

NICHES+ Study Tour Catalogue

A Guide to Urban Transport Innovation





Innovation

Leaders

Award
Winners

Other Cities
to Discover

Berlin

Eindhoven

Göteborg

Helsinki

Krakow

La Rochelle

London

Madrid

Manchester

Paris

Rotterdam

Stuttgart

Torino

Ulm

Aalborg

Barcelona

Bremen

D. San Sebastian

Emilia Romagna

Essex

Freiburg

Graz

Stockholm

Basel

Copenhagen

Dresden

Gent

Glasgow

Leicester

Lorient

München

Nantes

Salzburg

Vienna

Zürich

About NICHES+

NICHES+ is an EU funded project which studied and promoted the uptake of innovative transport solutions in order to transfer them from their “niche” position to a mainstream urban transport application. Between March 2008 and April 2011, the NICHES+ consortium – which gathered the universities of Newcastle and

Southampton, consulting companies Rupprecht Consult and TRANSMAN, and city networks EURO CITIES and Polis (Coordinator) – selected 12 innovative concepts in four thematic areas. For each of the themes, a Working Group of experts was set up to facilitate networking activities and to provide expertise:

Innovative Concepts to Enhance Accessibility

- Travel Training for Public Transport
- Neighbourhood Accessibility Planning
- Tailored Traveller Information for Persons with Reduced Mobility

Efficient Planning and Use of Infrastructure and Interchanges

- Passenger Friendly Interchanges
- Innovative Cycling Facilities for Interchanges
- Infrastructure for Innovative Bus Systems

Traffic Management Centres

- Finance Models for Traffic Management Centres
- Mobile Travel Information Services for the Public
- Using Environmental Pollution Data in Traffic Management

Automated and Space Efficient Vehicles

- Personal Rapid Transit
- Group Rapid Transit
- Using Electric Vehicles in City Car Share Schemes

In order to demonstrate how these innovative concepts can be successfully integrated into urban transport policies, NICHES+ closely cooperated with six local and regional authorities: Artois-Gohelle (France), Burgos (Spain), Cork (Ireland), Daventry (United Kingdom), Trondheim (Norway), and Worcestershire (United Kingdom). With the support of European transport innovation experts, each of these “Champion Cities” developed an implementation scenario to prepare for the local introduction of selected innovative transport measures.

For more information on the NICHES+ innovative transport concepts and how they can be implemented in your city, we invite you to visit the project website at www.niches-transport.org, where you can also consult the outcomes of the previous NICHES project, which examined and promoted another 12 innovative concepts in the field of seamless mobility services, city logistics, non-polluting and energy efficient vehicles, and transport demand strategies.

NICHES+ Study Tour Catalogue

Table of Content

	Innovation Leaders	Award Winners
About NICHES+	01	
A Guide to Urban Transport Innovation.....	04	
Editorial.....	05	
Introduction to Concepts.....	06	
	Berlin • Germany	Aalborg • Denmark
	10-11	40
	Eindhoven • The Netherlands	Barcelona • Spain
	12-13	41
	Göteborg • Sweden	Bremen • Germany
	14-15	42
	Helsinki • Finland	Donostia San Sebastián • Spain
	16-17	43
	Krakow • Poland	Emilia-Romagna • Italy
	18-19	44
	La Rochelle • France	Essex • United Kingdom
	20-21	45
	London • United Kingdom	Freiburg im Breisgau • Germany
	22-23	46
	Madrid • Spain	Graz • Austria
	24-25	47
	Manchester • United Kingdom	Stockholm • Sweden
	26-27	48
	Paris • France	
	28-29	
	Rotterdam • The Netherlands	
	30-31	
	Stuttgart • Germany	
	32-33	
	Turin • Italy	
	34-35	
	Ulm • Germany	
	36-37	

Other Cities to Discover

Basel • Switzerland	52	Alphabetic Overview	56-57
Copenhagen • Denmark	52	Personal Notes Pages	58-100
Dresden • Germany	52	Further Information	101
Ghent • Belgium	53	Photo Credits	102
Glasgow • United Kingdom	53		
Leicester • United Kingdom	53		
Lorient • France	54		
Munich • Germany	54		
Nantes • France	54		
Salzburg • Austria	55		
Vienna • Austria	55		
Zurich • Switzerland	55		

NICHES+ Study Tour Catalogue

A Guide to Urban Transport Innovation

Urban areas are increasingly affected by the impact of motorised traffic. More innovative strategies are needed to reduce congestion, emissions and road accidents, and to improve quality of life in European towns and cities. The aim of the this Study Tour Catalogue is to provide urban transport professionals and local decision makers with an overview of European towns and cities that successfully implemented innovative strategies which have the potential to become mainstream transport solutions.

The featured cities have been selected by urban transport experts within the scope of the EU funded projects NICHES and NICHES+, which studied and promoted a range of innovative approaches within a number of thematic areas, such as accessibility, infrastructure and interchanges, traffic management, automated and space-efficient transport systems, urban freight etc.

The study tour catalogue distinguishes three categories of cities ...

Innovation Leaders

cities that implemented
a range of
innovative approaches

Award Winners

cities that successfully
applied for the OSMOSE
Awards, a European
award scheme on urban
transport innovation

Other Cities to Discover

cities that introduced
a specific
innovative concept

Each of the city profiles includes relevant web links and contact information to help you plan and prepare your own study tour. The map of Europe on the inside front cover provides you with a geographical overview, while the overview table at pages 56-57 of the publication allows you to quickly identify which cities have introduced which specific innovative concept.

Innovation is a dynamic process. The cities mentioned in this publication are those encountered in a specific project, by a selection of experts. If you notice important gaps in our study tour offer, don't hesitate to report these to us. We would be happy to promote additional good examples on further occasions.

Wishing you a pleasant journey,
The NICHES+ team





ACCESSIBILITY

- Accessibility of infrastructure and vehicles
- Travel training
- Neighbourhood accessibility
- Travel information for persons with reduced mobility

FEATURED CITIES

Berlin	p 10-11	Krakow	p 18-19
D. S. Sebastián	p 43	Madrid	p 24-25
Essex	p 45	Manchester ...	p 26-27
Gothenburg...	p 14-15	Zurich	p 55



AUTOMATED VEHICLES

- Personal Rapid Transit
- Group Rapid Transit

FEATURED CITIES

London	p 22-23	Rotterdam	p 30-31
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CLEAN FUELS AND VEHICLES

- Electric vehicles and charging infrastructure
- Hybrid busses
- Biodiesel
- Clean vehicle procurement

FEATURED CITIES

Graz	p 47	Paris	p 28-29
La Rochelle ...	p 20-21	Stockholm	p 48
London	p 22-23	Vienna	p 55



COLLECTIVE CAR USE

- Car sharing
- Car pooling
- Ride sharing

FEATURED CITIES

Bremen	p 42	Stuttgart	p 32-33
La Rochelle ...	p 20-21	Ulm	p 36-37
Paris	p 28-29		



CYCLING FACILITIES

- Bicycle storage
- Combining cycling with public transport
- Public bicycle schemes

FEATURED CITIES

Basel.....	p 52	Eindhoven.....	p 12-13
Berlin	p 10-11	Ghent.....	p 53
Copenhagen	p 52	Paris.....	p 28-29



HIGH QUALITY PUBLIC TRANSPORT

- Bus rapid transit
- Intermodal interchanges
- Public transport prioritisation

FEATURED CITIES

Barcelona.....	p 41	Lorient.....	p 54
Eindhoven.....	p 12-13	Madrid.....	p 24-25
Freiburg	p 46	Manchester...	p 26-27
Glasgow	p 53	Nantes	p 54



INTELLIGENT TRANSPORT SYSTEMS

- Traffic management
- Mobile travel information and ticketing
- Integrated ticketing
- Smart cards

FEATURED CITIES

Aalborg.....	p 40	Leicester.....	p 53
Berlin	p 10-11	Rotterdam	p 30-31
Gothenburg...	p 14-15	Stuttgart	p 32-33
Helsinki.....	p 16-17	Turin.....	p 34-35
La Rochelle ...	p 20-21		



URBAN FREIGHT

- Night-time delivery
- Cargo trams
- Urban freight management

FEATURED CITIES

Dresden.....	p 52	Gothenburg...	p 14-15
Emilia-Romagna..	p 44		



↑	Hauptbahnhof	1.4
🚲	Reichstag	0.2
←	Charlottenburg	2.9
🚲	Tiergarten	0.5
	Alexanderplatz	2.7 →
	Schloßplatz	1.5 🚲

R1

BERLINER CITY TOUR

Innovation Leaders



Berlin GERMANY

Towards Barrier Free Public Transport

Accessibility

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www.vbbonline.de (German)



Approximately one third of all public transport users in the Berlin region have a reduced mobility, including impaired users, but also many older people, parents with prams or travellers with heavy luggage. There are still many barriers for these users, but public transport actors in Berlin are doing a lot to enhance barrier-free travelling opportunities.

