### Project ELCIDIS (Electric Vehicle City Distribution Systems)

Most European cities are confronted with problems of the evolution of urban logistics, which has led to the increasing use of heavy goods vehicles in city centres, causing nuisance, pollution and poor accessibility.

# The ELCIDIS project offers a solution for urban logistics in a dual way:

- » urban distribution with quiet and clean (hybrid) electric vehicles
- » efficient routing of vehicles and the use of central distribution centres.

#### The projects of the 6 participating cities:

- » Rotterdam and Stockholm: focus on the deployment of large electric vans and hybrid electric trucks, which will operate from the existing Urban Distribution Centres.
- » La Rochelle focuses on the development of a new, clean and efficient distribution system, which will set up special urban distribution companies and deploy electric vehicles with a payload of 500 kg.
- Stavanger, Milan and Erlangen focus on the deployment of (hybrid) electric vehicles for in-house goods and mail distribution for companies. The vehicles will be integrated into the fleets of companies which operate within the urban areas of these cities.

#### ...encouraging company mobility management.

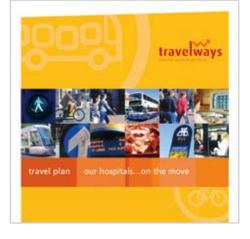
#### **Example for best practice**

#### Travelways – Mobility management in Dublin

Dublin City Council required a mobility management plan for the Mater Hospital and the Children's University Hospital which have over 3000 employees. Parking and planning constraints led the hospitals to take a strategic approach to reducing the number of single-occupant vehicles accessing the site. The mobility management plan addressed the traffic and parking impact in and around the area and placed a ceiling figure on car spaces for the new development. Parking and planning constraints led the hospitals to take a strategic approach to reducing the number of single-occupant vehicles accessing the site.

Onsite commuter centres were established in each hospital

to manage the implementation of the travel plan and to communicate travel initiatives to staff, patients and visitors. Over 5 years, their implementation of the travel plan will achieve a 20% reduction in cars accessing the site, reducing congestion and parking overheads. So far, a 16% reduction in staff travel by car was recorded as already achieved in September 2006 and also that the project won the Irish Times Living Dublin Award in 2007 for its contribution to improving quality of life in Dublin City.







# Coordinate the requirements of transportation with other forms of land use by...

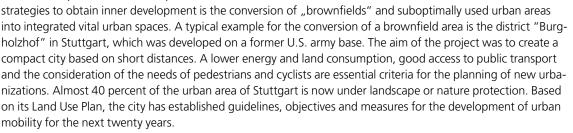
# ...integrating traffic planning into urban planning and the planning of enterprise land use.

#### **Example for best practice**

# Urban develoment in Stuttgart: "Compact – urban – green"

Between 2004 and 2006, the city administration of Stuttgart developed together with representatives from industry, science and politics a comprehensive urban development concept for the city. The basis of the concept is the commitment to the principle of sustainability. Under the motto "Stuttgart - compact, urban, green", all development activities undergo an impact assessment referring to their contribution to the environmental, social and economic stability of the urban area.

A focal point of the development concept is the primacy of inner urban development over urban sprawl. One of the most effective



# ...improving the supply and management of parking space for shopping facilities, public and private services and events.

#### **Example for best practice**

#### Parking Management Guide – Victoria, Canada

The Victoria Transport Policy Institute is an independent research organization dedicated to developing innovative and practical solutions to transportation problems.

Parking management refers to various policies and programs that result in more efficient use of parking resources. This report summarizes the book, Parking Management Best Practices (Planners Press, 2006), which describes and evaluates more than two-dozen such strategies. It investigates problems with current parking planning practices, discusses the costs of parking facilities and the savings that can result from improved management, describes specific parking management strategies and how they can be implemented, discusses parking management planning and



evaluation, and describes how to develop the optimal parking management program in a particular situation.



**Fields of action** 

**Fields of action** 

**Overall objective** 

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#### Create efficient institutions for traffic control by...

#### ... improving the efficiency of public administrative authorities.

#### Example for best practice

#### Integrated Traffic Management Centre Stuttgart (IVLZ) – Stuttgart, Germany

Stuttgart is located at the centre of a thriving economic region of 3 Million inhabitants with a high incidence of traffic. Mobility is a major factor in determining the attraction of the city as an industrial location and as a place in which to live and work, and the need for greater mobility is set to increase.

