Wishful Thinking in Transport Policy

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- **This essay advocates a realistic vision on how to achieve sustainable mobility. The focus lies on more than halving CO_2 from European transport, while these emissions are now still growing.**
- **Wishful thinking needs to be ended about both reducing mobility growth and a modal shift away from the road. Such changes can be achieved only by policies that restrict road transport – limited road capacity, transport pricing and lower speed limits – and hardly by stimulating alternatives for the road.**
- **Between two-thirds and three-quarters of the required reduction in CO_2 emissions from transport can be achieved by clean technology: very energy-efficient vehicles in combination with low-carbon energy. Most technologies are waiting on the shelves to get on the road, and new innovations will emerge. However, this will happen only if the knobs of already applied policy instruments are turned much tighter.**
- **The policy measures used to achieve low-carbon transport should not favour specific technologies – for example, electric vehicles or bio fuels – but need to be technology neutral. The incentives should be on reducing CO_2 emissions regardless of the specific technology.**
- **Between one-quarter and one-third of the required reduction in CO_2 emissions can be achieved by making transport policies more economic sound. Combating congestion is not the right compass for transport policy, and wishful thinking about this needs to be ended also. Instead, the economic focus should shift to improving accessibility, being the combination of nearness and speed.**

1. Public Transport and Urban Planning

In the 1970s, public concern arose about the degradation of our environment. Evidence strengthened that our health, buildings and forests were negatively affected by acid rain, noise, black soot, the destruction of the ozone layer and other forms of pollution. Also the conviction grew, that the increasing concentration of greenhouse gases (GHG) in the atmosphere will lead to dangerous changes in the global climate. It became urgent to reduce our ecological footprint. From the start it was evident that mobility was one of the main causes of the environmental problems. Industry, agriculture and energy use for buildings

are other major sources of pollution. Now, 40 years later, substantial progress has been made in reducing air, water and soil pollution. However, some persistent environmental problems are still not tackled. Climate change is one of these persistent challenges we face, and reducing CO_2 emissions from transport appears to be the hardest to achieve.

The core of the green answer to reduce the environmental impact of mobility was to reduce car and truck use, or at least reduce its strong growth. It was – and still is – advocated that drastic changes in our mobility patterns are unavoidable. Public money was spent on improved bus services, high-speed rail lines, light rail connections, passenger terminals, multi-modal freight hubs, dedicated freight rail lines, P + R facilities and so on. This was intended to counteract the rapid increase in market share of road transport, which accelerated from the 1960s. These policy measures were, of course, in the interest of railway companies, who used the environmental concerns as an argument to increase their subsidies. Green politics supported this vision, and it took a few decades before environmentalists began to oppose to some new railway lines, especially for high speeds.

In addition to support for alternative transport modes, better urban planning should shorten travel distances and reduce car dependency. Wrongly planned new towns were blamed for increased commuting distances, car traffic and the resulting congestion. Walking and cycling were seen as alternatives for the car.

It is evident that the above incompletely summarized approach to achieve sustainable mobility has not been successful. The market share of cars and trucks continued to grow, as is convincingly shown in the Figures 1 and 2.
And despite the use of more energy efficient cars, vans and trucks, the total CO_2 emissions from European transport increased by 30% in the period 1990-2005. Finally, statistics reveal that urban planning did not succeed in stopping the growth in travel distances. For decades, the average trip distance has grown by somewhere around 1% per year.[1] Each year we travel further to work, for leisure, shopping and visiting friends and relatives. And each year the production of our consumer goods requires more truck kilometres due to logistical changes. Do not blame the urban planners for this increase in trip distances, because people and firms decide themselves where they locate their activities, although within the boundaries drawn by planning authorities.

In retrospect, the policy papers from the 1970s and 1980s advocating the above summarized vision of sustainable mobility showed to be mainly wishful thinking.

1 Aviation is wrongly not included in most mobility statistics, and its inclusion would reveal a higher growth in average trip distance.

The business as usual projections, on the other hand, turned out to be rather accurate. One illustration of wishful thinking is the former aim of the European Union to keep the modal split in freight transport at its 1990 level. This can only be labelled as a political illusion, with the knowledge of the real world developments as shown in Figure 2. Nice to tell to voters, but entirely incredible from the outset.

So, the sketched vision of sustainable mobility needs a rethinking in the light of reality. The following parts of this essay develop a new vision on sustainable mobility, acknowledging – instead of neglecting – the main driving forces behind transport and mobility.

