

Gentle Mobility

The Graz Model of Success



GRAZ

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A tramway slides along the pedestrian area in Herrengasse.



Jakominiplatz is a public transport



Gentle mobility also means...



...a lot of recreational space for people

The People's Right of Way

A high quality of life is essential for living in the city. If the quality of life deteriorates, the image of the city as a good place of residence will suffer. As a consequence of the poor quality of life, the residents will relocate elsewhere, which in turn will have fatal effects on the economic situation of the city.

The city of Graz places much importance on quality in all areas of life. The quality of life is not only defined by an intact environment, ideal living conditions and attractive economic surroundings but good conditions for individual mobility behavior as well are a defining aspect of the quality of life. In the concept of gentle mobility, people have the right of way. However, this has not always been the case. In the 1950s and 1960s, traffic planning was almost exclusively aligned to motorized private transport. This comes as no surprise given the limited number of motor vehicles on the roads then and neither was the steep increase in motor vehicle registrations foreseeable at that time.

This orientation, in combination with a dramatic increase in the growth of the volume of traffic, led to massive environmental and traffic problems.

This is why the city of Graz said goodbye to motor vehicle-oriented road planning and early on followed new paths. In its new approach, the city focused on future-oriented traffic measures such as promoting bicycle traffic, the development of the public transport network, extensive 30km/h zones, modern parking space management, and modern technologies for reducing exhaust emissions.

The decrease in the number of accidents in restricted speed zones alone proves the effectiveness of this rethinking. All these traffic measures are a consequence of the implementation of the traffic guidelines 2000, or of the so-called 'Gentle Mobility', the traffic philosophy of Graz which has found its place in several EU- Programs and has been acknowledged internationally.

The pioneer in the implementation of the concept of 'Gentle Mobility' was the City Councilor of Traffic and former Vice Mayor of Graz, Mr. Erich Edegger. Even in the face of great adversity, this passionate cyclist never gave up trying to convince people of the be-

nefits of this innovative concept. He never lost sight of his vision of giving space and room to move back to the people.

He placed emphasis on strengthening the weakest players in the system. Children, elderly people, handicapped people, parents with small children and most of all pedestrians and cyclists contribute more than anybody does towards an intact environment and a good quality of life through their method of mobility.

The aim of the concept of 'Gentle Mobility' is to utilize various means of transport as environmentally and city-compatible as possible. The following aspects are central to this concept: More security for all traffic participants, a more environmentally friendly and efficient handling of traffic in which unnecessary car rides are avoided, as well as public space being made as attractive as possible, in other words, space for people.

These guidelines led to a conflict of interests. The limitations of the motorized individual traffic especially have caused heated debates, which are still ongoing today. This conflict of interests has caused delays and setbacks for this intelligent philosophy in both the past and today.



Graz – City of Diversity

The Kunsthaus Graz, a Museum of Contemporary Art, which was opened in 2003, the year in which Graz was Cultural Capital of Europe, is a milestone of cultural life in Graz.

European Cultural Capital, UNESCO World Cultural Inheritance, bicycle-stronghold, domain of many Nobel Prize winners, cultural stronghold, and melting pot of many cultures - Graz has many faces. The city portrays itself on some occasions as metropolis, on other occasions as contemplative oasis with Mediterranean flair. But Graz always enchants the tourists and its visitors cannot help but succumb to its charm.

For centuries, or more precisely for millennia, the Graz Basin has been a place where humans have liked to settle. On an area of about 128 square kilometers, where today roughly 350,000 people bustle around daily, the first 'citizens of Graz' settled between 3000 and 2000 before Christ: Stone-age people who were still far from living in village-structures. Those structures emerged about 800 years before Christ. In the areas of Pfauengarten and Karmeliterplatz at the foot of the Schlossberg, archeologists discovered the remains of the oldest settlements in Graz built during the Hallstatt period while constructing the largest underground parking lot in Graz.

The name of the city dates back to the year 955 when Graz- or rather 'Gradeč', the Slavic word for 'small fortress', was first mentioned. This small fortress stood - where else could it have stood - on Schlossberg (473 m). In 1128, the name 'Gradeč' changed to 'Gracz' recorded in a certificate in the library of Stift Rein - the oldest still occupied Cistercian

monastery in the world located about 15 km from Graz. In 1260, Graz was awarded its town charter and coat of arms, the panther of the Earl of Steyr.

Graz - boomtown in the Middle Ages

Between 1438 and 1493, Graz experienced its first boom and period of prosperity. Archduke Friedrich V., later Emperor Friedrich III., declared the city at the river Mur his favorite residence and designed and built the so-called 'City Crown' around the cathedral. Graz experienced its second period of prosperity under the rule of Archduke Karl II., who had the old Jesuit University built in Hofgasse and in this way laid the cornerstone for the center of study and education which Graz is today. Today approximately 40,000 young adults study and are trained in one of the four main universities or in one of the study courses of the Joanneum University of Applied Sciences to become respected professionals who contribute to the city's

youthful dynamic during the academic year.

The period of flourishing growth towards the end of the Middle Ages, which can be noted still today in the uncountable buildings of this period in the city center, increased the popularity of the city of Graz as a place of residence. At the same time, new wealth made it increasingly attractive as prey for plundering armies who passed through the area. With the continuous and growing threat of the Turks, the Schlossberg was transformed into a fortress in 1543, and in 1642, the city added the arsenal (Zeughaus) to its fortifications. Of the 188,000 weapons and suits of armor which the armory held at the time, 32,000 are still on display in this, the world's largest historic armory today. Napoleon finally did away with the fortifications of the Schlossberg. In the peace treaty of Schönbrunn, it was decreed in 1809 that the fortress had to be destroyed, probably out of annoyance and rage because the armies of the little Corsican had not been able to conquer it.

From the 19th century onwards, the development of Graz accelerated. In 1868, the city park (Stadtpark) was given its current appearance; in 1887, the first horse-drawn tram went into operation; in 1899, the Opera House was built; in 1912, the General Hospital was opened and by 1938, Graz consisted of 16 districts. The 17th district (Puntigam) followed in 1988.

Graz - top modern

Towards the end of the 20th Century, Graz was more and more in the international spotlight, the Metropolis on the River Mur. In 1999, the city center was declared UNESCO World Heritage Site because of its charm as a busy and lively place with historic architectural substance and its unique roof landscape. Also in 1999, the pilgrimage church in Mariatrost was upgraded to Basilica. In 2002, the city's exhibition hall (Stadthalle) was opened with the World Buddhist Meeting 'Kalachakra' in the presence of the Dalai Lama, a clear sign of the ongoing intercultural and interreligious dialogue in Graz. A path taken which earned the city the Europe Prize as early as 1979 and which was consequently followed with the establishment of the City Office for Integration in 2005. In 2003, Graz became the Cultural Capital of Europe and built the Island in the River Mur (Murinsel) and the Kunsthau Graz, a Museum of Contemporary Art, both of which have caused a furore on a global scale ever since.

Graz - City of Economy and Culture

The title Cultural Capital is proof of the rich cultural life in Graz. Besides the established and renowned art institutions and festivals such as 'Styriarte', 'Steirischer Herbst', 'Forum Stadtpark' or 'Camera Graz', other events such as 'La Strada' or the 'Jazz-Sommer' have long been established and are today highly popular with their fans who are willing to travel long distances to take part in and enjoy the festivals.

Approximately a third of all Styrian inhabitants work in Graz - statistics



In the year 2002, the main square of Graz was redesigned

indicate 184,000 employees. The Auto Cluster around 'Magna Steyr' and the traditional company 'AVL' is the biggest employer in Graz and has a strong reputation on the international market, just as, for example, Siemens-SGP-Verkehrstechnik has. The 'Wood Cluster', 'human.technologie. styria' or the 'Material Cluster' ensure future oriented innovation and ensure the position of Graz as a working place and business location. The companies are supported by research institutions such as Joanneum Research, the Christian Doppler Research Association and the Austrian Academy of Sciences. The competence centers in Graz which work in various fields from biocatalysis to the virtual motor vehicle are a source of comprehensive knowledge and innovation.

Graz at the Center of South-East Europe

Graz owes its status as a business and research location to its central geographic location in Southeast Europe. Within a radius of 300 km lie the cities Vienna, Linz and Salzburg, but also Budapest, Zagreb, Ljubljana or Trieste. In order to improve the city's accessibility, Graz airport has been developed into an air terminal, though small in comparison to other airports but excellent in service. In addition, the Koralm line and the Semmering tunnel are being built to increase passenger and freight volumes to and from Graz.



World Cultural Inheritance since 1999

Graz is growing

Since the end of the 19th Century, the population of Graz has steadily been increasing. (Source: Central register of residents)

1850:	about 50.000 inhabitants
1900:	168.808 inhabitants
1951:	226.476 inhabitants
1971:	248.500 inhabitants
1991:	237.528 inhabitants
2010:	257.898 inhabitants

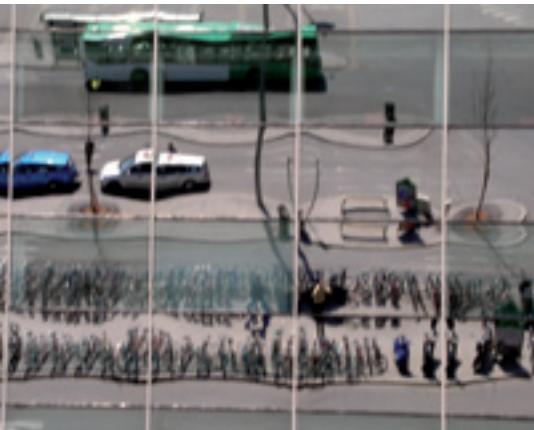


The clock tower (Uhrturm) is the symbol of Graz

Decision: A City for Cars or More Space for People



Today unthinkable: Cars in the city center



A mirror image of mobility



Safe and on foot in the pedestrian zone

For a long time, the car promised unlimited mobility for everybody. On the upside, it could keep its promise - mobility is higher than ever before. On the downside, there are accident victims, traffic noise and environmental pollution. The dream of unlimited mobility has long turned into a nightmare.