An innovative example is the traveller information of the public transport association VBB. Within the BAIM project VBB developed, in cooperation with the public transport association RMV in Frankfurt/Main (lead partner), a mature journey planner that gives information on barrier-free travel chains in public transport. The user enters his requirements towards barrier-free trav-

elling for a planned trip. The journey planner provides information on connections that are barrier-free and also gives additional details on the accessibility of interchanges (e.g. interactive station plans), stops and vehicles. VBB is also offering a free of charge door-to-door travel assistance service for all mobility or visibly impaired persons and older people that need help to use public transport.

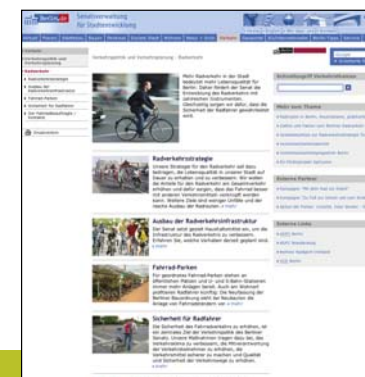
Furthermore a lot has been done in Berlin to improve the physical accessibility of public transport vehicles (low-floor, ramps) and stops (elevators, ramps). Special orientation tools have been introduced for hearing impaired and visually impaired users. Public transport is not fully accessible yet, but Berlin has much to show already.

Promoting Intermodal Travel Solutions and Cycling



Berlin's Traffic Management Centre (VMZ) offers an innovative intermodal dynamic route planning service, combining both private cars and public transport. It integrates transport into a single city centre management system for public, private and commercial transport. Mobility information is supplied to trip-makers through an internet-based intermodal route planner and can also be accessed via mobile devices.

Berlin has also made a remarkable step ahead in cycling culture (13% modal share). The city's cycling strategy understands cycling as a "system", which requires an integrated approach to developing infrastructure like bicycle paths and parking facilities, traffic regulations, signage and marketing measures. The connection between public transport and the own or public bicycles is an important element as well. ■



More information

Berlin's traffic management centre VMZ:

www.v mzberlin.com/pdf/VerkehrsManagementZentrale_kl.pdf

(English/ German brochure)

Berlin's cycling strategy:

www.stadtentwicklung.berlin.de/verkehr/politik_planung/rad/index.shtml

(German)



Eindhoven

THE NETHERLANDS

Hometown of Phileas, the Cleaner and Faster High Quality Public Transport System

High Quality Public Transport

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www.apt-phileas.com



The city of Eindhoven is a medium sized city (210.000 inhabitants) with a strong drive for innovation (being the hometown of several multinationals like Philips, ASML, NXP, TomTom and others). One of the key projects in this regard is the Rapid Bus Transit line Phileas, connecting the city with the airport.

The bus service is environmentally clean using hybrid and electric propulsion. **The bus' electronic guidance increases its fuel economy, enabling more accurate and quicker stops, in addition to an increased average speed and decreased need for road space.** This average speed is about 30 km/hr for the total route. The system can carry 1000 passengers at a travel

schedule interval of 10 minutes at the busiest time of the day. The operation costs lie between a conventional bus on a free lane and a fast tram, but fuel use is 25% lower than a conventional bus. The bus provides quick and easy access for all passengers, including those with mobility impairments.

The city has installed a low emission zone for heavy duty vehicles. Heavy duty vehicles below EURO4 are excluded from accessing the zone. Phileas and the low emission zone combined with alternative fuel research (using pure plant oil) are key components in Eindhoven's move towards clean vehicles and fuel strategies.

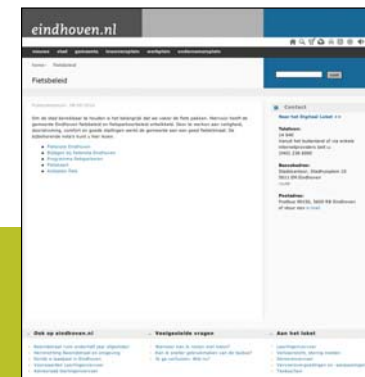
Increasing the Modal Share of Cycling



Although the city has a slightly lower cycling modal share than other similar cities in the Netherlands, two wheelers are at the heart of Eindhoven's transport policy, which includes tailored policies such as bicycle storage and theft prevention, and bicycle network development.

In the city centre free and secure cycle parking facilities have recently been opened. To stimulate use the Eindhoven citizen's pass can be used to accumulate points in the

monthly contest Bike and Win. To popularise cycling the city opened 60 kilometres of cycle routes throughout the city which provide access to the most interesting Eindhoven locations. ■



More information

www.eindhoven.nl/artikelen/Fietsbeleid.htm (Dutch)





Gothenburg SWEDEN

Integrated Approach to Enhance Access for People and Freight

Urban Freight Intelligent Transport Systems

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With about half a million inhabitants, Gothenburg is the second largest city in Sweden. The City of Gothenburg is a fore-runner in several fields of sustainable urban transport. It is an absolute leader in the field of urban freight logistics. Gothenburg is currently (2011) on its way to implementing an urban road user tax, similar to the Stockholm scheme.

Gothenburg has undertaken a lot of effort in the field of urban freight logistics. The city is building and sharing this knowledge through several European projects, such as CIVITAS. **One of the key measures in this regard is the Environmental zone for Heavy Duty Vehicles.** The zone that had existed since 1996 was enlarged in 2007. Access restrictions

for dirtier trucks and buses are now enforced. So far this approach has proved successful with measured reductions of NOx and particulate matter emissions.

The city has a fully operational real time travel information system (GoTIC – Gothenburg Travel Information Centre), providing information about public transport arrival times and routes at stops and through mobile services.

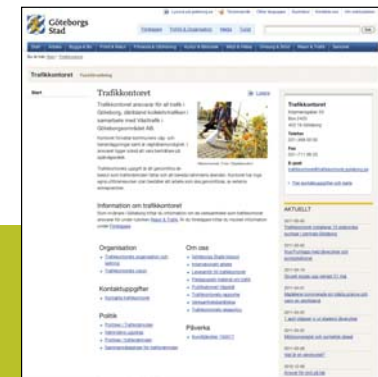
The city is a pioneer in operating buses and taxis on natural gas. For a decade now, bus operators have been required to use gas buses. The gas is made from wastewater or solid biological material, being the cleanest fuel that is commercially available.

Stakeholder Involvement for a Better Public Transport Service for All



The city of Gothenburg has developed a project to transform the public transport system into an accessible-to-all public transport system. This project is called KOLLA. The project started in 2004 following an analysis carried out to study how people with disabilities can use public transport in an easier and less costly way. The project is built around three axes:

- Increased accessibility of streets, stops, stations and vehicles.
- Increased comfort through training schemes, IT support and personal services such as a call centre.
- Intensified cooperation and dialogue with stakeholders. ■



More information

www.goteborg.se/trafikkontoret (Swedish)



Helsinki FINLAND

Mobile Travel Information for Public Transport Users

Intelligent Transport Systems

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www.hsl.fi/EN/mobile
www.upc.fi/en/upcode



KAMO is a mobile guide for public transport users in Helsinki providing journey planning, stop-specific timetable information and fare payment. Users can track the progress of any buses, trams or underground trains included in real-time positioning-based monitoring. The service also enables journey planning and tracking via Near Field Communication (NFC)-enabled mobile phone. Once loaded into the mobile phone, KAMO can be accessed using the phone's menu.