2. Speed

Some argue that the attempts to change the modal split and to reduce transport demand have not been fierce enough. And they have a point. However, I am convinced that 'more of the same' will not result in sustainable mobility, for this approach does not take account of speed as one of the fundamental driving forces behind mobility.[2]

The history of transport can be described as an ongoing decline in the 'friction of distance'. Faster transport is the most important key in this development, especially for passenger travel.[3] Until the industrial revolution, travel speeds were low and had not increased much for ages: walking around 5 km/h, horses and boats between 8 and 15 km/h. The associated mobility volumes stayed small. Then, within a century between 1830 and 1910, the main modern transport technologies were developed: steam railway, car, truck, diesel ships, electric train and airplane. These new technologies made higher transport speeds possible.

2 The dominant role of speed in the development of mobility is discussed at length in 'The attractiveness of car use' (Bleijenberg, 2012).

3 The 'friction of distance' comprises the time, costs and discomfort of covering a certain distance. For passengers, the travel time is dominant in the long run. For freight, the concept of 'generalized costs' is adequate, comprising direct costs of transport, transshipment, storage, risks and interest losses (*e.g.* owing to transport time). This essay does not discuss the drivers behind freight transport at length. However, the central point that reducing the 'friction of distance' is a major driver behind both transport growth and mode choice is valid for both passengers and freight. For freight, the removal of trade barriers is a second major cause of growth.

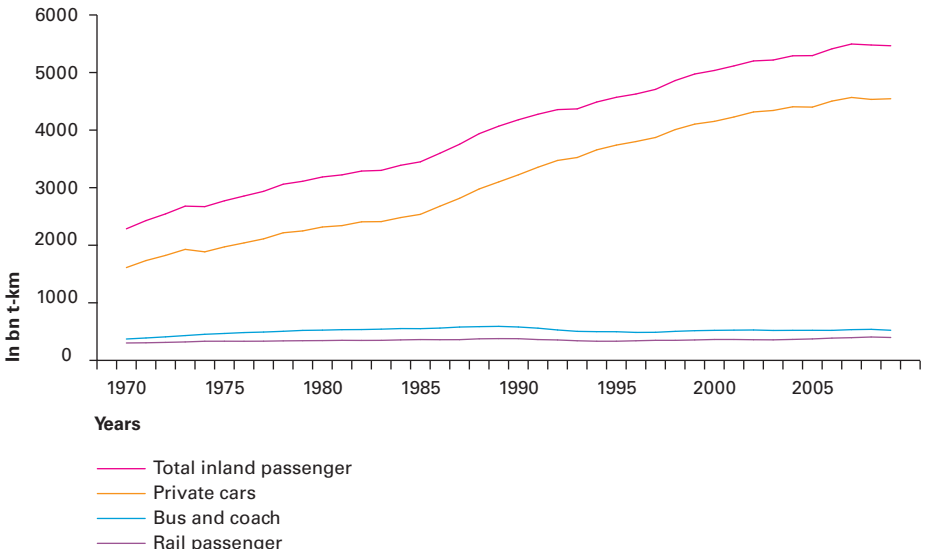

Figure 1. Historic developement of EU27 passenger transport, 1970 - 2009 (in billion t-km).
The car dominates 40 years of growth in passenger mobility (CEPS, forthcoming, based on ITF/OECD data).

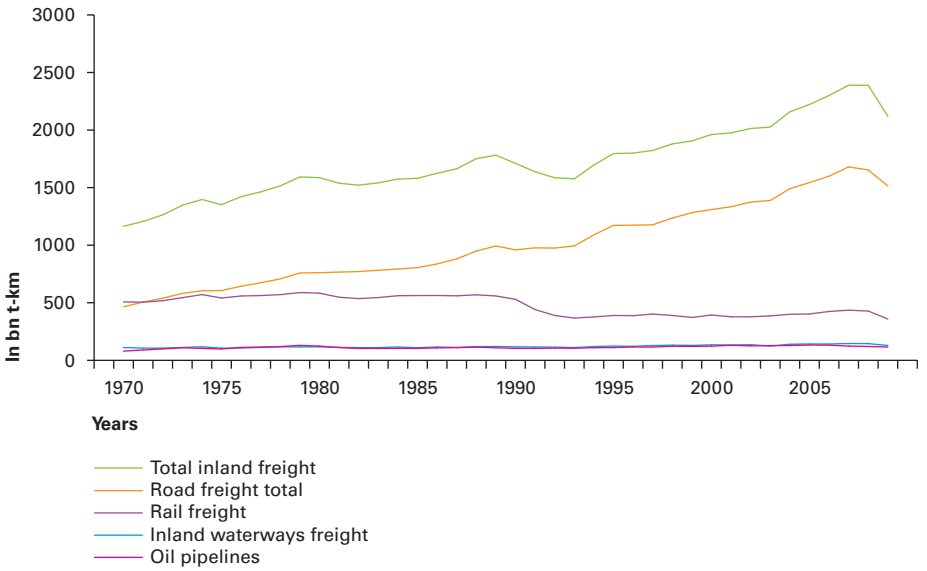

Figure 2. Historic development of EU27 freight transport, 1970 - 2009 (in billion t-km).
Trucks dominate 40 years of growth in freight transport (CEPS, forthcoming, based on ITF/OECD data).