The first automobile was an epochal invention in 1886. Ever since Karl Friedrich Benz's first outing in his three-wheel, one horsepower 'motor carriage', the car has become the symbol of technical innovation and economic growth, but also of social status. One's ego is reflected in the car one drives - and this may be the reason why discussions on cars often do not get beyond the emotional level. As in most European and North American countries, the traffic policy for the city of Graz has concentrated on motorized individual transport for a long time, which promised many advantages in its early days (and undisputedly still does so today). Traffic policy defined itself through measures aimed at increasing road networks. High performance streets were supposed to keep the traffic flowing smoothly and in this way help reduce exhaust emissions and fuel consumption. In order to ensure the flow of unrestricted motor vehicle traffic, tramlines were shut down. The circular line no. 2 on the Glacis was gradually closed down during the years 1962 to 1971, the line no. 3 to Gösting as early as from 1955 to 1957. During the year 1950, the Graz tram network was 41.3 km long. It was reduced to only 29.3 km ten years later. The last trolleybus in Graz which ran between Griesplatz and Strassgang stopped its services after June 28, 1967.

Not only public transport was cut back, many open spaces had to give

way to cars and traffic. Previously green courtyards were turned into parking lots, many parks and trees fell victim to tarmac.

The calculation, however, did not pay off. More space for traffic caused more traffic, by now a well-known fact. The problem of poor mobility arose again - now with a time delay and to an even larger extent. The ever-growing proportion of automotive vehicles in traffic increased environmental pollution. The danger of particulate matter as a health risk which considerably reduces the quality of life has only been discovered recently and which in the area of Graz and surroundings is mainly caused by traffic.

The climatically adverse conditions of the city geographically located in a basin together with the weather phenomenon of temperature inversion which is common to Graz in winter, regularly results in pollutants exceeding the threshold values. In the 1970s and 1980s it was mainly smog which suffocated the city, today it is particulate matter, nitrogen oxides and in summer, the ozone. The bad air quality, the increasingly criticized traffic noise and the negative results of the road safety records in the 1970s caused a rethinking process in city politics. City planning was no longer only car oriented.

This decision was made easier by the historic structure of the city. The medieval city center of Graz was, of course, built anything but car friendly; the narrow alleys show their charm far more effectively without cars. The aim of the city's political representatives was to maintain and improve the quality of life without restricting the requirements of mobility. In order to be able to direct the development of traffic and its consequences in the region of Graz, data on the current traffic situation was collected and evaluated. Experts worked out three scenarios which included various measures and their effects up to the year 2010. The scenario which proved best for the in-



A problem for car drivers and inhabitants: traffic jams, pollutants, traffic noise. The alternative: a gentle mobility

habitants and the city was to be the basis for a future oriented and a general comprehensive concept for innovative measures.

Commuters - a traffic problem

More than 184,000 employees work in the city of Graz. Many of them commute daily from regions outside the city limits. The Integrated Traffic Concept of 1995 was based on an estimate of 70,000 commuters. Today this figure has doubled because of lower housing costs, a more attractive living environment in the outskirts and beyond the city limits and because of an increase in the motorization of society.

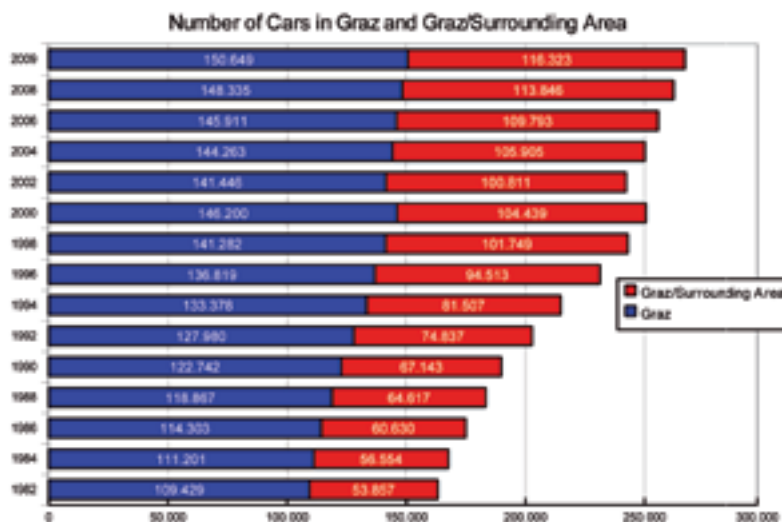
The trend continues to point towards an increase in commuters, which is a problem for the limited traffic capacity of cities which grew historically. Therefore, the concept of 'Gentle Mobility' aims at decreasing the number of commuters using private cars and moving them over to public transport. Parking space management with new park & ride facilities (as already instal-

led at Magna Steyr, at the slip road to the Autobahn A2 at Sternäckerweg or in Weinzödl) in combination with new routes and projects to make public transport more attractive (the new line no. 4 leading up to the park & ride facility at Sternäckerweg in Puntigam or the new local transport hub along the Southern railway in Puntigam and Don Bosco), should reduce the pressure on the traffic situation in Graz.

Traffic in Graz

Every day 52,000 citizens of Graz use 40,000 cars to go to work. 136,000 commuters come to Graz daily in 100,000 cars. On an average day, 220,000 cars pass through the city and every day 47,000 people cross the city limits using public transport

(Source: Graz Parkraummanagement GmbH, Executive Board for Urban Planning, Development and Construction, Department for Traffic Planning)



In 1987, the city was faced by a sobering prognosis: Traffic experts predicted an increase in motor vehicles of 25 percent by the year 2010. The prognosis led to three scenarios for a decision on future traffic policies.

The 'Scenario Trend' indicates a development without control measures. Only the traffic infrastructure would be adapted to accommodate the fast growing rate of traffic and motorization. In this scenario, the area of roads would increase by 30% in the center and by 50% in the access roads leading to the center.

The Trend

The result: the volume of traffic of private motorized transport would increase by 30%, whereby the percentage of public transport, cyclists and pedestrians would decrease considerably.

Traffic noise and exhaust emissions would have negative effects on inhabitants and on the environment. Traffic security for weaker players such as cyclists or pedestrians would decrease, as would the urban quality of life and the value of property located in central areas of the city. Overdevelopment and relocation to the communities surrounding Graz would increase.

Car-Friendly City

In the scenario 'Car-Friendly City', automobile traffic is actively promoted and encouraged. Parts of the historic city center would have to give way to the needs of traffic such as streets and parking spaces. This scenario calls for an increase in road capacity by 70% and, just as in the scenario 'Trend', an increase of 30% for parking spaces. The negative consequences of the scenario 'Trend' would thereby increase further and manifest themselves in a massive way.

Gentle Mobility

The third scenario, 'Gentle Mobili-



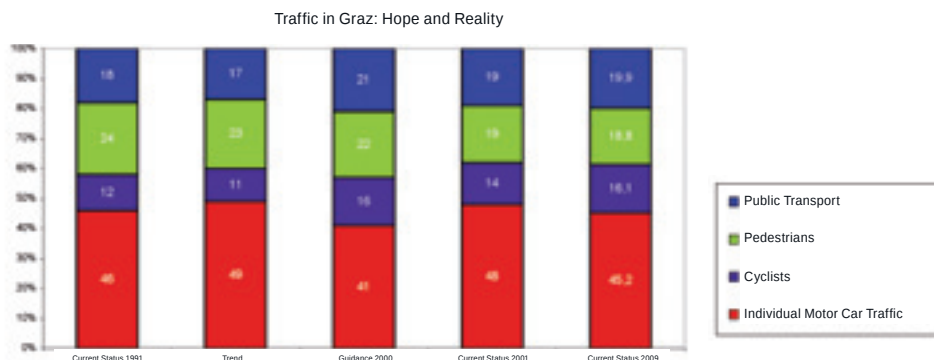
ty', offers a clear improvement for inhabitants, environment and traffic security. It places focus on the promotion of pedestrians, cyclists and on public transport. The concept provides control measures which restrict motorized traffic to a necessary limit and help to reduce unnecessary journeys in favor of 'gentle' possibilities of mobility. As a result, airborne pollutants would decrease while traffic security and quality of living would increase.

The analysis of the three scenarios came to a definite result: The implementation of the scenario of 'Gentle Mobility' would not only improve the quality of life for the inhabitants of

Graz but would also sustain and improve mobility in the city. Therefore, a guideline for gentle mobility was passed as the 'Transport Policy Guideline 2000' in the Town Council of Graz in December 1992.

Radical Changes in Traffic Policies: A Long and Stony Road

The way to 'Gentle Mobility' remained long and stony for those who wanted to implement the 'Transport Policy Guideline 2000.' As early as the 1970s, the first strategies were



Idea for the Future



strengths and weaknesses.

The results of the so called VÜP solution pointed towards moving away from the one sided promotion of private motorized transport: only by an enhancement of the public transport system (tram and bus) can the overall traffic situation be better managed and, at the same time, the environmental situation be improved without compromising the accessibility of the city.

The „Guidelines 2000“

For all the reasons stated above, the package which was adopted by the District Council encompassed an intensive investment in bus and tram services combined with a focused parking space management to bring advantages for all parties involved. The package allows an expansion of the road network only if residents are not unreasonably negatively affected by it. The capacity of the inner city road network is not to be expanded so as not to cause even more road traffic and so as not to increase health risk caused by particulate matter or carbon dioxide emissions.

The principles of 'Gentle Mobility' served as the basis for the 'Transport Policy Guidelines 2000' which were adopted by the Town Council of Graz. They state five goals including strategies for the implementation which should help and, in fact, have helped to realize 'Gentle Mobility' in Graz. The 'Guidelines 2000' were in accordance with the 'Austrian Integrated Traffic Concept 1991' and the 'Styrian Integrated Traffic Program 1991'.

formed with the aim of covering the need for mobility in the cities at the same time as keeping the negative effects on people, the city and the environment as low as possible. On average, city inhabitants are on the move in the city for a little more than one hour per day. During the remaining 23 hours, they are affected by the mobility behavior of others. The task in hand is, therefore, to obtain a balance between the quick and the safe accessibility of destinations and the need for the highest possible quality of life.