Stuttgart's Integrated Traffic Management Centre Stuttgart (IVLZ) seeks to address these problem issues: Since the beginning of 2006, this agency has been implementing an innovative system of traffic management taking in all modes of transport which is unique anywhere in Germany.

# Comprehensive information about the traffic situation in Stuttgart is gathered by four different partner organizations:

- » The Stuttgart Office of Public Affairs
- » The Stuttgart Civil Engineering Department
- » The public transport operator SSB AG
- » The Stuttgart Police Department
- » Data is centrally collated and evaluated at the IVLZ. It is then used to pro-actively influence the traffic situation through the use of information displays, parking direction systems and flexible traffic light programming.

#### ...improving the efficiency of public and private transit companies.

#### Example for best practice

#### Enhancing the Convenience of the Bus Service – Hamamatsu, Japan

Hamamatsu residents have several choices when it comes to public transport, including the train network, but many choose to ride the bus. The city has issued a new policy to improve the convenience of the bus service, which includes the introduction of IC Card and Bus Location System.

The IC Card (Nice Pass) was introduced in 2004 and approx. 30% of the city's 820,000 residents own one. The introduction of the IC Card has reduced the amount of time it takes for passengers to get off the bus by 27%.

The Bus Location System consists of boards showing the location of busses through a series of electronic lights have been

put up inside public buildings, such as City Hall and police stations, as well as at bus stops. Information on bus locations can also be received by computers and mobile phones using the Internet Bus Location System.







**Fields of action** 

#### Overall objective

### **III. Economy-promoting Mobility**

# ...getting companies and institutions with high traffic demands better involved in traffic planning and urban.

**Fields of action** 

#### **Example for best practice**

Mobility Management Strategy – Dresden, Germany Mobility management has been practised in Dresden since 1996

Objectives are less car traffic and car emissions by promoting alternative modes of transport and by involving great traffic generators, such as local companies and institutions.

With countless individual measures, such as jobtickets, the coordination of timetables with shift patterns, relocations of bus stops, cycle parking with corresponding infrastructure, Intranetbased car-pooling schemes, and even the establishing of a mobility team at the company Infineon/Qimonda, it has been possible to record remarkable successes.

to record remarkable successes. At Infineon/Qimonda, for example, the proportion of employees using private cars for their travel to work was reduced from 68 % in 1996 to 55 % in 2005.



Dresden cooperates with a lot of different traffic generators which are willing to practise mobility management without special financial promotion from the city administration. The successful classic case of MM for companies was expanded to schools, universities, hospitals, leisure activities (beer gardens), cultural and sport locations.

# Invitation for membership

We invite all members of UCLG to participate actively in the Urban Mobility Committee.

#### We invite you...

- » Cities and Regions
- » Public transportation companies
- » Businesses and corporations
- » Educational and research institutions
- » NGOs

#### ...to become members of the network Cities for Mobility. Your membership is free of charge.

Online registration: http://www.cities-for-mobility.org

The network Cities for Mobility offers a range of useful services. With your active participation you can create synergies and mutual benefits.

#### 1. Information and communication

- » Internet forum All relevant information on activities and partners is available at the web address http://www. cities-for-mobility.org.
- The Cities for Mobility eMagazine and Newsflash disseminate best practice solutions, innovative technologies, important events, and news from the network on a regular basis.
- » A mobility forum provides the opportunity to discuss problems and to communicate solutions that have already been successfully implemented in other cities.
- » Connections with experts: The Coordination Office supports members of the network in their search for experts on specific issues.

#### 2. Projects

- Projects for technical cooperation are initiated by the partners of Cities for Mobility at the congresses and throughout the year. Other forms of projects such as bilateral cooperation, Public-Private-Partnerships or research projects will be supported as well.
- » Co-financing opportunities are sought and international partnerships are built with the support of the Coordination Office.
- » Thematic clusters help to structure the cooperation in the following fields:
- 1. Individual transport
- 2. Public transport
- 3. Air quality
- 4. Non-motorized transport
- 5. Mobility management at mega events

#### 3. Events

- The annual World Congress serves as a forum for the exchange of experience between municipal transport experts, scientists and entrepreneurs. It is also a forum for developing projects, finding partners and presenting innovative solutions.
- Regional Congresses organized by the member cities that assumed the role of regional coordinator promote intense network contacts in the different regions of the world and support the implementation of innovative mobility concepts on a local basis.

### **Partners for contact**

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