Now, the average speed of both the car and the conventional train lies around 45 km/h, and aviation is even faster with an average door-to-door speed of roughly 250 km/h.[4] These higher speeds made it possible to cover greater distances in the same time frame and are at the root of the strong mobility growth in Europe since 1850.[5] Of course, it is not only the available technology, but also its affordability and the socio-cultural acceptance of the new transport modes, which made faster and further transport a reality.

Speed is not only the main driving force behind mobility growth, but has also a decisive impact on the transport mode used. Historic developments reveal a shift to ever faster transport modes. Until 1850, horse carriages were dominant, after that the railways became the dominant transport mode for many decades and from 1930 the car has the largest market share. Now aviation outstrips the car in its growth rate.
The door-to-door speed of public transport (PT) relative to that of the car determines to a large extent the market share of busses, metros and trains. If PT offers the same travel time as the car, roughly half of the people will choose PT. However, it is difficult and costly for PT to offer a fast door-to-door service. Data for the Netherlands show that for 88% of all car trips, PT takes more than twice the travel time of the car.[6] And for only 0.01% of the trips PT is faster. This explains why the aggregate share of PT is limited to around 10% in most countries. Of course, in large cities, where the speed of the car is low, the share of PT is much higher than the national average and can be as high as 50%. These large and dense cities offer the best opportunities for mass transit.

From the presented analysis of speed as a main driving force behind mobility growth and the resulting dominance of the car, the conclusion follows that the green vision on sustainable mobility can only be achieved if the average speed of road transport is reduced. Shorter travel distances, more walking, cycling and PT, can become reality if the attractiveness of the car is diminished. And increased generalized costs for road freight will curb current trends towards longer transport distances and more complex supply chains, with each ton being lifted more often. Policies aimed at stimulating alternatives for cars and trucks will generate additional mobility and will not cause a substantial environmental gain if road transport is not restricted.

4 For rail and air transport, the travel time to and from stations and airports is included (Verkeer en Waterstaat, 2002).
5 Empirical evidence shows that the average time spent travelling is rather constant at around 1.1 hour per day. For an overview, see Bleijenberg (2012). Starting from the thesis of constant travel time, mobility growth can only be the result of population growth and increased travel speed.
6 *Mobiliteitsbalans 2010* (KiM, 2010).

In theory, it is easy to reduce the attractiveness of road transport. This can be achieved through insufficient road capacity, setting and enforcing tight speed limits and by making fast modes more expensive. However, exactly these effective policy measures are opposite mainstream transport policy. Combating congestion is priority one in most Western European countries and expanding motorway networks is a high priority in Eastern Europe. Furthermore, making cars, trucks and aviation pay their full costs is perceived as political suicide, with only few exceptions.

So, the choice is to either accept current mobility trends or to have the political courage to take effective, but unpopular, measures. Politicians and interest groups have frequently tried to ignore this dilemma by creating illusions about changing mobility patterns without taking harsh measures. In many cases, the bill for wishful thinking went to the tax payer. However, illusions can be politically attractive, but they do not change the real world.

3. Policies for Clean Technology

Attempts to change mobility patterns did not bring sustainable mobility much closer. Have other policies been successful in reducing pollution from transport?

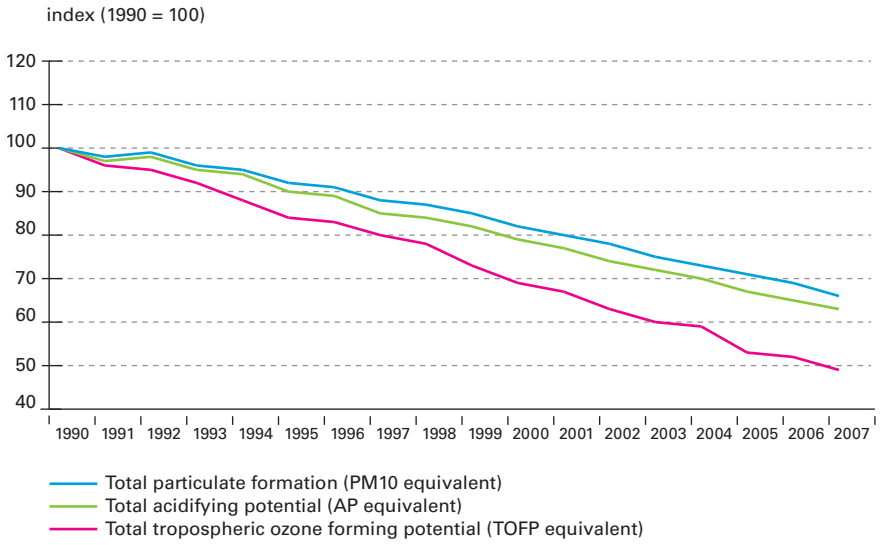

Figure 3. Strong reduction in air pollution from European transport, despite the growth in transport volume (European Commission, 2011).