A reorientation in traffic planning was called for. For a long time, concepts for road building and

public transport were developed independently. All elements of urban traffic are, however, interdependent. Supply and demand have a great influence on the choice of means of transport, mobility behavior and ultimately, the entire city planning.

These findings served as the basis for comprehensive mobility concepts spanning various means of transport. Between 1977 and 1985, traffic experts of the city of Graz worked out a 'Solution Across Various Means of Transport' (VÜP) for the eastern part of the city for the first time. In this concept, all means of transport were considered according to their



A bike & ride facility



The Most Beautiful Train Station 2003



Modern: A Biodiesel-driven bus



Today unthinkable: Through traffic in Griesgasse (top left), on Jakominiplatz, (left centre) and in Schmiedgasse (bottom left, right)

Good Accessibility

Good accessibility to all destinations of city, regional, long distance and goods traffic is a first point of focus of the new traffic planning.

Not only the city itself, but also destinations within the city have to be and have to remain easily accessible, and this not only for one's own vehicle but especially for public transport, which is to be extensively expanded and promoted according to a new state of ecological and traffic awareness of the city.

Tolerable Traffic

Traffic must become safer, more environmentally friendly and more tolerable for the city. Speed limits

must be adapted to the respective environment and not the other way around.

Short Distances

Overdevelopment is one of the major problems of our times. New housing concepts in the surroundings of Graz and shopping centers on the periphery of the city not only increase the demand for more motor vehicles, they also attract motorized traffic. This is where communal planning policy is challenged to come up with solutions for the necessary infrastructure in such a way that distances are shortened in order to allow for accessibility on foot or by bicycle.

Room for all Means of Traffic

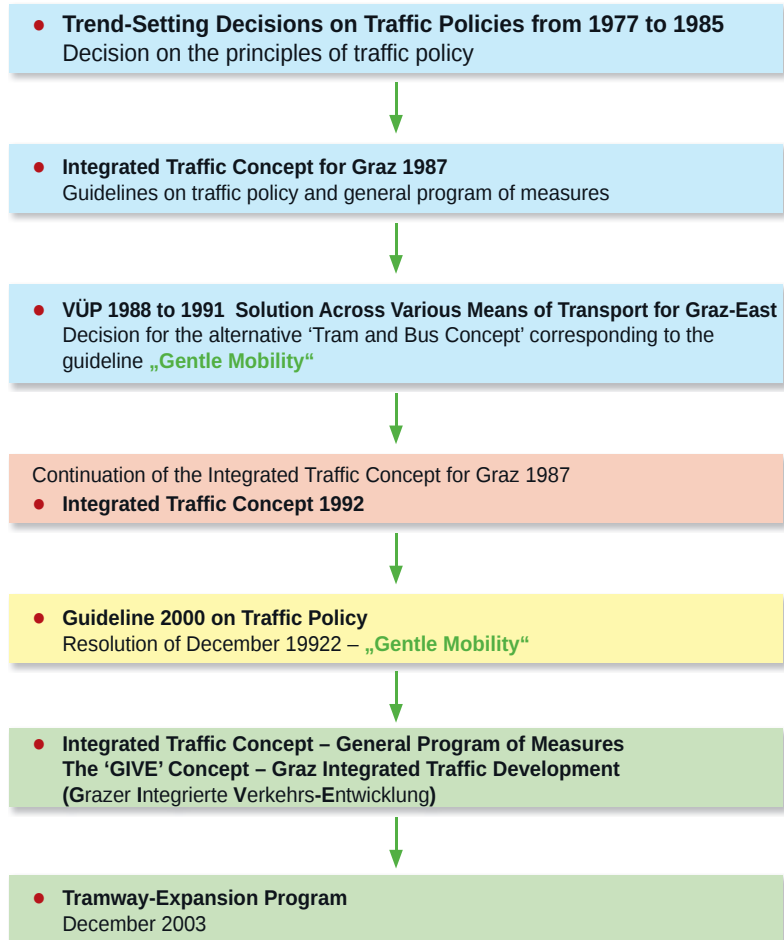
The ratio of cyclists and pedestrians to the total of amount of traffic has to increase further. Public transport has to expand and the proportion of motorized private transport has to be reduced to an environmentally acceptable level. Particular focus is put on the ecological and economical interaction of all means of transport.

Citizen Participation

There is little else inhabitants of the city feel as strongly about as the consequences and effects of traffic, since each one of us is daily confronted with them. This is why traffic policies are democracy at its best and it is also the reason why the 'Guidelines on Gentle Mobility' are the result of a long public dis-

Decisions on Traffic Policies of the City of Graz

Source: Department for City Development/Department for Traffic Planning, City of Graz Council



The inner city of Graz has not always been a place designated for people. As late as in the 1970s, cars were allowed to pass through Sporgasse (right), parked on Jakominiplatz or in Schiedgasse, all places which have now become pedestrian zones.



discussion among citizens, experts and politicians, which included a lot of information sharing. This resulted in a high level of acceptance of the measures, as confirmed by two public opinion polls conducted on the topic in July 1995.

The „GIVE“ Concept

The next step towards 'Gentle Mobility' was an integrated traffic concept, the so-called Graz Integrated Traffic Development ('Grazer Integrierte Verkehrsentwicklung –GIVE'), which was decided on by the Town Council of Graz at the end of 1995. Its implementation was to be organized according to 215 points, which had been discussed and defined by experts in this field. The GIVE Concept includes focal projects,

guidelines for routine work and measures in transport policies, which include the region around Graz, the Province of Styria and the State.

Traffic Organisation

In order to bring the commercial, shopping, and commuter traffic down to a 'necessary' level, a new way of handling traffic, especially in the city center, is called for:

Pedestrian zones, bicycle paths or 30 km/h zones have effectively improved mobility in the city. The new traffic organization works on the basis of central pedestrian zones, which are only crossed by public transport and bicycle routes. Adjacent to the pedestrian zones, access roads are open to

inhabitants and delivery traffic. In order to improve the difficult parking situation along the streets, several new underground parking garages with hundreds of parking places were built in the city center over the course of the past years. Outside this central area, the chargeable short term parking 'blue zone' extends to the ring roads, followed by the new 'green parking zone'.

Exemption rules allow for long-term parking possibilities for residents, whereas commuters may avoid parking problems by using the park & ride facilities with direct access to public transport.



Space for People

Almost all areas of the city core are designated pedestrian zones to allow for space for people. Motorized traffic is limited to a necessary minimum.



Walking is not only one of the most primal forms of movement of people, it also is healthy for the body and the circulatory system. Who walks, sees more, can appreciate his/her environment more and contributes to an intact environment.

The proportion of pedestrians in Graz has been decreasing continuously over the last few decades and is currently at 14%. The cause of this trend is the break-up of long-established structures. Local grocers give way to the big shopping centers which offer large parking spaces to their customers. Overdevelopment and an increase in motorization give people the impression that they can no longer do without cars to get where they need to go. So it comes as little surprise that the

proportion of pedestrians of all journeys had decreased from 24% in the year 1982, it then fell further to 21% in 1991, and finally reached 14% in 2004. By the way, in 1991, a percentage of 23% had been estimated for the year 2000.

Space for People

In the year 1986, the city of Graz set the course for the implementation of the concept 'Gentle Mobility' for the inner city areas. The historic Old Town in the center and the historic Murvorstadt (River Mur Suburb) were converted to pedestrian zones, which, in some areas may also be used by cyclists.

In the mornings, this zone is open to commercial deliveries. Pedestrians may stroll through those areas as without being subjected to the dangers

of road traffic. The inner city has once again become a recreational space for people and may be used for various activities. On the main square, for instance, which covers an area of 11,500m² and which after a 2-year conversion was reopened in 2002, various activities such as beach ball, volleyball and street soccer tournaments have taken place. The Karmeliterplatz, after renovation ended in 2004, now shines in new splendor and is the latest addition to the pedestrian zone of the city. In the winter of 2005, it was used as an ice skating rink for adults and children for the first time.

The Freiheitsplatz has also been spared some of the traffic. Since 2004, part of the square has been converted from a parking area to a recreational area for both the inhabitants of Graz and for tourists.

Awards

In 1992, Graz received the 'Most Pedestrian-Friendly City of Austria' award. In 1993, the city was the winner of the campaign 'Road Traffic Safe for Children' organized by the Austrian Road Safety Board. In 1994, Graz was once again rewarded for its efforts in the campaign 'Children on the Road' organized by the Austrian Transport Clubs, and in 2005, the Austrian Road Safety Board honored Graz with the Traffic Safety Award.

Full Steam Ahead

Graz does not intend to rest on its laurels. The goal of the city is to be able to establish a comprehensive, comfortable and secure network of pedestrian zones. Especially in the outskirts of the city, many measures must still be taken to ensure the protection and convenience for those on foot. Pedestrian axes are to make the different parts of the city more accessible on foot and allow for unproblematic and rapid connections to various destinations.

This 'green network', which also offers advantages to cyclists, will connect all important destinations, so that people may set out from home on foot and not by car. If shops, schools, childcare facilities or public transport stops are made more easily acces-



Areas with little traffic (pink) adjoining pedestrian zones (blue)



On Karmeliterplatz: pedestrian zone including a water fountain, used now as a playground instead of being a parking area.

sible for pedestrians, many car rides will become avoidable. In this way, the quality of life in the city will improve. In addition, Graz wants to offer many attractions to its inhabitants and guests travelling on foot. The Island in the river Mur, which was designed by the American star architect Vito Acconci for the year 2003 in which Graz was 'European Cultural Capital', is a pedestrian zone in the center of the river. In the part designed along the lines of an amphitheater, outdoor theatre performances are staged, and in the covered half of the Island, an attractive café overlooks the river

flowing around it. The two halves are connected by a small children's playground.