Touching a radio frequency identification (RFID)-tag with a phone opens the application on the display independently of the menu.

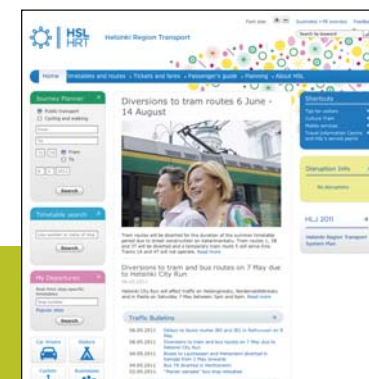
Helsinki City Transport is currently testing new electronic timetables which are operated by a mobile phone equipped with a camera and internet access "Upcode" software. When the user points the phone's camera at an Upcode smart screen at the bus or tram stop, the phone automatically takes a picture which triggers the phone to perform the task defined in the smart screen: the phone accesses the internet site that contains the stop's timetable. The advantage compared to printed timetables is real-time service information. The system also makes announcements of service interruptions. The service is free of charge to users. One of its applications is voice synthesised timetables for the visually impaired.

Increasing Public Transport Ridership through Smart Cards and Mobile Ticketing



First-generation contactless smart card ticketing has been in use in the Helsinki metropolitan area since 2001. Both time and money can be stored in the travel card. A new generation of smart card ticketing and information system is in the tendering process and will be introduced by 2015. **Occasional public transport users in Helsinki can also purchase tickets directly with mobile phones by sending a simple code as an SMS message to a service number.** After a few seconds, the

user receives a mobile ticket including the validity time and area of the ticket, the identification number and the sender number. The price of the ticket is included in the phone bill. The mobile ticket is valid on trams, on the metro, on the Suomenlinna ferry, on several buslines and the commuter trains. About 20% of all single tickets and over one-third of single tickets on trams are sold via text messages. In 2010, the Helsinki Regional Transport Authority sold over 3.5 million sms tickets. ■



More information

Helsinki City Transport: www.hel.fi/hki/HKL/en/Etusivu

Helsinki Region Transport: www.hsl.fi/EN





Accessibility

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(soon in English)

Krakow POLAND

Safer and more Accessible Public Transport Stops Benefit All Passengers



Inaccessible tram and bus stops form a barrier to many, including older people, those with disabilities, and parents with young children. **The City of Krakow developed a scheme to modify or rebuild public transport stops in the city to make access safer and more comfortable for all of its customers.** The scheme, co-ordinated by the City of Krakow, the Road Transport Management Board and the local public transport operator, also speeds up vehicle loading times.

A survey carried out in Krakow asked people about factors that reduce journey comfort and the sense of security in public trans-

port. High floor vehicles were indicated as a particular problem for disabled and older people, whilst the speed and number of cars passing bus and tram stops made it difficult to get on and off the vehicles.

A major bus/tram stop was reconstructed based on this input and a document was developed called the Security Action Plan. Today, the reconstructed bus/tram stop serves as a model for other stops across the city and any bus or tram stop reconstruction undertaken must refer to the Plan. This combination has helped to establish a systematic approach to quality management in public transport accessibility.

Offering Extra Service to Senior Citizens Makes Public Transport more Attractive



The city of Krakow realises that infrastructure alone cannot create an attractive, user-friendly public transport system. Within the context of the AENEAS project, Krakow set up a pilot project at two public transport stops to help older citizens travel independently and to make public transport more attractive for older people. **Young assistants**

were based at stations at selected periods of the day to help older people enter and exit buses and trams, to provide information on connections and schedules, and to help with e-ticket machines. During the pilot, up to 120 older persons were assisted daily and high levels of satisfaction were expressed with the service. ■



More information

Accessible Public Transport in Europe website:
www.aptie.eu

Krakow's public transport assistance programme:
www.aeneas-project.eu (click on Krakow)





Collective Car Use

Clean Fuels and Vehicles

Contact person

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La Rochelle FRANCE

Yélobobile: Self-service Electric Cars



The first electric car share club was the Liselec scheme in La Rochelle, France, which has operated since 1999. It provides 50 electric cars (25 Peugeot 106s and 25 Citroen Saxos), parked in seven recharging stations near high use locations in the city, such as the main train station, the bus station and the university.

The cars are available for pick-up round the clock, every day of the week. Users must have a driving licence in order to take out a subscription. In exchange, they receive a pass unlocking any of the 50 cars. Subscribers pay for car hire according to the usage time and mileage totalled during the month.

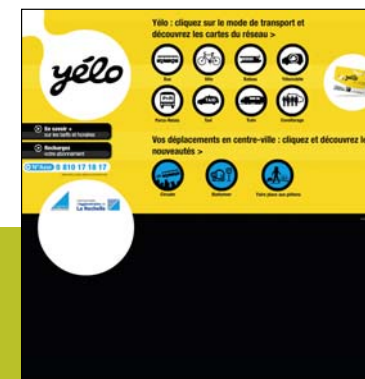
Users can leave the cars at any recharging station, so they effectively have free parking in the city. The scheme operator must redistribute the cars if necessary at the end of the day. The scheme is soon to be upgraded with more recharging stations to help attract more users, and then again when the new generation of electric vehicles becomes available.

Optimising Multimodality through Integrated Ticketing



La Rochelle has developed over the years a large range of public transport modes on its territory and in the last years has aimed to improve the attractiveness of its public transport network by launching a new service offer and pricing combined with a new unique identity called 'YÉLO'. **With Yélo, the network offer and pricing system has been upgraded, making all modes of transport easier and more practical to use with one single smartcard: buses/coaches, bike-sharing, park-and-rides,**

electric boats, electric car sharing and train. By introducing this smartcard, local decision makers have made a strong appeal to convince the inhabitants to use alternative transport modes. ■



More information

www.yelo-larochelle.fr



London UNITED KINGDOM

Personal Rapid Transit

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Personal Rapid Transit (PRT) at Heathrow Airport



The pilot PRT scheme at Heathrow Airport (UK), developed by ULTra PRT and scheduled to open in the course of 2011, is the first implementation of PRT in the world. It provides transport for travellers between the business car park and the new Terminal 5, about 2 km away. **21 automatic electric podcars, each with room for 4 persons and their luggage, transport users along a segregated guideway at up to 40kph.** The trip takes about 5 minutes, the podcars operate on-demand, but are usually waiting so that waiting times are zero for 70% of users and very low for the others.

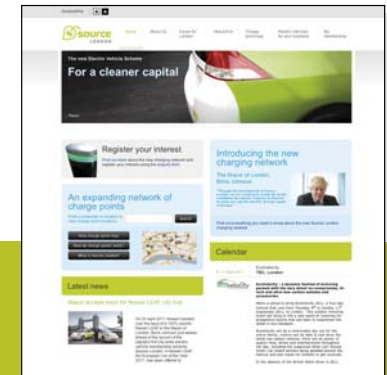
The capital cost is reckoned to be about half that of an equivalent tram scheme and with the potential to provide a similar passenger carrying capacity. If the pilot is successful, it is planned to extend it eventually, to interconnect all the car parks and terminals with the bus, rail and metro stations, car rentals and hotels on the airport site.

Source London: A Charge Point Network for Electric Vehicles



As part of its ambition to become the electric vehicle capital of Europe, the City of London created a new city wide electric vehicle charging network. **“Source London” aims to install 1,300 public-use charging stations by the end of 2013, allowing members to charge their vehicles for an annual membership fee which includes the cost of electricity.** In preparation for this new network, a website has been launched providing a one-stop-shop of information on electric vehicles, including charge point

locations across the city. The development of Source London, has been led by Transport for London (TfL) in close collaboration with the London boroughs and a wide range of private sector partners - who will play a key part in funding and providing locations for the network’s charge points. ■



More information

Transport for London: www.tfl.gov.uk

Source London: www.sourcelondon.net



Madrid SPAIN

Passenger Friendly Interchanges

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Madrid's Network of Transport Interchanges



The region of Madrid counts seven important highways that connect the region with the city of Madrid. At each of these seven entry points, an interchange station has been or will be implemented that connects the metropolitan and urban bus lines and the underground network, as well as long distance and commuter train lines.

