BETTER MOBILITY WITH FEWER CARS: A NEW TRANSPORT POLICY FOR EUROPE

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Transport policy:resistance against change

Despite the many environmental problems associated with the proliferation of vehicular traffic, the western "automobile nations" remain fixated on car-centred traffic development. The automobile industry, with the support of transport and industrial policymakers, is planning another auto boom in Eastern Europe and the Third World. New car factories, built by highly-praised joint venture projects, are creating the basis for car-dependent transport systems and represent the start of a vicious spiral involving a rapid explosion of car production, which leads to massive global, national, regional and local environmental problems. The traditional scale of settlements will be destroyed and immoblity by progressive traffic jams will be the result. A revision of the western traffic model and a complete reorientation of industrial capital and growth interests towards new, meaningful, efficient and sustainable tasks in traffic management are required.

Pedestrians and bicycles, the traditionally dominant modes of transport, are the most obvious victims of this misdevelopment. ‘Bus and rail systems suffer from a dramatic reduction of their service in terms of quantity and quality. A fixation with automobiles destroys urbanity and paves the way for purely auto-fixated megastructures. "Drive-ins" determine development and investments. New low density housing and commercial and industrial districts group themselves around giant parking lots and superhighways far from urban centres. The suburban single-family dwelling, with two to three cars per unit, is growing ever larger. This trend is accepted, because of the illusion of convenience and personal freedom that it promotes, and has become the model for global urban and mobility development. The frustrating experiences of American and European cities, which have suffered for decades under chaotic automobile traffic and its unchecked growth, will soon be experienced by all other countries embarking on uncontrolled mass motorization.

However, in spite of these problems the creed of all western traffic ministers and lord mayors can be defined as "a future without automobiles is unthinkable, the car should not be condemned, the people, and the economy in particular are dependent upon it".

Those responsible continue to travel undeterred in their official cars, and regularly decide to build additional roads and new car parks. They complain profusely that public transport is much too expensive and very difficult for the national and local governments to fund. Cities and regions with few cars are in effect ‘suspicious’ to them, and appear underdeveloped. Hence all efforts to reduce road traffic are blocked. Year after year the growing motorization figures are viewed as an automatic order for politicians and planners to continue their auto-orientated behaviour. In the end more cars need more space to drive and park. A way out of the constantly increasing motorization and asphalt production is simply unimaginable. All defence rituals for automobile traffic culminate with the declaration: "Without the car nothing will work, there are no alternatives". This attitude completely contradicts the modern-day requirement, even obsession, that progress and willingness for innovation are essential bases for successful economic and social development. The lesson everywhere is “be inventive, don't lean on the old recipes”. Fundamental changes are only taboo in transport policy and planning; yet taboos are the enemy of innovation. Innovation needs the creative search for alternatives and the courage to blaze new trails; but the transport trail is blocked with excuses for the *status quo*. In this respect, transport policy differs from other problematic areas of dispute in western industrial and environmental policy in which fundamental innovations are seriously discussed and implemented step by step. For example, in energy policy, energy saving and reduced consumption, e.g. through thermal protection, new heating technologies and alternative, regenerative energy sources, have gradually become politically relevant; in waste policy, waste avoidance and waste recycling are becoming attainable ideals, and in terms of hazardous chemical substances legislation and pollution controls have resulted in their removal from the production and economic cycles. However, for automobile traffic, similar economising therapies are rejected; motorization remains sacrosanct.

Increasing automobile traffic is said to be inseparable from high levels of civilisation and economic status, and there are few who would wish to deny this standard of living. In this context the automobile is considered as an irrefutable symbol of wealth, comfort and development and so to do without the car is seen as synonymous with poverty. The economic significance of the automobile is applauded; it is said that "the economy moves with cars", "the cities would die without cars", "only cars can give us all

mobility". Hence the car is seen as irreplaceable. No consideration is made of the economic stimuli that would result if all public and private funds for mobility and transport were allocated to alternatives to the automobile.