On the left bank of the river, next to the Mur Island, the Mur promenade begins. It was opened in 2002 and leads under the Main Bridge and Teggethof Bridge downriver to the area of the Augarten Park. The promenade, with its many viewpoints, benches and places to relax, is always busy and very popular with the public. Climbers enjoy the climbing wall, which was opened in October 2003 and which is located on the promenade near the Mur Island.

A Green Network for Graz

Green zones stand for a high quality of life in a city. In Graz, many green zones serve as routes of gentle mobility at the same time. The 'Green Network' extends over 550 km and enhances the quality of city life for cyclists, pedestrians, children and adults.

If you look at a satellite picture of Graz, the green face of the city becomes visible. Not only from a distance, but also from close-up, Graz presents itself as a green city. Parks, tree-lined avenues, playgrounds, green courtyards and flowering gardens may be found all over the city.

The 'Green Network' connects all these green zones, linking residential areas with parks, playgrounds and ultimately with the woods at the city limits. The linking happens in a 'green way', by means of pathways, green foot and bicycle paths and other routes reserved for 'Gentle Mobility'. The 'Green Network' consists of green areas and their connections.

The 'Green Network' takes the expansion of the city into account. It prevents green areas from disappearing where new housing estates and traffic routes are built or where extensive renovation takes place. Parks, playgrounds and front gardens and even individual trees are important for city ecology and the quality of life.

In order to ensure the existence of sufficient green areas, the need for their protection was stated in the City Development Concept as early as 1980. The 'Green Network' is the logical consequence of the City Development Concept in this area. At the same time, it is not an obligatory norm, but a dynamic system that serves city-planning schemes. The long-term goal is the preservation and further development of a network linking all green areas, which allows



nature to exist and to be experienced in an urban context. The 'Green Network' has four major objectives. For one, there is the traffic function. On green paths, roads with reduced traffic, along meadows or streams, one can travel from home to the grocery store, to work or to the next park or playground in a pleasant and healthy way. The car can be left behind.

Recreational and Healthy

The second objective is the recreational function. Doing sports in sport facilities, parks and playgrounds or simply spending time there is just as healthy as it is relaxing.

Taking it easy after a tiring day is possible without taking a trip to faraway places. Thanks to the 'Green Network', it is possible to relax nearby, at places in easy 'Gentle Mobility' reach. A further function of the network lies in the ecological importance of green zones to the city. It is home to various species of wildlife and plants, it

improves the air quality in Graz and influences the climate and filters airborne pollutants, and the network has a creative and aesthetic function. Tree-lined avenues are not only beautiful to look at, they are an element of design which may give normally unattractive parts of the city a pleasant look and also makes orientation easier. The overall idea is to offer safe and recreational mobility for children and adults alike, relaxation on the doorstep, beautiful green streets and residential areas and to provide clean air as well as ecological diversity within the city. In Graz, this idea becomes reality.



Bicycle Route in Augarten

With its many innovative ideas for the promotion of bicycle traffic, Graz gained the reputation of being the 'Bicycle Capital of Austria'. Graz continues to place strong emphasis on the bicycle as the 'gentle means of transport' par excellence.

Cycling is the thing to do in Graz. One look at the main square proves how popular the bicycle is in Graz. The parking spaces for bicycles are mostly crammed and cyclists characterize the cityscape as much as pedestrians do. This should not come as a surprise. Ever since its commitment to 'Gentle Mobility', the city has put a great deal of effort into the expansion of bicycle routes in Graz and has created a broad network of bicycle paths. Starting from the city center, the bicycle path network spans the city right up to the outskirts and even beyond into the communities surrounding Graz. In 2008, its length was 110 km with continuous expansion foreseen. The goal the city has set itself is 190 km of bicycle paths and routes so that cyclists can move safely and quickly around the city.

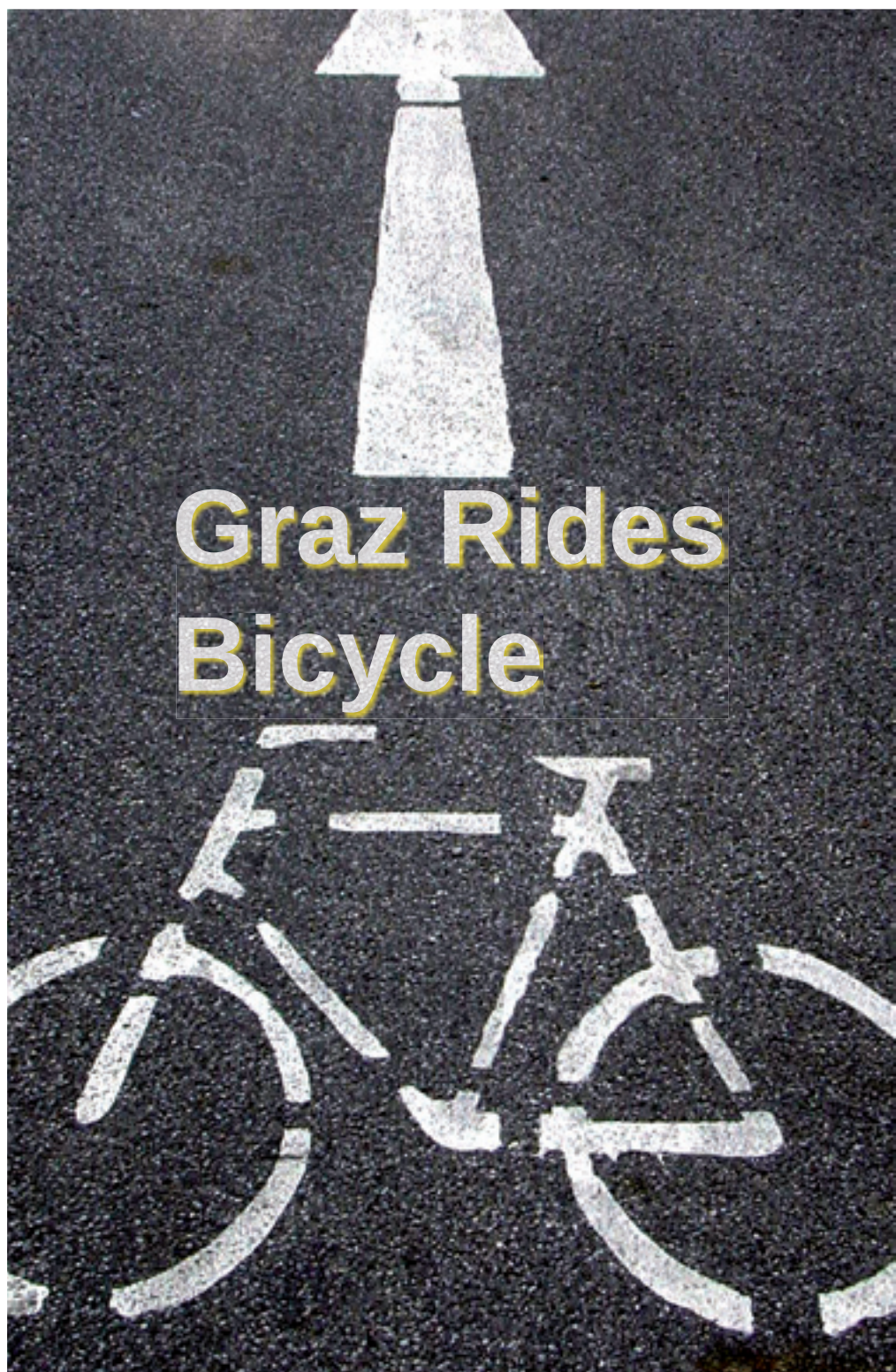
Right of Way for cyclists

In order for cyclists to take the shortest route possible, the city has opened up one way streets for bicycles and has granted exceptions for bicycles in traffic-free zones. More space for bicycle paths and bicycle parking spots has been designated. Where cars are stuck in traffic, cyclists can easily slip through.

Velo-City 1999

In cooperation with the city of Maribor, Graz held the „Velo-City Congress“ in April 1999.

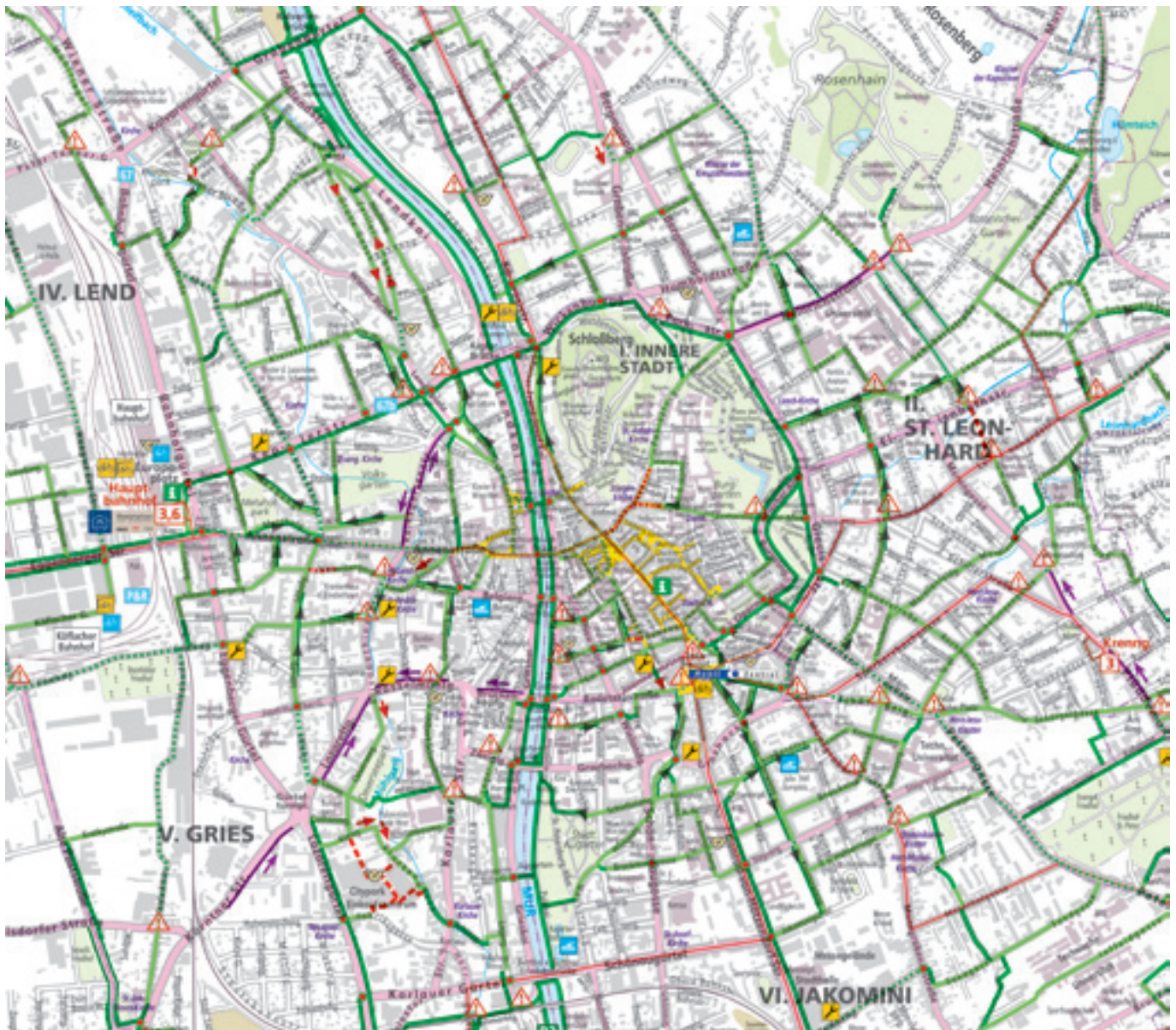
400 experts from 38 countries exchanged their expertise, knowledge and information on the topic. The congress had a sustainable effect on the city. The bicycle path along Lendkai was, for instance, completed during this event.