The Madrid Transport Interchanges Plan represents a very ambitious strategy not seen in any other city in the world. While many cities have built an interchange station, none have implemented a whole network of interchanges that can transport more than a million users per day and cover the entire flow of passengers accessing the city from all its entry points, as is the case in Madrid.

Between 2007 and today, five out of the seven interchanges on the network have been built and the reconstruction of the

two remaining ones will start soon. The complexity of urban and metropolitan mobility requires that public transport offers flexibility, coverage and comfort, if it wants to compete with private modes of transport. The sustainability of the Madrid public transport system has improved considerably thanks to the Transport Interchanges Plan, including benefits for a wide range of stakeholders such as the public administration, bus passengers, private vehicles, local residents, bus operators and the operating concessionaires.

For its ambitious and successful Transport Interchanges Plan, Madrid received the 2011 OSMOSE Award on 'Efficient planning and use of infrastructure and interchanges'.

Madrid's Public Transport "Designed for All"



Since the creation of the Madrid Transport Authority (CRTM) in 1986, improving the accessibility of the city's public transport system has been a major priority. From then until now, Madrid's public transport,

as well as the corresponding legislation, has evolved from considering accessibility as a functional requirement only affecting people with disabilities, to a right for all citizens to enjoy an environment which can be used safely and independently regardless of their physical, mental or sensory condition.

Madrid has invested great efforts in ensuring the universal accessibility of its urban transport systems through a series of measures with regard to the different modes of transport (underground, light rail and

tram, commuter trains, urban and intercity buses), based on the 'design for all' approach. **Accessibility measures implemented in the interchange stations relate to both horizontal (e.g. tactile paving) and vertical movements (stairways, lifts), as well as furniture, evacuation, restrooms, customer service centre, wayfinding information, and screen design.** The aim is to provide at least one accessible adapted route to connect the street both in a horizontal and vertical way with the interchange's public facilities and services. ■



More information

www.crtm.es

www.madrid.org





Accessibility

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[www.gmppte.com/
accessible_transport](http://www.gmppte.com/accessible_transport)

www.mttp-travel-training.org

Manchester UNITED KINGDOM

Making a Change in People's Lives Through Travel Training



Greater Manchester provides an excellent example of how travel training schemes can have a real impact on people's lives. While moving around in the city is a normal and easy thing for most people, for some it is a real challenge. **In Greater Manchester travel training is provided for a range of target groups including disabled people, young people with special needs, and older people.** While training formats for these groups differ, including provision of short-term and long-term support, they all aim at enabling and encouraging independent and safe travelling by public transport. This is not only a mobility issue but also crucial to access social, employment and health opportunities in the region.

Two out of many examples of successful training schemes are the Manchester Travel Training Partnership (MTTP), which offers one-to-one training for young people with

special needs (i.e. physical disabilities or learning difficulties), and a training scheme for older people in cooperation with the local organisation AGE concern.

The benefits of travel training have been recognised for many years by the Greater Manchester Transport Executive (GMPTE), which provides grants to voluntary sector organisations that develop and carry out the training schemes. GMPTE also established a Travel Trainer Forum, where practitioners from the region meet to exchange and network. This creates valuable synergies and could be a model to others.

Improving Bus Services in Greater Manchester



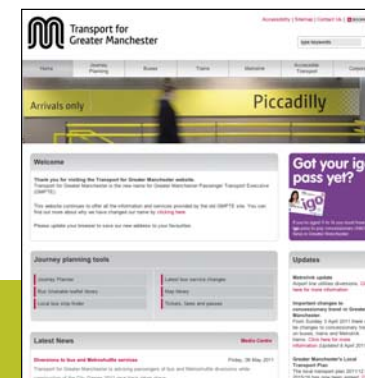
Greater Manchester provides interesting approaches to improving and promoting bus services. GMPTE has so far established 24 Quality Bus Corridor (QBC) routes, forming an extensive network that covers 176 miles.

QBC is a comprehensive approach, aiming at improving the whole journey experience of bus users, but also at improving conditions for pedestrians and cyclists.

This includes measures that provide buses with sufficient priority to improve punctua-

lity and journey times, to enhance the safe access of pedestrians to bus stops and to provide cyclists with new and improved facilities.

Another interesting approach is the free Metroshuttle bus service that operates three routes in Manchester City Centre linking the main rail stations, car parks, shopping areas and businesses. Further routes have been established in Bolton and Stockport. ■



More information

Quality Bus Corridors (incl. Best Practice Guidelines):
www.gmpete.com/buses/quality_bus_corridors.cfm

Free Metroshuttle bus services:
www.gmpete.com/buses/metroshuttle.cfm



Paris FRANCE

Clean Fuels and Vehicles

Collective Car Use

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The Autolib' Electric Car Share Scheme



Following the success of Vélib', the Paris public bike scheme, it was decided in 2009 to further extend Paris' sustainable transport offer by introducing an electric car share scheme. A cooperation structure called Syndicat Mixte Autolib' was established between the city of Paris and about 50 surrounding municipalities to introduce Autolib' in their area, covering around 700 km² and gathering 5.5 million inhabitants. The service, called Autolib', will open to the public in October 2011, and is expected to be fully operational across the 50 participating communes by spring 2012. The service will be operated by Bolloré, which was chosen from three candidates that responded to the call for tender.

The full scheme will involve about 1200 charging stations, with an average capacity of 6 cars, to cater for a planned fleet of 3,000 electric vehicles. A driver will be able to pick up a car, for example in the east of the city, and drop it off in the west after a short journey. A computerised system will enable the driver to reserve a parking space at the drop-off point. Members will be charged a monthly subscription fee of around €12 plus an average of €5 per 30 minutes of driving, including the costs of insurance, 'fuel' and parking. The cars will be fully electric four-seaters, with a lithium battery offering a range of about 250 km for an average charging time of 4 hours.

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Public Bikes in Paris: the Vélib' Scheme



Autolib' thanks its introduction to the success of the Paris public bike scheme Vélib', which was implemented in 2007. Vélib' is a self-service bicycle scheme offering more than 20,000 bikes across more than 1,250 stations. **Users can take a bike from any station and return it to any other station across Paris.** With a station every 300 metres and a service available 24/7, cyclists can get around Paris, making use of the 650 km of cycle lanes. Subscribers pay €29 per year, which grants them free

use of the bike for trips below 30 minutes. The service is being operated by JCDecaux. 100 million trips were made in almost four years, and in July 2010 the service counted 162,000 long-term subscribers. ■



More information

www.autolib-paris.fr

www.velib.paris.fr

www.paris.fr/accueil/accueil-paris-fr/deplacements/p9648



Rotterdam

THE NETHERLANDS

Automated Transport Systems

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Rivium ParkShuttle



The ParkShuttle is an automated system of driverless electric buses connecting the Kralingse Zoom metro station and car park with the Rivium business park. It is built by the '2getthere' company and operated by the Dutch public transport company Connexxion. The system, which became fully operational in early 2006, uses six buses, each with seats for 12 and a maximum capacity (including standing passengers) of 24. The vehicles are electric and provide comfortable, clean and efficient public transport with low waiting times (1.5 to 3 minutes on average).

Users call a bus by pressing the button at a stop, and press another on the bus to indicate which stop they wish to travel to. Passengers use regular public transport tickets, including chip cards, transfers and season tickets.

Buses travel at up to 35km per hour, and are equipped with obstacle detectors to stop automatically in case pedestrians or other obstructions are found on the track. The system operation is managed from a control centre using a supervisory control system, with CCTV being available to visualize anything on and adjacent to the track.

Optimising the Usage of Road Infrastructure through ITS



With the implementation of an extensive ITS system, the city of Rotterdam is optimising the usage of existing infrastructure. Rotterdam and the surrounding and higher level of governments are working together on an integral dynamic information system for road users. **The cooperation between different cities and regions makes it pos-**

sible to regulate traffic on a network level.