Along with this argument it is often pointed out that the people do not want their travelling lives to operate any other way. To buy the cars and use the roads is understood as a mass plebiscite (authorisation) for automobile policy. Moreover, politicians tend to the view that, if they were the solution to transport problems, the ‘buses and railways would have been promoted adequately in the past and have become acceptable as the most appropriate means of transport. Politicians also believe that people do not want to change their habits, and then, for emphasis, it is added that more public transport cannot be funded. For these reasons, public transport is not really seen or promoted as an alternative to the automobile. Other reasons for car reliance include prospects that the share of public transport would remain too small, its financial deficits would remain too large, its network could not be extended, and its appeal would remain low when compared to the car. Moreover, the lack of flexibility would mean that ‘buses and railways could not provide enough capacity for increased passenger numbers.

Since the car has defined a new level of comfort for accessibility, people expect easy access to centres, housing areas and places of work without long distances that can only be covered by walking. In contrast, public transportation systems are faced with economic forces that tend to reduce their network density and number of stops to save costs. Public transportation planners tend to overestimate the importance of high speed and to neglect the importance of short walking distances to and from stops. They do not think in terms of an integrated public transport and walking system, though there are many plausible reasons for considering such integrated possibilities. Some small towns in Switzerland, Germany and Austria have successfully and substantially increased the number of ‘bus stops (by a factor of between 6 and 10) and this has lead to massive increases of passengers (for example in Lemgo, Germany-Westfalia, with about 20.000 inhabitants in the bus-service area, the yearly number of paying passengers increased from 80.000 to 2.300.000. In the case of Dornbirn, Austria-Vorarlberg, with 40.000 inhabitants in the bus-service area, the number increased from 130.000 to 4.900.000

and in the case of the very rural mountain area of the Bregenzer Wald, Austria-Vorarlberg, with an area of 20 x 20 km and only 30.000 inhabitants, the number increased from 30.000 to 3.000.000. Similar changes occurred 10 years earlier in several small towns in Switzerland. For details see Luers, A. (1994): Stadtbussysteme in kleinen Städten. In: Handbuch der kommunalen Verkehrsplanung, 5. Ergänzungslieferung, 3/1994).

Self-prescribed lack of alternatives and "useless not-in-my-backyard strategies" immunise traffic policy against basic innovation. Instead, attempts are still made to "tunnel under" the problems, to shift them or to alleviate them with organisational tricks, for example electronic street traffic management or the 3 litre car. If traffic jams are the problem, then the classic solution is not fewer cars, but more, newer and better roads and car parks. This constantly adds fuel to the fire, an alarming pun! Of course, it cannot be denied that too much automobile traffic can be a disturbing factor. In city centres, for instance, there may be some freedom from cars in the ghettos of pedestrian zones, though, allegedly, that is only possible with a new bypass and a few new carparks. Shifting the problem rather than solving it is the motto. In industry such an approach is referred to as the "high chimney policy"; in traffic policy, relief roads and bypasses and carparks take on the role of high chimneys.

New transport policy: a radical scenario

More recent studies, for example those by the Wuppertal Institute for Climate, Environment and Energy (Schallaboeck, K.O., Hesse,M. (1995): Konzept fuer eine neue Bahn, Wuppertal) have forecasted that today's automobile traffic could be halved in Germany by a reanimation strategy for rail and bus systems. This proposal would involve an increase of rail and bus services in passenger transport by a factor of four and an increase in freight rail transport by a factor of three. To achieve these goals, a general change in public investment and private mobility expenditure priorities is necessary. A continued policy of mass motorization clashes with the objective of a reduction of global, regional and local environmental problems and efficiency problems in transportation. For a "mobility without cars- strategy" the alternatives to the

automobile, the appeal and capacity of integrated environmentally-sound transport means must be greatly improved everywhere. Thus the ownership and use of cars is made unnecessary from the outset, and the massive flow of lorries on Europe's expanding street networks is made unnecessary by an optimised freight-rail system.

What this means in concrete terms can be explained using the example of public transport in its most developed quantities and qualities in Switzerland. The more extensive carfree city centres and quarters become, the more important it is to make them as accessible for public transport as is possible. Public traffic can then offer massive advantages, compared with the car in reaching these areas. With public transport individuals must be able to reach the centre faster, cheaper and in a more attractive way than by car. That requires considerable rethinking in all aspects of public transport planning. Quite often public transport is regarded as a disruption and as difficult to integrate into the cityscape. For these reasons it seemed preferable to concentrate it on main roads, which are located in the periphery of the areas that need to be served. This has also become necessary as the vehicles used for public transport have increased in size and speed, often for misguided reasons of rationalisation.