190 km will be the length of the Graz bicycle path network after its completion



Model of best practice in bicycle traffic: the bicycle underpass beneath Kepler Bridge



Net of bicycle routes (110 km)

After 'Velo-City' many connections to the outskirts, tangential routes between districts and routes out of the city into the countryside were established. A highlight in the bicycle events of Graz was the connection to the 'Alpentour', the longest bicycle route across Austria which spans 1134 km with Graz and Vienna as its corner points. The staging of the European Mountain Bike Championship in Graz and Stattegg in the year 2003 and the 'UEC Mountain Bike Marathon Masters European Championship' which took place in Graz and Stattegg from 2005 to 2007 proved once more that Graz is a stronghold and important center of cycling.

More Cyclists in the City

The measures which the city has ta-

ken are showing effect. In the year 1982, the proportion of cyclists was about 8%, which increased to 14% by the year 2004. The goal is set at 16%. In order to achieve this goal, the city has made further efforts and taken more measures to make bicycle riding even more attractive to the inhabitants and commuters of Graz.

Bicycle Station, Digital Bicycle Route Map, Rent-a-Bike and Bicycle Service Unit

In December 2004, the bicycle station was opened at the main train station of Graz. As the first of its kind in Austria, it offers bike & ride. To commute to the city by train and to continue from the train station to your working place by bike - no problem in Graz. A rent-a-bike facility and a bicycle service

unit provide fast and easy mobility on two wheels. Those who are not familiar with Graz and want to explore the city by bicycle may make use of the online digital bicycle route map which is user-friendly. After typing in the destination of choice, the map shows the best bicycle route connections to get you to your destination. The digital map also indicates danger spots, rent-a-bike places and bicycle repair shops. The digital bicycle map was initiated during the course of the EU-mobility project 'Trendsetter'. A special facility for cyclists, pedestrians and skaters is the underpass beneath Kepler Bridge which cost 1.5 million Euro to construct and was opened in the beginning of 2006. At the end of 2007, the previously dangerous s-bend at the underpass at Augarten Bridge was made less dangerous.

Right of Way for Public Transport



Especially regarding the public transport system, a lot has been achieved in Graz since the year 2000. Several tangential bus lines have been established; new local traffic hubs have been built; three tramlines have been extended. The overall aim is to make public transport extremely attractive to the extent that the steady growth in the number of journeys by car is finally halted.

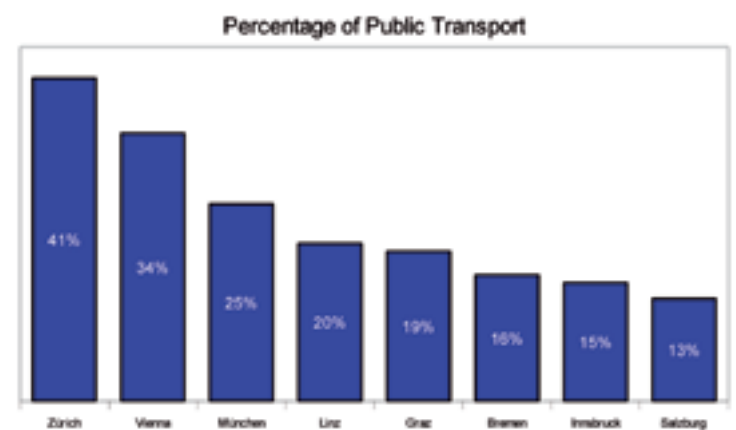
As a consequence of overdevelopment and the growing number of people and vehicles in the greater area of Graz, the volume of traffic has in-

creased drastically. Traffic, especially of cars between the surrounding countryside and the city itself has reached alarming proportions. About 157,000 people come from the greater Graz area into the city every day, of which 21,000 use public transport whereas 136,000 come by car - either driving themselves or traveling with somebody. A further increase in these numbers can be expected. The concept of 'Gentle Mobility' must lure this massive number of motorists over to public transport. In 1991, the proportion of public transport to the overall traffic volume in Graz was 18%. This amount increased slightly to 19% in 2005. The objective stated in the 'Guidelines 2000' of increasing the proportion of people traveling by public transport to 21% by 2010, seems, in the face of the increase in

total number of trips per passenger cars, to be more relevant than ever. In order to be able to fulfill this requirement, we not only have to increase the capacity of regional public transport, but also make public transport a more attractive offer. Graz is working hard to achieve this objective.

Attractive Public Transportation

The City of Graz, the Province of Styria and the State have spent millions of Euros on investments in the public transport system. In March 2001, the first of 18 new 'City Runners' was introduced. The highly modern, comfortable low-floor tram type has proved successful and more of these Variotrams will be added between 2009 and 2012.



Public transport in Graz could not do without the tram. More than 52 million passengers ride it per year.

In the course of the construction of the Koralm line, two new local traffic hubs were built along the Southern Railway in Puntigam and Don Bosco. Here, commuters can connect to bus and/or tramlines directly and in this way comfortably reach their destinations in the city.

On February 1, 1999, the first tangential line, the 'route 62' was put into operation. It runs through six districts in the western part of Graz. In the year 2000, 'route 64' was added to service the southern districts of the city. The city presently has an extensive network of tangential lines comprising the bus lines nos. 41, 50, 52, 58, 62, 63 and 64. Since January 2003, in order to provide the 'night owls' with an alternative to the car, seven night bus lines have been established which safely carry their passengers home during the early hours of the morning. Since 1997, at the last bus stop, a taxi

waits to take the passengers from the bus stop directly to their doorstep. In addition, the buses of Graz Public Transport, GVB, are role models as far as the environment is concerned. Already in 1994, the city initiated the project Ecodrive which aims at replacing diesel fuel with biodiesel derived from old cooking oil. Today all buses are fuelled with biodiesel only. Furthermore, by the end of the year 2006 all buses had been equipped with particle filters for the reduction of particulate matter.

More Tramway

In 1999, the electric tram celebrated its 100th anniversary in Graz. Today, it is the foundation of a well functioning public transport system. The trams run a total of 11.6 million km per year on a citywide integrated network

of 286 km and carry up to 314,000 passengers per day! In order to be more attractive still, the tram network was lengthened by about four km between 2005 and the end of 2007. Tram line no. 6 now runs to Peterstal and offers an attractive alternative to the car in this catchment area of roughly 12,000 inhabitants. Line no. 4 was lengthened by 1.3 km and now runs all the way to the shopping center Murpark, where a park & ride-facility has been installed. In this way, commuting, changing transport means and shopping are perfectly combined. Line no. 5 now turns around at the local traffic hub, Puntigam, which, in 2006, started operations at the same time as the opening of extended tramline no. 5. There, commuters can easily change from train to bus or tram. Residents and passengers alike appreciate the noise-insulating and vibration-free substructures.

Transport Association (Verkehrsverbund)

On February 28, 1994, the Styrian Public Transport Association was founded. The Transport Association is a cooperation between 63 Styrian transport companies (as of 2008). Styria is divided into zones in such a way that with only one transport association ticket (Verbundticket), several zones can be crossed, a unified system for 1.2 million Styrians. Already in the first year after launching the new system, the number of passengers using public transport increased by 16%. More than 70 million passengers yearly now use the Styrian Public Transport Association lines (excluding schoolchildren) of which 55 million use them in and around Graz. Including schoolchildren, public transport in Graz alone carries more than 100 million passengers a year! The Styrian Public Transport Association actively cooperates in the concept 'Steirertakt'. Starting from 1996, rail traffic in the Graz region and its surroundings (train stations and stops) has consistently been made more attractive. The goal is a suburban railway for the Graz region, an alternative for commuters consistent with the concept 'Gentle Mobility'. The Desiro low-floor railcars of the Aus-

trian Federal Railway, ÖBB, which have been connecting Graz and the surrounding region since 2004, are a good example of how the railway can become the more attractive alternative to the road. The suburban railway was launched on December 12, 2007, with 71 new railway connections to Graz.

The financing of the transport association system in the Graz region is shared between the State (33.33%), the Province of Styria (42.43%) and the City of Graz (24.24%).

Owing to the fact that the boroughs surrounding Graz contribute practically nothing towards the transport association lines, although the lines run through these very communities, efforts are being made to establish a fairer funding key.