The basis is a set of rules, which describes for each possible event which actions should be undertaken. The ITS system is not only for informing drivers, but also as a tool to regulate the traffic. The next step will be to evaluate the events and the effect of the ITS system. ■



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Stuttgart GERMANY

Integrated Traffic Management Centre Focuses on Collaboration and Information Sharing

Intelligent Transport Systems

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What is most impressive about Stuttgart's exemplary integrated traffic management system is the collaboration among the participating partners: the city's traffic management department, the police traffic division, the fire department, emergency services, and the public transport operator (SSB). This collaboration allows the partners to collect traffic information, evaluate it, and react in an informed and unified way to situations that arise.

The centre brings information on traffic situations in the city together in one place. **The information collected allows for better management of traffic around accidents, major events, and construction projects, and has enabled the provision of strategic right of way for public transport vehicles.** The use of dynamic information boards,

parking management systems and flexible signal controls allows them to have an active influence over the ongoing traffic situation. This has led to a measurable improvement in traffic movement in the city, both for individuals and for public transport plus direct traffic information to local radio stations and traffic information in the internet.

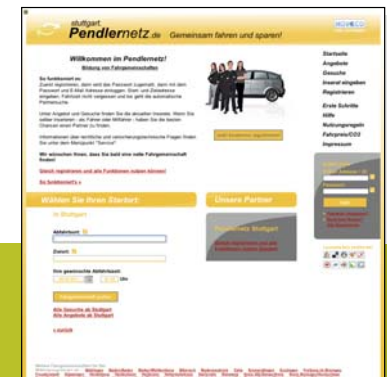
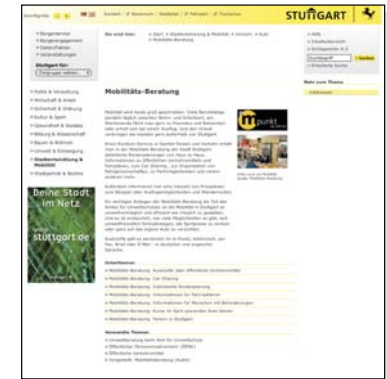
Future plans include expansion of data collection around the new trade fair site, more measuring stations and video cameras throughout the city, and more traffic information boards. They are also planning regional collaboration, including linking public transport to communities beyond the city borders, scheduling connections, dynamic passenger information, and expansion of a shared transportation strategy with the state of Baden-Württemberg.

Electronic Car Pooling System in Stuttgart



The online car pooling service **Pendlernetz Stuttgart** is a free Internet-based system that arranges door-to-door car pools for commuters in the **Stuttgart Region**. It provides communication by SMS and e-mail, route mapping and public transport information. The Stuttgart administration has successfully promoted the Pendlernetz among major employers; both Daimler and Bosch have integrated the Pendlernetz system into their Intranet platforms to organize car-pooling among their employees.

The service was expanded to include car-pooling to football games, concerts, and other large events during the CIVITAS/CARAVEL project. Personal support is available in the Stuttgart mobility information and service centre. ■



More information

www.stuttgart.de/mobil

www.stuttgart.pendlernetz.de (German)



Turin ITALY

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5T: Telematic Technologies for Transport and Traffic in Turin



The 5T project was launched in 1992 in order to help citizens move around the city more quickly, encourage use of public transport and reduce pollution. **5T has a fully integrated approach covering all mobility issues in Turin keeping a multi-modal focus, involving bus, tram, metro and suburban rail networks.**

Originally, 5T was financed by a public-private partnership involving Turin City Council and Gruppo Torinese Trasporti (GTT), AEM Torino, Fiat, Mizar Automazione and CSST. Today, it is a S.R.L. (Limited Liability Company) and is owned by Piedmont region (30%), Turin Municipality (30%), Turin province (5%) and GTT group (35%). Recently 5T has been asked to extend its coverage throughout the Piedmont region.

The main functionalities provided by 5T are: mobility supervisor, traffic and access control, public transport information, information for citizens, variable message sign (VMS) panels, information regarding car-parks, monitoring of pollution, road safety and video-surveillance of public transport.

Contactless Smartcard for Seamless Mobility



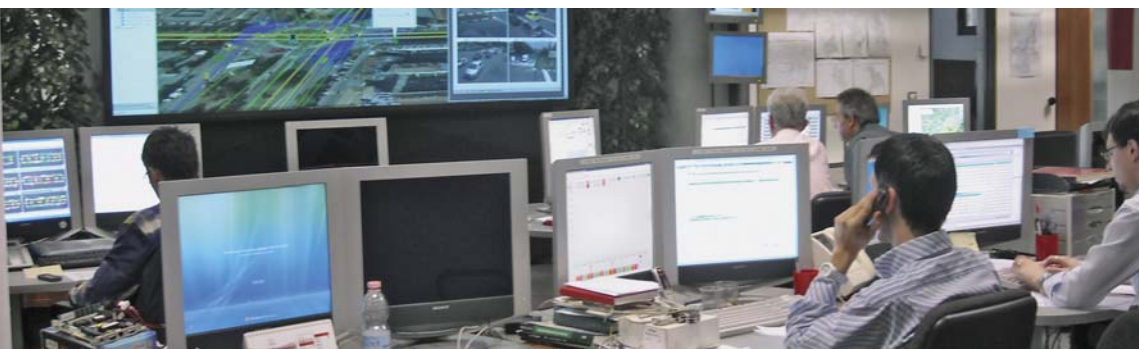
Turin is currently leading, under the technical coordination of 5T, the development of the BIP Project - Biglietto Integrato Piemonte - for the next Regional Electronic Ticketing System. **The aim of this project is the seamless integration of the entire mobility network of Piemonte in a unique contactless smartcard.** The BIP Project involves the whole regional public transport network in Piemonte, including road and railway systems, with over 3.400 public vehicles, around 300 railway stations, and more than 100 public transport companies.

The BIP ticketing system, which will be monitored and controlled by the Regional Service Centre managed by 5T, includes an electronic contactless smartcard-based multi-modal payment system for the regional public transport system, AVM (Automatic Vehicle Monitoring) systems for the public transport companies, on-board video-surveillance systems and integrated regional public transport fares. It is conceived as an “open system” and the BIP smartcard will be able to inter-operate with other circuits, such as bike-sharing, car-sharing, parking

payments, museums and other culture and tourist services, university students smartcards, bank contactless credit cards and so on. ■



More information
www.5t.torino.it





Ulm GERMANY

Collective Car Use

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Flexible Car Sharing



The car2go concept was developed by the car manufacturer, Daimler. It is based on standard car-sharing but takes the notion of flexibility a step further: car2go has no fixed rental-stations, so the cars can be rented and parked anywhere within car2go's operating area. Customers pay a one-time €19 registration fee and can then book cars on the spot or up to 24 hours in advance. To find a vehicle, customers check the web page, use the car2go smart phone application or call the call center. When they find a car, they can take it for as long as they want at a cost of 24 euro cents/minute. The car may be parked anywhere within the car2go operating area at the end of the journey.

The ability to start rentals on the spur of the moment or to make one-way trips is key to car2go's success. **Most journeys do not end at the same place they started, and most are done without prior reservation.**

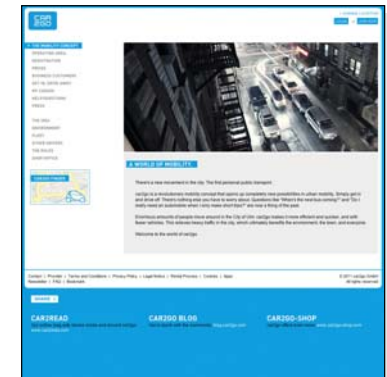
Making shared cars easily available may encourage some to leave their own vehicles at home or even to dispose of a personal car. A word of caution: research has not yet shown whether car2go is reducing car ownership or attracting those who would otherwise take public transport.