Such policies arose because public transport planners dealing with commuter traffic flows in the region failed to take account of the fact that 80% of local mobility is only for short distances, and that 50 % of local car usage is due to short distance trips. Consequently, public transport policy embraced schemes which focused "high-speed-railway-like" or "high-speed-bus-like", often behind crash barriers. This was not at all friendly for pedestrians who as passengers would prefer short walking distances to the bus or tram stops, and who would prefer easy access to the stop without stair climbing. As a result of that misguided development the direct contact to the customers, which is important for success on the market, was increasingly reduced. The privilege, to provide an attractive "door-to-door-traffic" became the monopoly of car-traffic, with the requirement to drive and park everywhere.

The concept of car-free-towns must correct this development in two ways: the basic logic of park and drive everywhere by car must be cancelled for health and building

preservation and protection (e.g. emissions, dangers, disruptive effects). The complementary logic which says that public transport can only serve a few corridors must be rejected as well. Free access to all areas by ‘bus, tram and train is the basic requirement for car-free urban development. A dense network of public transport lines with short distances to all stops, well designed stops with high quality access for pedestrians and cyclists and a reliable and frequent schedule are necessary. Underground public transport seems to be detrimental and unnecessary for car-free towns. Faster and more greatly concentrated corridor-public transport systems are only needed on medium and large distances but they have to be linked at many different junctions.

Feeder buses and trams have to slow down to tolerable speeds which are safe for pedestrians and good for the environment. A maximum speed of 20 km/h for pedestrian streets and 30 km/h for traffic calmed streets would be appropriate. Such speeds are already widely accepted by passengers, pedestrians and cyclists and make it possible for public transport vehicles to stop at many stops frequently. Some investigations (Fiedler, J (1981): Erschliessung von Fussgaengerzonen unter Berücksichtigung des OEPNV. = Forschung Strassenbau und Strassenverkehrstechnik, H. 332) have ascertained that ‘bus and tram services in car-free areas do not cause any problems concerning security and liveability; but they bring many advantages, including safety and enhanced aesthetic values.

Well known examples of the peaceful coexistence of tram and dense pedestrian traffic are Karlsruhe, Freiburg, Hannover, Kassel, Bremen in Germany, Zurich, Basel and Bern in Switzerland, Strassbourg, Grenoble, Nantes in France and Graz in Austria, well known examples of bus lines and dense pedestrian traffic are Regensburg, Göttingen, Osnabrück in Germany. In Lindau and Lemgo (Germany) and Bregenz, Dornbirn and Feldkirch (Austria) small buses even go through the narrow alleyways of middle age town centres safely. Given these examples it is incomprehensible why some cities allocate so much effort and funding to banish buses and trams from the inner part of the cities. A solely tangential or peripheral access for bus or tram is not very attractive and

costs are considerable, often being out of proportion to transport costs overall. The pleasure of "window Shopping" out of a bus or tram should not be underestimated.

Public transport (for passengers and goods) has to be developed as an alternative for everyone, everywhere. It is not enough to offer attractive public transport routes for commuters on the main routes of conurbation areas or to offer attractive rail corridors only for the busiest connections. Mobility by bus and rail must be just as attractive for shoppers, recreation-seekers, holiday makers on the one hand, producers, and retailers etc. on the other. In short such systems would offer a realistic alternative to automobiles and lorries. Why should it be impossible to carry a surfboard or three suitcases in public transport? Why should it be impossible to serve a shopping centre by rail? Such access needs only to be organized properly. Small towns and rural areas also need appealing public transport. Mobility should not be reserved for automobiles only anywhere. In order to make 150 million cars superfluous in Europe, the current public transport standard must be raised considerably. Regions and journey times, allegedly unattainable without cars, must be made attainable. The availability must be adapted to the various traffic tasks of conurbation areas and less dense populated areas, at peak hours and at night, on main throughways and byways, in the size of vehicles, the form of service operated, and the density of services. This becomes economical as soon as regular use of public transport becomes the norm; and it becomes fundable as soon as the rival spending for the automobile system by public and private budgets and industry declines.