A Better Way of Travelling Abroad

Commuters who have to cover great distances cannot help but use the railway services. This is why the Austrian Federal Railway, the City, the Province and the State are making improvements in order to upgrade the railway services.

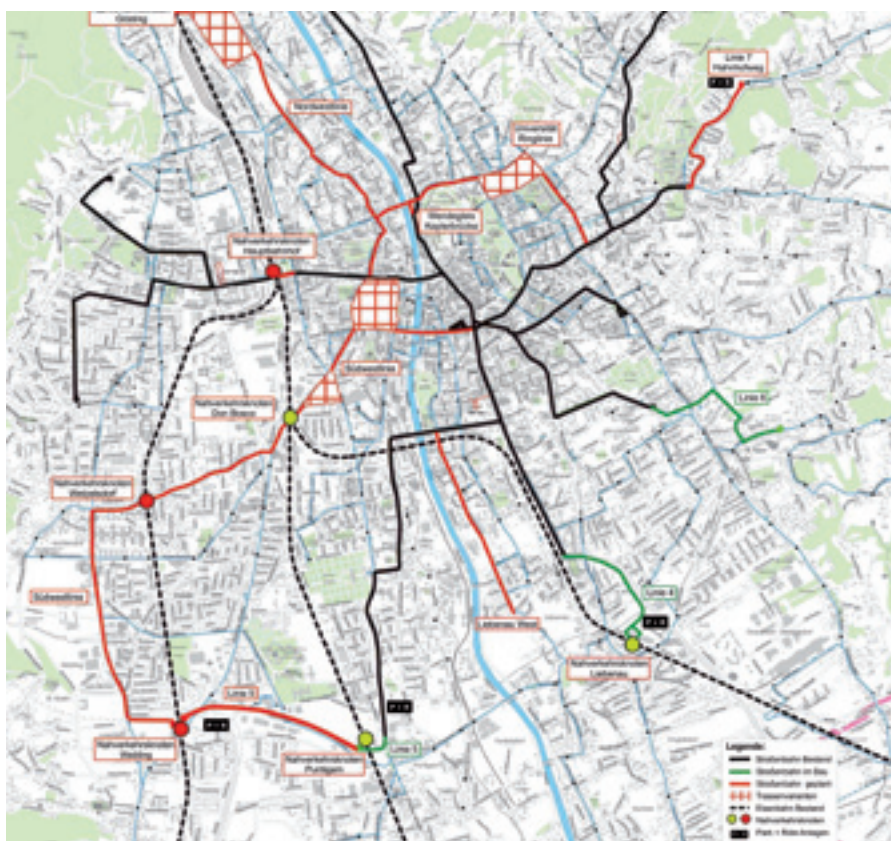
The central train station in Graz was reconstructed from July 2001 to March 2003 in such an attractive way

that passengers voted it the most beautiful train station in Austria. Still today, a huge ceiling painting which was completed as part of 'Graz: European Cultural Capital 2003' evokes a unique ambience in the central entrance hall.

During the reconstruction of the central train station, the conversion of the Southern Railway Line to a high-performance line had already begun. After completion, it will take less than one hour to travel between Graz and Klagenfurt. In addition, the railway line is going to be extended to the airport Thalerhof where connections will be underground so that the passengers are offered a comfortable and easy journey to the city center. This construction site has been in progress since 2004, while the Koralm-Tunnel-Project is being undertaken within the time frame of 2008 to 2016.

Railroads instead of Roads

In June 2003, construction on the freight terminal Werndorf was completed. Over an area of 500,000 m², freight traffic is transferred from road to rail. This service helps to decrease truck traffic in the city of Graz and so contributes to the protection of the environment.



Map of the network extension of tramlines



Dynamic passenger information



Highlights of the Tram Line Network

The local traffic hub Puntigam connects tram, rail and bus services with car and bicycle traffic.

Three tramlines were extended between 2005 and 2007, adding 3.5 km to the network of tramlines in Graz. Commuters, motorists and cyclists as well as shoppers benefit from this improvement.

Many improvements were made in public transport during the period from 2005 to 2007, even more improvements than in 1986 when the tramline from Alt-Eggenberg to the Accident Hospital was lengthened. The network of tramlines in Graz was extended by 3.5 km. Cyclists, motorists as well as pedestrians benefit from these tramline extensions.

Local-Traffic Hub

How does it work? For instance, by upgrading the Koralm line to a high performance railway leading south from Graz Central Railway Station, seven new underpasses have been built. Thereby, cars are no longer subjected to long periods of waiting at railway crossings. Pedestrians, cyclists and the car traffic now pass more easily from east to west. Thanks to the building of the new Koralm line, the tram line no. 5 was

also lengthened and since December 2006 passes through one of the underpasses to the new local traffic hub at Puntigam and has become an attractive link between the rail, tram, bus, bicycle and car.

Changing Means of Transport and Shopping

For commuters and for shoppers, the tramline no. 4 was lengthened by about 1.3 km and now leads up to the shopping center Murpark in the district of Liebenau. There, people can park their car in the new park & ride facility and connect to public transport and/or go shopping in one of the 80 shops located in the shopping center Murpark. At night, the shopping center's 2000 parking places also serve as park & ride spaces for guests attending events in the city's Exhibition Hall (Stadthalle) or in the inner city.

Line Extensions for the Residents of Graz

The tramline no. 6 was lengthened from the previous last stop Schulzenstrum to Peterstal, not for commuters but for the residents of Graz. The line extension was constructed with a special low-vibration 'Graz design'. Since November 2007, line no. 6 has

been lengthened by 1.8km and now runs through Petersgasse, Eisteichgasse, Breitenweg and Peterstalstrasse to the Wienerberger residential estate. Roughly 12,000 people live in this catchment area and benefit from the extended tram line no.6.

The city of Graz, the Province of Styria, the State, HL- AG and other project participants dug deep into their pockets in order to help out and promote the public transport system of Graz. The extension of line no. 6 cost 21.4 million Euros. Line no. 4 cost 10.4 million Euros and line no. 5 including the local-traffic hub cost 15.5 million Euros.

Faster Travel

In order to facilitate faster travel by tram and bus, the city has installed more bus and tram lanes. In addition, the traffic lights sequences have been set to correspond to the schedules of bus and trams as another measure of speeding up journeys by public transport.

Speed 30/50 km/h in Graz

Since the introduction of the 30 km/h zone in the year 1992, the number of accidents has decreased and the quality of life has greatly improved due to the reduction in noise and exhaust emissions.

The road network in Graz is 996 km long, (not including highways within the city limits). 802 km of the total are designated 30 km/h zones. Only main roads are 50 km/h zones.

The introduction of 30 km/h zones proved to be the most hotly discussed step on the way towards 'Gentle Mobility' - but at the same time, the most effective. This 'deceleration' policy improved the quality of life in Graz and increased traffic safety enormously. In front of schools, the risk of accidents has halved due to the introduction of 30 km/h zones. Here, the

risk of fatal accidents has decreased by up to 90%!

Fewer Injuries

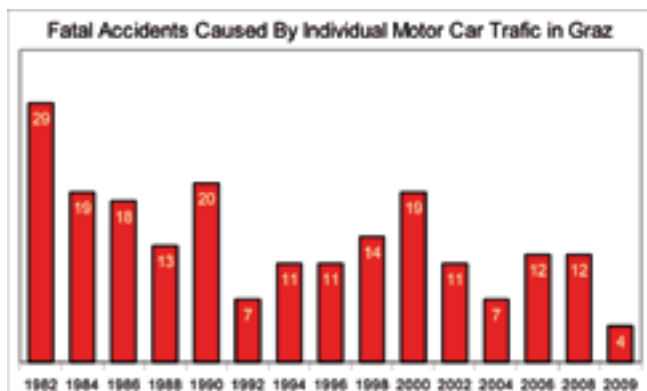
Today, 30km/h zones are met with a high level of acceptance - the latest expansion by 23 km at the end of 2003 (in 40 streets) was highly welcomed. Currently, 80% of all roads in Graz are designated 30km/h zones. On the remaining 20%, i.e. main and priority roads, 80% of all traffic accidents in Graz occur. This improvement of the traffic situation, which has drawn international attention, was achieved after running a pilot phase between September 1992 and August 1994 and which showed extremely positive results. With the introduction of the zone, the number of accidents fell by 24%, so that about 250 people per year have been spared injury in traffic accidents!

In addition, the noise level and the exhaust emissions have reduced no-

ticeably in the zone. The emissions of nitrogen oxides (NOx) could be reduced by 24% within the test zone and by 2% throughout the city. The level of noise pollution subjectively perceived by residents living next to previously busy roads has decreased noticeably.

More Traffic Security

Probably due to more frequent speed limit controls, speed levels at first decreased. However, as an increase in the speed level has been observed in recent years. Since 2006, private speed controls have been encouraged and supported in the zone in order to further improve traffic safety. Initial rejection of the zone - in 1992, only one in three motorists supported it - eventually gave way to wide approval. In 1994, two out of three people were already in favor of the zone and today it has long proved its worth and is no longer a topic of dispute.



Since 1992, 50 km/h are only allowed on main roads



Short-term parking zone in the city offers 13,000 parking spaces. Environmentally friendly vehicles can park at reduced rates

Parking in Graz

The concept of parking space management has proved to be an effective instrument for the management of motor vehicle traffic. The goal remains to effectively shift commuter flows to public transport.

A city has to be accessible; a city needs parking spaces. This is why the city of Graz has aimed at facilitating shopping traffic and promoting business traffic. At the same time, it is problematic for all cities to guarantee a sufficient amount of parking spaces for all inhabitants, shoppers and commuters. With the concept of 'Gentle Mobility', the main goal was to shift the massive commuter flows to public transport. The space gained was to be designated to cyclists, joggers, pedestrians and children's play areas.