Smart Ride Sharing



Ride sharing systems exist in many places that allow you to arrange occasional or regular ride-shares through web portals, but Daimler is using social networks and smart phone technology to pilot a new system called car2gether that also offers the possibility of a spontaneous lift. **Registered members can post their journey offers or requests through a smart phone application; the content is updated every 15 seconds.**

Car2gether suggests passengers pay a time-based rate of 9.5 euro cents per minute. Success for such a programme depends on achieving a critical mass of members, thus the service is currently free, but a membership fee might be charged after the pilot phase. ■



More information

www.car2go.com/ulm/en

www.car2gether.com (German)





Award Winners



Aalborg DENMARK

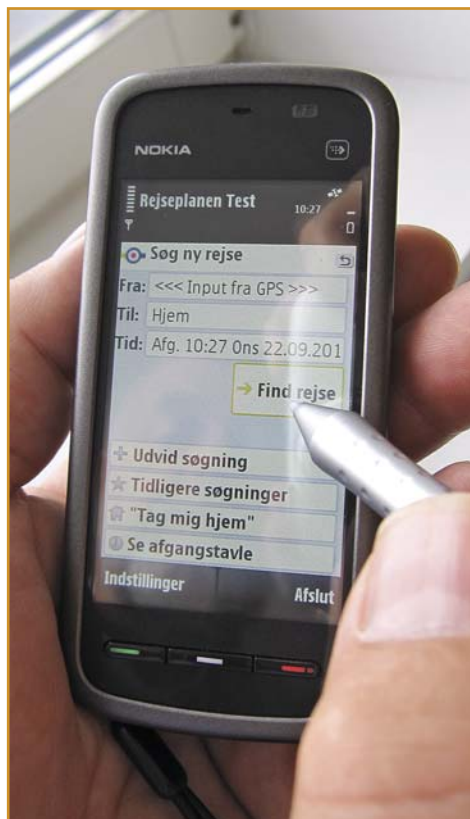
Intelligent Transport Systems

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ITS for a Medium Sized City



Denmark's fourth largest city is located right on the shore of the Limfjord. With its railway bridge, the Limfjord bridge and the Limfjord tunnel, Aalborg is the logistics gate towards northern Denmark and further connections towards Norway and Sweden.

Since the adoption of a first Action Plan for Traffic and Environment in 1994 Aalborg has applied ITS functions in its attempt to deal with constantly increasing traffic volumes. In cooperation with the Danish Road Directorate and the Regional Public Transport Authority of North Jutland, Aalborg as a medium sized city managed to establish an extensive ITS-based traffic management system.

ITS applications such as electronic congestion information, traffic emission monitoring and real time passenger information on mo-

bile phones have been implemented within a number of EU projects. A queue warning system has been installed at the motorway fjord crossing while a tunnel management system controls the Limfjord tunnel and automatically alerts the police when required. Aalborg's traffic information website offers, among other things, traffic forecasting based on the situation on the specific weekday during the previous ten weeks.

Aalborg now combines its various ITS services in its Strategic Traffic Management (STM) System for which it is honoured with the OSMOSE Award 2011. ■

Barcelona SPAIN

Green Area Project: Innovative Approach for Integral Management of Road Space in Barcelona



The city of Barcelona was honored with the Osmose Award in 2007 in the category “Innovative Demand Management Strategies” for its innovative approach in the integral management of road space. **Barcelona’s Green Area Project aims to improve the organised control of street space, to reduce congestion and parking indiscipline, and to favour non-motorised modes of transport as well as public transport and car sharing.** Constraints on car use by non-residents seek to improve service levels for higher-priority use such as goods deliveries. By eliminating the possibility of on-street car parking, road space can be reassigned to improve the walking and cycling networks.

The Green Area Project displays an integrated approach which includes green zones and off-street measures such as P&R and pricing as well as multi-use lanes in order to tackle network problems and forecasted difficulties.

As an example of a city logistics measure, the Municipality of Barcelona developed a system for quiet night deliveries in collaboration with two supermarket operators, Mercadona and Condis. The pilot projects showed that this initiative works and has good results: benefits in terms of reduced delivery times and associated lower transport operating costs. The city benefits from lower congestion and a reduction in emissions associated with stop-start driving.

Comparing June/July 2005 with the same period in the year before, figures have proven a 7.4% reduction in traffic. The City has reached the lowest levels of road indiscipline ever recorded and noise levels have been directly reduced. The project was accompanied by a city logistics, and enforcement approach and a comprehensive information campaign. ■



High Quality Public Transport

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Bremen

GERMANY

Car Sharing Action Plan Brings Systemic Improvement to Mobility and Quality of Life

Collective Car Use

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(and click on 'downloads' for Bremen's
Car-Sharing Action Plan in English)



The northern German city of Bremen is a forerunner in the field of car sharing. As of February 2011, the number of car sharing users in Bremen had reached more than 6,500, removing approximately 1,500 private cars from the city's streets. **Bremen considers car sharing as a core element in increasing the efficiency of urban transport systems through integration of all transport modes.** As early as 1998, the city implemented a combined offer of public transport and car sharing, called the Bremer Karte und AutoCard.

Today, Bremen is the first city to have adopted a municipal Car Sharing Action Plan in order to exploit the potential of car sharing. The main elements of Bremen's Action Plan include increasing the network of stations by providing on-street car sharing stations,

integrating car sharing stations into new housing developments, integrating car-sharing with public transport, management of the city's own fleet, and awareness raising and promotion of car sharing as one component in a package of transportation options.

The city's goal is to reach at least 20,000 car sharers by 2020 – thus removing 4,000-6,000 private cars from city streets and freeing up public space in inner-city areas where it is very limited. To achieve a similar saving of public street space by building parking garages, an investment of €25-40 million would be required. ■

Donostia San Sebastián SPAIN



With Public Transport Through the Hilly City



Donostia San Sebastián's picturesque coastline, embedded in hilly surroundings, has made the city a popular beach resort for more than a century. While half of the city's population lives in hilly areas, Donostia San Sebastián actively promotes public transport as an alternative to driving.

One measure to increase the capacity of public transport has been the design of two 'high quality public transport corridors', following the UNE-EN 13816 standards within the CIVITAS Archimedes project. New lanes have been installed and traffic lights have been programmed to ensure public transport priority, which enhances bus punctuality and reliability. The transport operator DBUS has set up a bus rapid transit (BRT) system on the 2 main bus lines of the city.

To increase the use of public transport amongst the increasing 60+ age group, the municipality carries out travel training within the AENEAS project. **Instructions are provided on how to improve safety, bus lines, transfers and ticketing are explained, while bus drivers are briefed about the needs of older passengers.**

As a result of these efforts use of public transport amongst the San Sebastián citizens has increased and already features above-average bus-riding rates with 157 trips per inhabitant per year. The activities have been honoured with the OSMOSE Award 2011. ■

Accessibility

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Urban Freight

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Emilia-Romagna ITALY

Smarter Logistics Through Cooperation



A prosperous region in Northern Italy, Emilia-Romagna exhibits a spatially diffused economic structure. This means the metropolitan areas within the region experience heavy congestion and some of the highest air pollution in Europe.

For its efforts to tackle these issues by improving its city logistics, the Emilia-Romagna region was presented with the OSMOSE Award in 2007. **A significant impact was the foundation of the Region-Enterprises Forum on Transport and Logistics.** Its task is to develop a strong interface between the regional public administration and the transport, logistics and industrial sectors within the region. Pilot projects and software applications have been developed to plan inbound flows and to assess the efficiency of a company's logistics organisation.

Through such cooperation up to 40% savings in transport costs can be achieved as well as an increase in a vehicle's load factor from 40% to 70%.

New infrastructure for the reorganisation of freight distribution in urban areas has been created, and from 2010 to 2012 incentives are being provided for rail-based transportation of goods. A report on regional economic development was published in January 2011 to prepare for policy making on the economy and environment.

Within the framework agreement on air quality and sustainable mobility, city ports have been established in 12 cities in the Emilia-Romagna region. Electric car mobility and the development of charging infrastructure is also being promoted. ■

Essex UNITED KINGDOM

Travel Training to Access Essex



Essex is a large County with urban and rural areas that can present obstacles accessing public transport. Essex puts a lot of effort towards promoting the use of sustainable transportation. Essex Travel Training was formed in 2006 following a pilot scheme in 2004 to assist people with additional needs to access public transport. The scheme has successfully trained over 900 people who are now travelling independently to school, college, training establishments and to work. In 2011 Essex was presented the OSMOSE award for transport accessibility.