Consequently a redistribution of private traffic spending and public traffic funding is needed. There would be enough money in private purses for increased use of ‘buses and railways if the citizens stopped investing most of their transport money in cars and their operation. Then it would be possible for individuals to afford a universal mobility ticket for ‘bus, rail, taxi etc. and still have money left for the other good things in life. National and local governments would have the means to make ecological traffic systems possible if they would stop focussing public spending and taxation on the automobile. Indisputably, the explosion in capacity and appeal of public transport would cost billions but, overall, it would cost much less than continuing to alter cities

and landscapes to accommodate increasing numbers of automobiles. The tax system and traffic funding policies would also require comprehensive reforms. Perhaps these reforms would include the possibility for private individuals and institutional investors to invest large sums of money into public transport. Why should people who spend 10.000, 15.000 or 25.000 € every couple of years for new cars not use this money in the future to buy shares in 'buses and trains? Surely public transport could employ at least part of the purchasing power that had been reserved for automobiles and allow investors to earn incomes and/or dividends? After European deregulation of public services in some countries as UK, France and Scandinavia privatised public utilities such as water, electricity and gas companies are considered a 'safe haven' and pay good dividends; they start to become engaged in the privatised public transport market as well like Vivendi, General Water, Interbus, Connex and their professional growth strategies might bring another impetus to a renaissance of public transport.

The ecological traffic revolution would give the economy new tasks and new opportunities. Increasing rationalisation in the automobile industry has produced a massive loss of jobs. The construction of modern city- and environmentally-compatible 'buses, trams, regional trains, goods train vehicles and the necessary routes, stops, stations, goods transfer centres, the construction of thousands of bike stations, bike and ride stations, bicycle-friendly streets and intersections and pedestrian-friendly roads would facilitate the conversion of the traffic and construction industries. It would, of course, require orders and commissions. Therefore, fiscal and tax reforms would have to make it financially possible for regional administrative bodies to invest in integrated environmentally-sound transport systems. Suitable financial incentives would be necessary to reward regional administrative bodies and individual citizens for redirecting their traffic funds to integrated environmentally-sound transport means. Traffic services must put an end to the phase of rigid rationalisation at the expense of quality. Traffic services and traffic logistics must become growth sectors with substantial job-market relevance with information, disposition, communication, service, gastronomy and logistics. It is a pity that there are only few sound traffic-revolution scenarios covering all of the ecological, economical and traffic aspects of such a strategy (see for example Loose,W. et al. (1998): Hauptgewinn Zukunft. Neue Arbeitsplätze durch umweltverträglichen Verkehr. Ed. Öko-Institut. Freiburg).

A systematic approach to car-free life

A radical change of the typical transport and mobility problems, safety problems and environmental problems in highly motorised countries will only be possible after a systematic implementation of the various elements and strategies referred to above. Inner-city pedestrian zones should be extended, they should no longer be combined with obstacles to pedestrianisation e.g. parking facilities, ring roads and busy intersections. They should provide good access for tram, 'bus and train. They should integrate cycles and some of the 'bus and tram lines to allow easy travel into to the heart of the city. The network of promenades for pedestrians and cyclists should be continuously expanded and connected with the pedestrian zones. Pedestrian zones should be offered not only in the city centre but also in other shopping and commercial districts and in residential areas. Traffic calming should be the basic principle for organisation of mobility: with slow speed and the coexistence of walking and driving. The maximum speed should be defined by legislation in all European countries to 30 km/h in urban areas. Parking should be restricted everywhere to a tolerable amount, mainly for the delivery of goods and car sharing cars and taxis. Public transport needs to be redesigned systematically. It has to be more flexible and more customer orientated than it is at present and have dense networks of lines with the number of stops being increased by a factor of about ten. Thus an easy and comfortable ride by 'bus, tram or train is offered from everywhere to anywhere at any time.