The Blue Zone

This concept functioned well thanks to specific parking facility management and parking facility policies. In 1995, there were 12,500 parking spaces

available inside the limits of the ring road, 8,000 of which were transformed to the so-called 'Blue Zone' with a maximum parking duration of three hours. Ever since the last extension of the Blue Zone in 2005, the city has managed more than 13,000 parking spaces, which, on weekdays between 9 a.m. and 8 a.m. (9 a.m. to 1p.m. on Saturdays), require a parking ticket costing 1.20 Euro per hour and have a maximum time limit of 3 hours.

The Blue Zone extends to the rings roads, a distance which gently forces commuters to make use of either park & ride facilities or of public transport for their way to and from work.

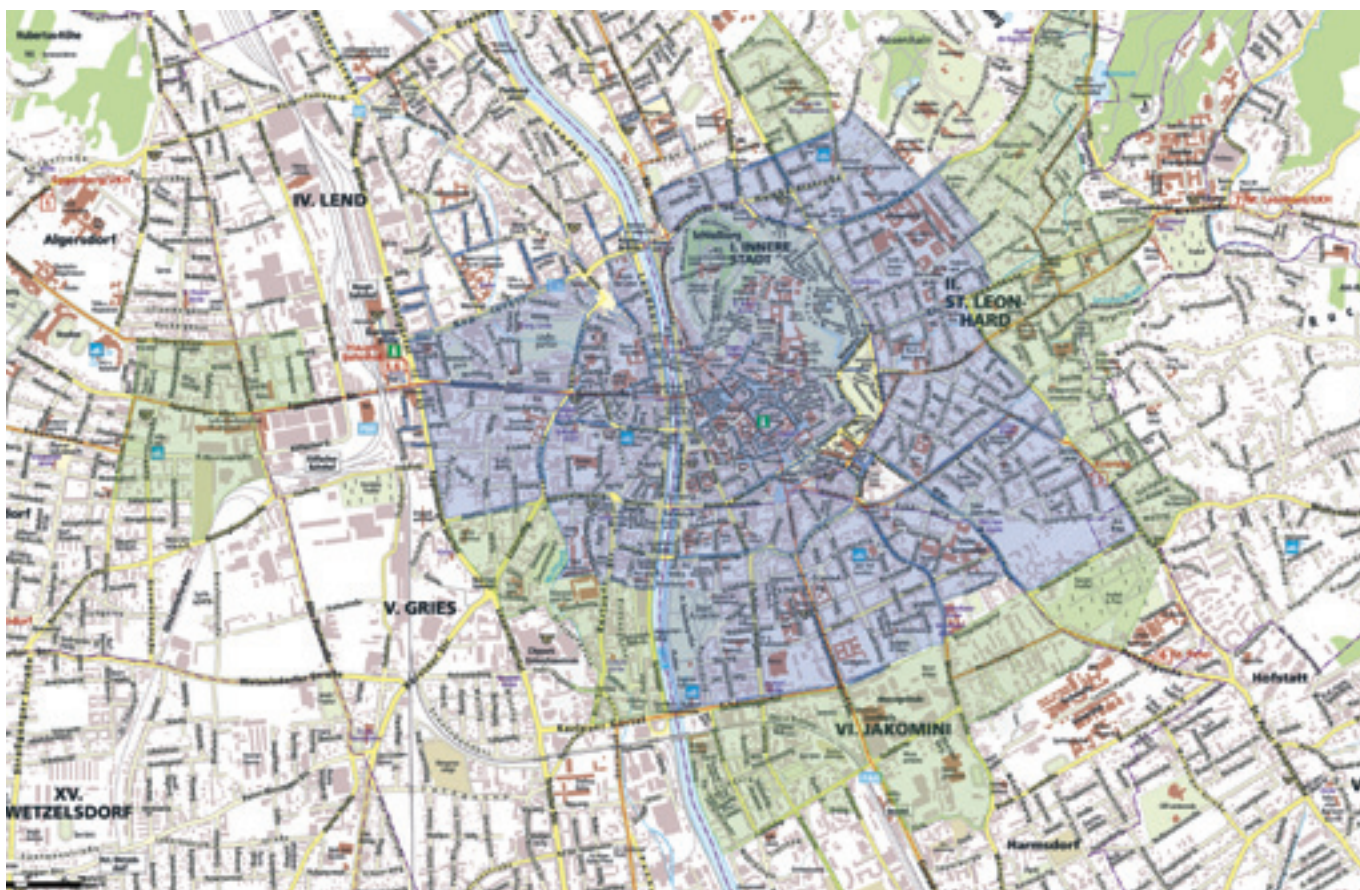
Inhabitants of Graz may purchase residents' parking tickets, which permit them long-term parking within the Blue Zone. Since the extension of the Blue Zone and the introduction of residents' tickets, the complaints about a lack of parking possibilities for residents have to a great extent stopped. A special lower rate ('ecological parking') is charged for environmentally-friendly vehicles. These fulfill the Euro-IV Exhaust Emission Standard and emit low levels of CO₂. These vehicles can park for 40 instead of

the usual 80 cents per half hour. With these parking times, the city sends a signal of tolerance rather than of strict punishment. Only those who exceed their parking period by more than 13 minutes receive a fine.

The Green Zone

"Parking Space Management is the only effective means of convincing people to change," stated former Vice Mayor Erich Edegger. He introduced the Blue Zone, which was the forerunner of 'Gentle Mobility'. In 2006, the 'Green Zone', a further parking zone which practically surrounds the Blue Zone, was introduced by the City Councilor responsible for traffic, Gerhard Rüschi. The Green Zone aims at stopping commuter cars, which cause major traffic problems in Graz, at the city limits and at reducing parking pressure in residential areas.

When it was initiated in the summer of 2006, the Green Zones offered 8,000 parking spaces. Parking in the Green Zone costs 40 cents per half hour. To park all day costs 5 Euros, but commuters may purchase a monthly ticket



The lower priced Green Zone adjoins the Blue Zone in the city center

for 34 Euros and a yearly ticket is offered for 324 Euros.

Residents only pay four Euros a month for a parking place inside the Green Zone, which ensures a guaranteed space for them. The Green Zone is actually an alternative model to the city toll, which is implemented in London or, for instance, Stockholm and which should control the volume of traffic. Graz does not want to ban traffic entirely from the city, but a system with a graduated increase of parking tariffs aims at making the change over to using 'Gentle Mobility' means of transport more attractive. The earnings from the Blue and Green Zones are spent on further traffic policy measures.

Parking Garages

In order not to negatively affect shopping traffic, many underground parking garages were built between 2001 – 2005 offering hundreds of additional parking spaces to those who shop in the inner city. Since 2004, one can leave the car right in the center of the city and go shopping or en-

joy the cultural highlights of Graz as there are now underground parking facilities beneath Kunsthhaus, a Museum of Contemporary Art, and Nikolaiplatz, the department store Kastner & Öhler and also below Karmeliterplatz (the garage called Pfauengarten). The shortage of parking spaces in the inner city, much complained about in the late 1990s, has finally been eliminated. The parking garage Pfauengarten offers parking at very reasonable cost, with parking tickets at an hourly rate of 2.2 Euros during daytime and one Euro per hour after 6:30 p.m. The construction of this parking garage enabled the conversion of two squares, Freiheitsplatz and Karmeliterplatz, into pedestrian-friendly areas. The entire Karmeliterplatz has become a pedestrian zone; children are happy with the water fountain in which they are allowed to splash and play and on Freiheitsplatz, cafés now offer inviting outside sitting areas.

Park & Ride

To take away parking possibilities from commuters without offering them

an alternative was never considered. Instead, Graz came to the conclusion that the best alternative would be to establish park & ride facilities, where commuters can easily and conveniently transfer from car to public transport so as to get to their place of work in the city. Several projects have already been realized, such as the park & ride facility in Andritz, the parking garage near the company Magna Steyr in Liebenau and the park & ride facility on Sternäckerweg, which went into operation along with the extension of the tramway line no. 4 in March 2007. The park & ride facility at the local traffic hub in Puntigam was completed in 2008 and more projects are to come, for example, in Graz-Webbing and in Mariatrost at the eastern access road to Graz.

In order to win user acceptance for park & ride, the city offers tickets for the park & ride facilities at attractive rates. The monthly ticket for the park & ride facility at Sternäckerweg, for instance, costs 53 Euros- and includes the monthly ticket for public transport. This is only 16.90 Euros more than the cost of a monthly ticket for public transport alone!

Graz Sets Trends



Complete info on the schedule



Door-to-door information at Mobil Zentral



The E. Steininger-Steg is the longest bridge in Graz.

Since the year 2002, Graz has been a partner in the most important EU program on facilitating and promoting innovative traffic measures. 'CIVITAS Trendsetter Graz' sets new trends in traffic policies and extends the success story of the concept 'Gentle Mobility'.

An impressive total of 17 projects regarding traffic policies has been realized in Graz thanks to the EU project 'CIVITAS Trendsetter'. Together with the project partners Stockholm, Lille, Pecs and Prague, Graz implemented this EU program which was one of eight winning projects of the CVITAS tender of the European Commission. The project started in 2002 and was designed for a period of four years.

During this time, a total of 12 million Euros was spent on new innovative strategies for a more environmentally friendly and more efficient urban traffic concept. Of this sum, 4.2 million Euros were EU-funded. The result: The project 'Trendsetter' actually set new trends in all areas of traffic.

Impulses in Public Transportation

The highest investments were made in public transport. The introduction in 2003 of the night buses would not have been possible without 'Trendsetter'. Currently seven lines run successfully through the night in Graz and meanwhile transport up to 100,000 passengers per year. In order to avoid tiresome waiting at bus stops, a new electronic information system has been installed which informs the passengers of the schedule and tells them in how many minutes the next tram will arrive. In addition, adaptations at bus and tram stops were carried out to make them wheelchair-accessible, in other words, barrier-

free transport at its best. Another innovative improvement for passengers is an electronic system which coordinates the positions of buses and trams through a control center. It helps to reduce the chances of passengers just missing their connecting bus or tram to a minimum.