Essex Travel Training prepares people of any age with limited mobility, learning difficulties, hearing impairments and blindness for their daily journeys by training them on road safety, personal safety, money handling, route planning, timing, problem solving and above all what to do when things go wrong. **Children of school age are prepared for independent travel**

before proceeding to college, which encourages them at a young age not to be dependent on organised transport, this in turn gives them choice and control later on in life. Shuttle buses were introduced to promote the accessibility of adult centres; libraries were used as meeting points as well as being set up as designated places of safety. ■



Accessibility

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(in German)

Freiburg im Breisgau GERMANY

Integrated Long-Term Approach for Sustainable Land Use and Mobility



The City of Freiburg is well known in Germany and beyond for its fruitful long-term approach to achieve a more sustainable urban mobility. Today, 68% of all trips in the city are made by bus, tram, and bicycle or on foot.

An important element of the city's success is the coordination between land-use planning and mobility planning in the city, aiming at accessibility of most services within walking and cycling distance. This is combined with a whole range of well-coordinated mobility measures in the field of public transport enhancement, cycling promotion, traffic restrictions, parking management and traffic management. The strategy will be continued in the coming years, following a planning framework provided by the urban mobility plan (Verkehrsentwicklungsplan) till 2020.

Successful examples of linking-up residential development and sustainable mobility policies are seen in the two new neighbourhoods Rieselfeld and Vauban. Urban and transport planners cooperated closely to develop an integrated concept applying a whole range of measures to enable and encourage sustainable mobility behaviour. They included amongst others a new tramway into Rieselfeld, a new parking concept in Vauban, traffic calming, a balanced mix of land uses, and an extensive citizen participation process. ■

Graz AUSTRIA

From the Frying Pan into the Tank



Austria's second biggest city Graz made a statement in its transport policies: It assigned itself to the concept of gentle mobility and, therefore, aims to provide short distances and good accessibility to all destinations. Graz was the first city in Europe which set up a speed limit of 30km/h in the entire city except major roads and decided on lower parking tariffs for low emission cars.

A pilot project was set up in Graz in 1994 in which the suitability of biodiesel as a fuel for conventional diesel vehicles was investigated. Frying oil was converted into biodiesel and within the "Ökodrive" initiative in 1999 used for the operation of buses in the public transport fleet. **More than 250 restaurants as well as private households participate in "From the frying pan into the tank".** The initiative was presented with the OSMOSE award in 2007.

As part of the EU programme CIVITAS TRENDSETTER Graz assigned the complete bus fleet to the use of biodiesel and additionally promoted it in a taxi fleet. However, not all engines turned out to be suitable for the use of 100% biodiesel and only Skoda taxis currently use it, accompanied by a number of new taxis running on gas. ■



Clean Vehicles

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Stockholm SWEDEN

Clean Vehicles for Clean Stockholm

Clean Vehicles

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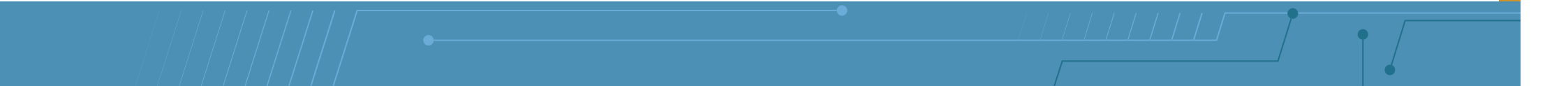


For many years, Stockholm has been working to become a sustainable city. In order to combat increasing numbers of vehicles and high noise levels the city has adopted a long term traffic policy: the "Traffic Environment Programme" and the "Greenhouse Gas Project" are successful initiatives which promote clean vehicles and which were presented with the OSMOSE award in 2007. These programmes are now fused into an overall climate programme that aims to reduce emissions to 3.0 tons per capita in 2015 and make Stockholm fossil free by 2050.

Complementary to this programme is the city's Clean Vehicles Strategy. The city-owned fleet already consists of 96 % clean vehicles while the city is currently working on a stricter national definition.

Among all vehicles in Stockholm clean vehicles currently represent 12 % (120,000) and 90 % of the city's filling stations offer fossil free fuel. Incentives such as reduced parking fees and subsidies have been used to implement the policy. **However, one of today's biggest drivers is the city's demand for clean transport in all procurements.**

Already in 1996, Stockholm implemented environmental zones in built-up areas, and its city centre became motor traffic free (except mornings and except taxis). Congestion charging in the city centre was implemented in 2007, which reduced traffic to 80 % compared to 2005 – while Stockholm's population grew by 25,000 in the same period. ■





Other Cities **to Discover**

Basel SWITZERLAND



Veloparking

The SBB railway station in Basel and the adjoining square form a major transportation hub, combining international and local rail, a tram and bus interchange, an underground car park and an underground bicycle park. The “Veloparking”, which is located below the train platforms, can be accessed via 4 dedicated bicycle ramps and 4 additional pedestrian entrances. It offers 1,620 standard places, 250 small locker boxes and 25 large bike locker boxes. Additional services include bike rental, restrooms and showers, bicycle repair services and even an Indian take-away. There is also a self-repair area with tyre inflators and charging stations for E-bikes. ■

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www.veloparking.ch

Copenhagen DENMARK



Parking Facilities for Cargo Bikes

Each day around 500,000 citizens choose to cycle in Greater Copenhagen. As 6% of the households owns a cargo bike, the city's Technical and Environmental Administration is experimenting with a new type of bicycle parks for cargo bikes which have the shape of a car. The shell is made of fibreglass and comprises four separate cabins, each with room for one bike. This means that four bicycles can park in the space normally taken up by one car. The ‘car’ has four solar powered ‘headlights’ that turn on in the dark hours. In addition, a solar powered light turns on inside when one of the doors is opened. Hooks and a net are mounted on the walls of each cabin, to store rain clothing and other cycling gear. ■

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www.kk.dk/cityofcyclists

Dresden GERMANY



Car Factory Supplied by Freight Trams

In November 2000, car manufacturer Volkswagen – in cooperation with the Dresdner Verkehrsbetriebe AG - introduced the CarGo Tram to move parts from a storage facility in Friedrichshafen to its manufacturing plant. The two blue 60-meter long trams can carry up to 214 m³ or 60 tons of goods each. CarGoTram runs every hour, if necessary, it can run on 40 minute cycles. The main route goes from the goods logistics center in Friedrichstadt via Postplatz and Grunaer Straße to the Straßburger Platz finally into the factory. Alternatively, the tram can run via the main station or other routes in the case of congestion. Every trip of the CarGo Tram prevents three truck transfers through the city centre and respective air pollution and noise. ■

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Ghent BELGIUM



Major Bicycle Parking at Railway Station

The transformation of the Sint-Pieters railway station and its surroundings includes the implementation of parking facilities for 10,000 bicycles: 2,000 bicycles can be stored along a 100 meter long “cycle street” that will run below the train platforms, while the other 8,000 parking places will be located in an underground parking area with direct access to the platforms. In the historical city centre of Ghent, additional high quality bicycle parking areas with rental and repair services are being constructed. In order to allow citizens in densely-populated areas to store their bicycles in a safe and convenient manner, the mobility department of Ghent is running test programmes with different types of bicycle lockers. ■

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Glasgow UK



Streamlining Bus Routes in Glasgow

Glasgow is the centre of the transport network for the West of Scotland and is experienced in operating advanced traffic management systems and control centres. With 57 rail stations and 15 subway stations, the city has the largest suburban rail network in Britain after London. About 40 percent of the traffic signal controlled network is covered by a bus information and signaling system (BIAS) which has been developed to provide bus priority measures and real-time passenger information supporting the city’s “Streamline” quality bus routes. Glasgow’s local transport policy “Keeping Glasgow Moving” was released in 2007 and aims to support sustainable modes of transport such as cycling, walking and public transport. ■