Urban planning and architecture will revert to old European traditions of compact and mixed land-use development. Public space will be rediscovered as the most important space in town, with high design quality, many trees and comfortable space for standing and walking. Car-free life provides the best conditions for pedestrian and cyclists and urban-centre dwellers who may not feel so compelled to move out of town to the suburban green belt. The paradox, i.e. the American way of life (*circulus vitiosus)* that people escaping from the congestion, noise and pollution of the massive urban car traffic, relocate themselves to suburbia where they become completely dependent on their cars (one for father, one for mother and one or two for the elder children), can be

decreased if not avoided. Urban life becomes attractive again, even for families with small children.

Car-free life is no utopia. The most famous example of Venice is considered as very attractive. More and more planners in Germany, Switzerland, France and Austria propose to organise mobility similar to that of Venice, though without the reliance on water. They start to make experiments with specific "car free" festivals at local and regional levels on selected Sundays. In specific tourist regions they car traffic is barred, as in the 16 Swiss examples of car-free tourist places (the most famous example is Zermatt) or the 36 German examples of car-free health resorts and tourist places (well known south German examples are Oberstorf or Bad Woerishofen or Bad Reichenhall or the car free Islands Langeoog, Spiekeroog, Wangerooge, Baltrum and Juist in North Germany (see for example Boss, A. *et al* (1997): Nachhaltiges Verkehrskonzept als Chance zur Realisierung eines Qualitätstourismusmit Zukunft – am Beispiel ausgewählter Nordseeinseln. Trier or Reutter, U. et al. (1997) : Autofreies Leben – Autofreie Mobilität. In: Handbuch der kommunalen Verkehrsplanung. 17. Ergänzungslieferung 5/97).

Walking should be restated as the most important means of local mobility. The role of gondolas and boats in Venice will be substituted elsewhere by either cycling, car sharing, taxi or public transport. Four million public car-sharing cars would be enough to provide the same mobility than is today provided by 45 million private cars in Germany, if the alternative modes were to be promoted in an efficient way.

The most frequent argument against car-free life is a massive loss of mobility and flexibility. Pedestrians would walk only short distances. Cyclists would pedal only short distances. And both modes would not be suitable for carrying heavy items. Moreover, a good public transport system could not be financed and would make governments bankrupt. The only truth in this argument is that car-free life in Europe with its complicated mobility structures needs additional means of transport with high capacity and flexibility. These needs can be met by a perfect system of public transport by taxis, collective taxis, 'buses, trams and trains, by a perfect semi-public transport

system with many local car sharing and car-hire systems and by perfect and safe walking and cycling systems. Freight transport should be organised in a similar way, with a flexible system of lorries, goods ‘buses, goods trams and goods trains. A decentralised system of freight transport nodes with modern equipment for communication between all elements of the freight-transport system will provide a high flexibility and market orientation. The private car, after such innovation would lose its classical role as a means of short-distance transport, i.e. for 40-50 per cent of trips of less than 5 km, or even 30 per cent for distances of less than 3 km. For these distances cars are mainly used as a substitute for walking and cycling. Walking and cycling are massively underestimated in the scenarios of conventional planners, since they are not at all interested in short distance mobility. They do not include short distance trips in their analyses. After 40 years of steady decrease it is indeed difficult to envisage a renaissance of walking and cycling, but many case studies show that massive changes in this context are possible (the best known examples in Europe are Groningen in the Netherlands and Münster in Germany, both having a modal share of more than 40% for cycling. And the North-German Wismar is a good example for a walking shar of over 40%. For details see Apel, D. (1984): Umverteilung des staetischen Personenverkehrs. Stadtverkehrsplanung, Teil 3. Ed. Difu, Berlin).

Car-free life is certainly no utopia. In Europe most regions and towns until the 1950s had very little car traffic. 80 per cent of the existing motorised vehicles at that time were trucks for freight transport and ‘buses for passenger transport. The private car was an exception at that time. Most countries in the third world even today have very little car traffic. All over the world only about 10 per cent of the population have access to private car use. Thus the following question must be raised ‘Why should the very inefficient mobility style of western countries, which is a copy of the American way of life, be the model for a global society?’ The aspiration of two or three generations of politicians that massive car promotion would lead to modern flexible mobility systems with a high degree of comfort and without any problems has not been realised. Congestion governs in those parts of the world that have introduced mass motorization. e.g. Los Angeles, Bangkok, Sao Paulo or Mexico City are the worst cases of misdevelopment. But congestion has become a regular plague now everywhere in highly motorized areas and has even become a daily experience in developing countries