Since 2004, also thanks to the 'Trendsetter' program, information on schedules and all questions concerning public mobility can be obtained at the mobility center in Jakoministrasse. Those who have no time to go there can make use of the 'Bus-Train-Tram Information' (BusBahnBim), the online electronic schedule information service of the Transport Association. The 'Bus-Train-Tram Information' provides all tram schedules in Graz, schedules of all regional bus lines in Styria, and also of the Austrian and international railway services. In addition, the 'Door-to-Door Information' navigation service shows the best possible route from point A to destination B within the city limits of Graz. This can be found at www.busbahnbim.at

It is no longer necessary to know the name of a respective bus or tram stop; one can enter a street name or other points of orientation such as hotel names, churches, tourist sites or event locations. At the end of 2005, the electronic 'Bus-Train-Tram Information' calculated about 15,000 connections per day.

More Space for People

Pedestrians have also profited from 'Trendsetter'. The reconstruction of the upper section of Neutorgasse, which resulted out of a citizen's participation process, was also implemented in connection with this EU project. The street is now calmer, with less traffic, an 'entrance-gate' was constructed and it now ends in an enlarged square for people's recreation.

Even more space for people can be found on Karmeliterplatz, which, in

May 2005, became the latest designated pedestrian zone in Graz. The newly designed pedestrian zone offers a water fountain where children can play, benches for relaxation and some trees. The close-by Freiheitsplatz (Liberty Square) today lives up to its name as during its re-design, parking spaces had to give way to people. Ten Maple trees, benches and a water fountain create a tranquil and contemplative atmosphere on Freiheitsplatz.

More Comfort for Cyclists

Cycling has long been a tradition in Graz and is extremely popular not only because of its health-promoting aspects, but also because of the fact that cycling is environmentally friendly. The project 'Trendsetter' has invested in further innovations in Graz for this means of 'Gentle Mobility'. The 'Digital City Map for Cyclists' provides information on the best cycling route from A to B where the least traffic is to be expected. Immediately after its opening, the 'Elise-Steininger-Steg', the underpass below Kepler Bridge, could be found on the digital city map for cyclists. (The new underpass is the long-awaited solution to close the

gap in the bicycle path along the river Mur (Murradweg), as well as being a commitment to environmentally friendly politics.)

'Trendsetter' also explored mobility behavior in general and promoted mobility projects in companies in Graz whose objective it was to implement a change from car to bicycle use.

Information sessions, fitness campaigns, cycling events and lotteries helped to reduce by 15% the proportion of those among participating companies who drive to work.

And in order for small children to learn how to ride a bike and feel secure on it, in 2004, 'Trendsetter' made it possible for bicycle training to be offered in all primary schools. Ever since then, it has become part of the standard program offered to all young pupils.

A Healthier Environment

Thanks to 'Trendsetter', apart from the city buses, the taxis in Graz now run mainly on biodiesel. The fuel which is derived from old cooking oil is, because no fossil resources are used, almost completely environmentally neutral, as far as exhaust emissions are concerned. Furthermore, Graz introduced the system of 'Ecological Parking': The 'Ecological Token'



More traffic safety because of the 30 km/h limit



Less CO2: Good for old and young



Project Ecodrive (Ökodrive): buses of Graz Transport Services and taxis in Graz are fuelled with biodiesel made from old cooking oil and are, therefore, CO2-neutral and more environmentally friendly

allows environmentally friendly vehicles which have low levels of CO2 emissions to pay 30% less for parking in the Blue Zone. For more safety on the roads and still in the context of 'Trendsetter', the city installed speed-measuring devices which inform car drivers in the 30 km/h zone of their actual speed.

The introduction of the speed-measuring devices alone instigated a reduction in average speed level of 5km/hour, the highest speeds were even reduced by 20% - awareness raising in a 'gentle way'.

„Green Bus Fleets“

Due to the successful participation in the first EU-projects on the topic 'traffic', the city continues to take part in traffic-related EU programs. The follow-up to 'Civitas Trendsetter' is called 'SUGRE - Sustainable Green Fleets'. The project aims at making urban public transport environmentally friendly. As during Trendsetter, the project Ökodrive (Ecodrive) will be continued in cooperation with Graz AG (Grazer Stadtwerke - Public Utility Services) and Graz Transport Services (GVB) which belongs to it. Ökodrive stands



'Green' bus fleets thanks to EU-projects

for vehicles with low emission levels or even zero emissions, including the infrastructure necessary for their operation. Through its participation in SUGRE, the city has strengthened its position as a know-how provider in gentle and environmentally friendly mobility. In this case, 21 European cities benefit from the expertise of the City of Graz.

October 2005 was the start of the EU project PIMMS. PIMMS stands for 'Partner Initiatives for the Development of Mobility Management'. The main issue was to find out how mobility management can be implemented in a stronger and more effective way in regional transportation and environmentally friendly policies. Mobility management is understood as a demand-oriented approach with the objective of facilitating environmentally friendly mobility.

Graz, Bromley (UK), Stockholm (Sweden), Serres (Greece), Terrassa (Spain), Treviso (Italy), Almada (Portugal) and Frankfurt (Germany) were the participants in the PIMMS project. In the framework of the project, these cities had until May 2007 to carry out awareness raising activities for choosing a means of transport, to offer mobility education in schools and to promote regional networking in mobility management.



AAwareness raising for more cyclists in Graz proves successful: A full parking place in front of Graz Central Railway Station.

The project turned out to be profitable for all partners involved. Every Euro spent on measures towards 'Gentle Mobility' such as promoting public transport or bicycle traffic yields a profit of 10 Euros by reducing the burden of traffic on the environment!



More Cyclists and Pedestrians

In February 2006, the EU- Commission project ASTUTE started. It has an ambitious goal: to raise the proportion of cyclists and pedestrians in traffic by 10% at the same time as reducing CO2 emissions by an equal 10%. Besides Graz, Budapest (Hungary), Dublin (Ireland), Granada (Spain), London (UK) and Syracuse (Italy) also participated in ASTUTE.

A survey conducted by the British government served as the basis for

the project. The survey concluded that through improvements in mobility management, urban traffic could be reduced by up to 21% during peak periods. In addition, it was found that walking and cycling are the healthiest and most sustainable means of movement (in the sense of less CO2 emissions). The ASTUTE project lasted until January 2009. In the participating cities, the general acceptance towards walking and cycling increased and the number of pedestrians and cyclists rose in comparison to that at the start of the project. In addition, the burden of CO2 emissions decreased.



In addition, the support of companies, which clearly benefit from tailor-made mobility concepts, was an expected result.

Less Particulate Matter

Not only in the cities of Klagenfurt, Graz and Bolzano are the limits for particulate matter (PM10) exceeded in the winter period above the 35

days allowed by the EU. Research has found out that traffic is responsible for at least two thirds of the pollution from particulate matter, from exhaust pipes, different types of abrasion and resuspension. A further cause is domestic fuel, while the proportion of industry is negligible. The EU-LIFE project KAPA GS (the Klagenfurt Anti-PM10 action program carried out in cooperation with Graz and South Tyrol) is all about setting various measures based on the polluter-pays principle. Whereas Bolzano focused on bringing relief through traffic bans during peaks of particulate dust, Graz aimed at reducing private motorized transport. The Graz approach did not place emphasis on traffic bans, but rather on making public transport more attractive, by optimizing street-cleaning as well as improving winter road clearance. Domestic fuel is to be replaced by sustainable methods of heating such as subsidized connections to district heating. An integrated air-quality measurement network and a mathematical model in real-time operation support the efforts of the participating cities against the fine dust particles.

Prize-Worthy

The commitment is now paying off. Graz was awarded 'CIVITAS City of the year 2008' – for its persistent, exemplary efforts in searching for innovative solutions for cleaner city traffic.

EU-Programs in Graz

EU traffic programs have always been welcome in Graz.

From 2002 to 2006, the Mobility Center, a modern, schedule information service, and barrier-free bus stops were established within the framework of the CIVITAS 'Trendsetter' project. Furthermore, 100% of the bus fleet of the Graz public transportation company GVB changed to using biodiesel as fuel. In October 2005, PIMMS started, which focused on a change of views in the mobility behavior.

The ASTUTE project targeted a reduction of the CO2 emissions in Graz through an increase in the proportion of cyclists and pedestrians in the traffic situation.



The local-traffic hub Don Bosco makes connecting to bus, tramway and railway services attractive – every car less helps to reduce fine dust.

Data of Graz and it's Traffic

Area	127,6 km ²	
Inhabitants**	about 310.000	
• thereof Principal Residents*	257.898	
• thereof Women	133.899	
• thereof Men	123.999	
Households	105.826	
Employees	183.393	
Companies	10.692	
Individual Transport*		
Commuters	about 136.000 with more than 100.000 Pkw	
Vehicles	146.923	
• thereof Cars	117.206	
Persons per Car	1,22	
Cars/1.000 Inhabitants	473	
Road Network	1.100 km	
• thereof Streets with Right of Way	194 km	
Traffic Lights	268	
Computer Controlled Traffic Lights	168	
Parking Sites within Limited Parking Area	21.800	
Parking Sites in Underground Garages	10.500	
Net of Bicycle Routes	> 110 km	
Pedestrian Areas	53.000 m ²	
Parking Sites within the „Blue Zone“	Blue Zone: 14.300	
Parking Sites within the „Green Zone“	Green Zone: 7.500	
Public Transportation*		
Net of Tramway Routes	49 km	
Net of Bus Routes	343 km	
Number of Tramway Lines	8	
Number of Bus Lines	37	
Kilometers per Year (Public Transportation)	11,4 Millionen	
Transported Persons per Year	98,2 Millionen	
• thereof with Tramway	52,3 Millionen	
Amount of Fare Dodgers	4,3 %	
Modal Split*		
Car Drivers	35,7 %	
Car Passengers	9,5 %	
Public Transportation	19,9 %	
Cyclists	16,1 %	
Pedestrians	18,8 %	
Transport Safety*	2008	2009
Accidents with Persons Injured	2.107	1.996
Persons Hurt in Road Traffic	2.592	2.405
Persons Killed in Road Traffic	12	4
Accidents with Pedestrians Involved	280	224
Accidents with Cyclists Involved	442	434



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