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Leicester UK



Using Environmental Pollution Data in Traffic Management

There are a wide range of pollutants in urban areas, many of them by-products of transport activities. The possibility to gather, manage and process pollution data enables a local authority to fully understand the impact of transport in its city. Leicester’s Area Traffic Control Centre (ATC), which incorporates over 850 sets of signals, 30 car park guidance Variable Message Signs, over 100 traffic cameras and 9 pollution monitors, collects environmental and meteorological data, as well as traffic and travel information. ■

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Lorient FRANCE



“Le Triskell”: High Level Bus Services

In 2007, Lorient, a city of 60,000 inhabitants located on the south coast of Brittany, and the regional transport authority Cap Lorient, launched “Le Triskell”, a high frequency bus service along three main corridors, designed to optimise transport efficiency and quality of service, and to ensure connections between the urban core and the 19 surrounding towns and villages. The system is characterised by clearly defined, straight bus lanes in light-coloured tarmac with distinctive stops and priority at intersections, which are also accessible to pedestrians, cyclists and taxis. At some points - where road space is limited - buses mix with cars, but priority is guaranteed through a clever combination of traffic-flow detection, magnetic bus detection and traffic signal control. In order to establish a better connection between the city centre of Lorient and the neighbouring Lanester which are separated by a tidal river, a new bridge was built to further extend the bus corridor. ■

More information: André Douineau, Cap l’Orient agglomération DGAET, Responsable du service Transports et Déplacements, +33 2 97 02 29 46 adouineau@agglo-orient.fr

Munich GERMANY



Neighbourhood Accessibility Plans

In order to improve the situation for non-motorised transport modes and buses, planners and citizens in one Munich neighbourhood established a so-called neighbourhood accessibility planning process. Citizens were invited via a variety of means to take part, and “citizen juries” set up through a random invitation process ensured broad participation. The process included neighbourhood excursions on foot, by bicycle, on in-line skates and by bus, as well as dedicated excursions for older people and children. 555 individual suggestions were evaluated and grouped into 230 concrete proposals. To date, 23% have been implemented and 31% are planned to be. An “immediate measures programme” made small successes quickly visible. ■

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Nantes FRANCE



Le BusWay

The Busway, introduced in 2006, is a 7 km long bus rapid transit line which connects the ring road to the centre of Nantes in less than 20 minutes. In order to guarantee a high level of service, the bus system adopted the elements that made the tramway a success: a dedicated lane, 15 well-designed and equipped stations, priority at intersections, high frequency and extended hours and 6 park and ride facilities. Accessibility is guaranteed through low-floor buses with automatic ramps and stations with level access, passenger-boarding assistance, adapted seats for persons in wheelchairs and acoustic interfaces for ticketing and information. In case the number of passengers will continue to increase, the infrastructure has been designed in such a way, that the BusWay can be easily transformed into a “TramWay”. ■

More information

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Salzburg AUSTRIA



Training Increasing Confidence and Satisfaction of Older Bus Passengers

The Salzburg public transport provider, StadtBus, is adjusting early to the demographic change toward an ageing society. The company established a passenger training programme for its older bus passengers as it understood that keeping older people mobile helps them to continue to take part in social life and stay healthy. StadtBus also realised that seniors are an important customer group and that serving them well also serves the bus company well. Within the context of the AENEAS project, StadtBus created a training manual with a DVD – available in English and German – which other public transport providers may also use to train their older bus passengers. ■

More information:

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www.aeneas-project.eu

(click on “downloads” for passenger training manual in English)

Vienna AUSTRIA



From Public Phone Booth to Recharging Stations for Electric Vehicles

In order to support electric mobility in Austria, Telekom Austria launched a trendsetting pilot project to turn some of its public telephone booths, whose use decreased since the introduction of mobile phones, into battery recharging stations for electric cars, scooters and bikes. Telekom Austria is thus retrofitting 30 of its 13,500 phone booths around the country. The first phone booth prototype with an integrated e-charging station is located on Lassallestrasse 9 in Vienna. During the trial period charging will be for free. After that, the electricity provided by various power supply companies can easily be paid via mobile phones. The process is initiated via SMS, an RFID plug or an RFID card (contactless technology). ■

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Zurich SWITZERLAND











































Citizens Involvement to Improve Accessibility and Quality of Urban Space


The overall transport strategy (“Mobilitätsstrategie”) of Zürich includes sub-strategies on walking, cycling and public transport, as well as one for disabled people, older people and children. This politically supported strategy is an important back-up for stakeholders that work on enhancing neighbourhood accessibility planning. The mobility strategy itself is consistent with other policies such as the “Public Spaces Strategy”. Apart from being a well elaborated policy, it is remarkable that pedestrian mobility is not only seen in the light of traffic issues and accessibility, but clearly links to the quality of urban space. The City of Zürich regularly monitors cycling and pedestrian streams and the number of people that use public spaces through counts. Citizens are involved via surveys, meetings or district excursions in finding the right solutions. Also local interest groups for walking and cycling are closely involved. ■

More information: Urs Walter, City of Zurich municipal works service, cycling and walking
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ALPHABETIC OVERVIEW

City	Category	Concepts	City	Category	Concepts
Aalborg	Award Winners		Essex	Award Winners	
Barcelona	Award Winners		Freiburg	Award Winners	
Basel	Other Cities to Discover		Ghent	Other Cities to Discover	
Berlin	Innovation Leaders	  	Glasgow	Other Cities to Discover	
Bremen	Award Winners		Göteborg	Innovation Leaders	  
Copenhagen	Other Cities to Discover		Graz	Award Winners	
Dresden	Other Cities to Discover		Helsinki	Innovation Leaders	
Eindhoven	Innovation Leaders	 	Krakow	Innovation Leaders	
Emilia-Romagna	Award Winners		La Rochelle	Innovation Leaders	  

City	Category	Concepts
Leicester	Other Cities to Discover	
London	Innovation Leaders	 
Lorient	Other Cities to Discover	
Madrid	Innovation Leaders	 
Manchester	Innovation Leaders	 
Munich	Other Cities to Discover	
Nantes	Other Cities to Discover	
Paris	Innovation Leaders	 
Rotterdam	Innovation Leaders	  

City	Category	Concepts
Salzburg	Other Cities to Discover	
D. San Sebastián	Award Winners	
Stockholm	Award Winners	
Stuttgart	Innovation Leaders	 
Turin	Innovation Leaders	
Ulm	Innovation Leaders	
Vienna	Other Cities to Discover	
Zurich	Other Cities to Discover	

Notes

Further Information

Below you can find the contact details of the NICHES+ consortium partners, whom you can contact for more information on the NICHES+ project, its thematic areas and general information on the NICHES+ concepts.

For further information on the specific innovative concepts, you can contact the urban transport experts involved in the NICHES+ project. Their contact details are available on www.osmose-os.org, the portal for urban transport innovation launched in the framework of the first NICHES+ project.

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P22: ULTra

P23: Transport for London

P24: CRTM

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NICHES+ Mission

The mission of NICHES+ is to build on the success of the first NICHES project by stimulating a wide debate on urban transport innovation between relevant stakeholders from different sectors and disciplines across the EU and accession countries, in order to promote the most promising new urban transport concepts, initiatives and projects and transfer them from their current “niche” position to a mainstream urban transport application.

NICHES+ Team

The NICHES+ consortium is composed of a variety of experts in the field of urban transport, ensuring the knowledge of the academic sector (Universities of Southampton and Newcastle), the expertise of consultants (Rupprecht Consult, TRANSMAN) and the multiplier effect of European networks (Polis, EUROCITIES).



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This document has been prepared by the authors in the framework of a project funded by the European Commission, DG Research. It does however not necessarily reflect the views of the European Commission.

For more information contact the NICHES consortium partners (contact details available on page 101) or visit:
www.niches-transport.org or www.osmose-os.org

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This document has been prepared by the authors in the framework of a project funded by the European Commission, DG Research. It does however not necessarily reflect the views of the European Commission.



NICHES+ is a Coordination Action funded by the European Commission under the Seventh Framework Programme for R&D, Sustainable Surface Transport