with low motorization. So mobility will suffer from global congestion. Today much better means of mobility have been developed. Modern public transport can work much more efficiently and flexibly. Modern cycling and walking can produce high cost and space efficiency and great pleasure for cyclists and pedestrians. The obvious health benefits should be the reason for lower health insurance rates for cyclists and pedestrians, who practice a high level of nonmotorized mobility, as some insurance companies in the Muenster-region already recognize. Walking and cycling can again be the basic modes of urban life if planners, architects and street design take them seriously as the most important means of transport. Only politicians and managers with little vision will put a taboo on car-free life.

Present legislation in most European countries is fixed on maximum car comfort and maximum freedom of driving. Architects and planners are forced by building and planning laws to provide good car access and maximum parking facilities in all housing, shopping, leisure, tourist and business projects. Free access for private cars is considered as a basic right. Historically, this legislation dates back to a time when mayors, citizens and architects did not want to waste much money for the infrastructure to support the car culture, notably in the 1920s and 1930s. At the same time fuel tax and building tax were established to bring enough money into the public domain to engage enthusiastically and steadily in the construction and expansion of car-oriented streets and parking facilities. No comparable regulations have been made in planning and building legislation and taxation in respect of walking, cycling and public transport. Any policy aimed at a real decrease in car traffic will have to change such car-orientated legislation in the near future. Increased vision is needed for architecture and the design of public space. If the number of cars is to be reduced to half of the present figure, and eventually to ten per cent, there would be increased space for trees, green verges and walks, broad sidewalks, lovely squares etc. However, architects and urban designers will have to learn how to make use of these new possibilities. Streets can be rediscovered as a place for public life, art, communication, sitting or standing outside. New urban life, as it is known from car-free places like Venice, will be present everywhere.

A change is needed and it is possible. The innovators will not be active at national level as it is much more likely that local pioneers will promote the new mobility initially. The new traffic policy will involve a decisive, systematic turnabout from conventional and current traffic development. National policymakers and administrations have not offered any impetus for this, not even after two world climate conferences (Rio Conference 1992, Johannesburg summit 2002). They refuse to see the facts; even environment ministers regularly gloss over the shortcomings of automobile traffic and shy away from de-motorization strategies. This makes it even more important that open-minded, innovative planners in cities and regions, environmental organisations, and creative experts should pioneer thematic alliances. The environmental associations could develop a more courageous and radical approach and represent the concept of integrated environmentally-sound transport means with more consistency than, for example, presently achieved by public transport authorities and railways. They continue to show far too much consideration for automobile traffic.

A more efficient mobility, a better environment, and more lively towns will only be possible with a much reduced number of cars. If traffic policy is to be more than the management of shortcomings and the continuation of current trends, it must make other traffic futures imaginable, develop visions, dissolve blocks in thinking and action, and initiate ambitions for improved traffic development. Lazy excuses and blind continuation of the present trends rob it of all conceptional conclusiveness and credibility. They lead many politicians, engineers, planners, and jurists to the common excuse “one cannot change reality”, present structures and principles have to be accepted. The same basic problems in traffic occur throughout Europe. Frustrating experiences with narrow political, legal, financial, and institutional limits reinforce the assumption that the present reality cannot be changed. They block creative thinking. They make it difficult to envisage open future scenarios of alternatives. That is why it is necessary to encourage visionary ideas which conform to sustainability aims and which are open to consensus. A communications offensive must push aside all of the ballast of ideological hardening and prejudices. The panic or fear of a car-less future must be countered with a sound model of a modern city with environment-compatible mobility without automobiles, but with low traffic volumes and high living quality. Once this is achieved, the willingness to examine fundamental changes to existing

urban systems will increase as will possibilities for new regulations enforced by law, reapportioned financial provision, and, above all, the institutional basis for a new traffic age (see: von Winning, H.H., Schallaboeck, K.O. (2002): Neuorientierung von Verkehrsforschung und Verkehrspolitik. Arbeitspapier aus dem SFB 522 Umwelt und Region, Nr.8, Trier).

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