A big success has been the introduction and subsequent tightening of environmental standards for vehicles, the so-called Euro standards. In the late 1980s, Europe introduced vehicle emission standards, despite fierce opposition from the car industry. In the 20 years since, the maximum acceptable pollution levels have been decreased by 95% for particulates and by 85% for the classical air pollutants. The positive effects of these European emission standards are convincingly shown in Figure 3.

The total emissions of particulates and nitrogen oxides from European road transport are strongly decreased since 1990, despite the growth in transport volume in the same period. Technological improvements of engines, fuels, vehicles and exhaust gas treatment made this environmental gain happen. Crucial for these improvements were the political agreements on the standards which forced the car and truck industries into these innovations.

This historic success in reducing air pollution shows the way to achieve a strong reduction in the GHG emissions from transport. Many studies conclude that energy efficient vehicles combined with low-carbon fuels have the potential to more than halve the CO_2 emissions per vehicle kilometre before 2050, mainly using existing technology.[7] New innovations will make further reductions possible.

However, these technical improvements will only be realized if strict policy measures are taken. Just like the Euro standards forced down air pollution from vehicles, a subsequent tightening of standards for energy efficiency and the CO_2 content of energy carriers will be successful in combating climate change. Additional to European policy, it is crucial that member states create fiscal incentives to stimulate the use of very efficient vehicles and low carbon energy. Copying best practices from other member states will do the job.[8] This brings the key to the required drastic reduction in GHG from transport in the hands of policy makers. Furthermore, the policy instruments to be used are well known and already applied in the European Union, several Member States and in other world regions.[9] So, the political challenge is to tighten the knobs, despite opposition from some involved industries.

7 Many studies support this conclusion. *E.g. Transport, energy and CO_2 – Moving towards sustainability* (IEA, 2009), *50 by 50 report – Global fuel economy initiative* (IEA et al., 2009), *EU Transport GHG: Routes to 2050?* (Skinner et al., 2010), *Support for the revision of Regulation (EC) – No 443/2009 on CO_2 emissions from cars* (Smokers et al., 2011). The variety in foreseen technological solutions will not be discussed in this essay.

8 Best practices of national policies are reviewed in *Member states in top gear – Opportunities for national policies to reduce GHG emissions in transport* (van Essen et al., 2012).

9 An extensive overview of national and international policy instruments to reduce CO_2 from transport is presented in the recent book *Cars and carbon – Automobiles and European climate policy in a global context* (Zachariadis, 2012).

Three policy instruments have proven to be effective and form together the core of the required policy package for low-carbon mobility:

- *Setting and tightening European standards* for the energy efficiency of vehicles and the carbon content of the fuels and electricity used. The combination of standards should address the well-to-wheel emissions of the vehicles, including the GHG emissions from refineries, power plants and the production of bio mass.
- *Fiscal and financial incentives* to stimulate the purchase of energy efficient cars and low-carbon fuels. National governments can differentiate the rates of existing taxes to stimulate low-carbon transport. Many governments already successfully use vehicle taxes, sales taxes, fuel taxes and company car taxation for this purpose.
- *Fuel taxes* also generate a strong incentive to buy fuel-efficient vehicles. A 10% increase in fuel price will result after some years in a 3-4% better efficiency of the vehicles.[10] Increasing fuel taxes is also needed for fiscal and economic reasons. Otherwise the promoted shift to very energy-efficient vehicles would reduce tax revenues and increase the underpayment of road users for the infrastructure costs.

So, already widely applied policy instruments need to be used more strongly to get the existing clean technology on the road and to achieve a drastic reduction in the global warming impact of mobility. Yes, we can!

Crucial for achieving these results is that the policies are technology neutral. Incentives need to reduce CO_2 emissions, no matter by which technology. Policy support for specific technologies – be it electric, hydrogen, gas or bio fuels – need to be avoided, and existing support measures should be phased out. It is widely accepted that governments are not good at 'picking the winners'. It is a challenge for politicians to resist lobbies for specific technologies, because they can score better in the media by, for example, driving an electric car and by granting subsidies to bio fuels, than by tightening standards. Instead of promoting specific technologies, governments should only create strong incentives to reduce CO_2, while the winning technologies will result from innovations by the involved industries together with preferences of the buyers. Technological improvements should be mainly market driven and not subsidy driven. This approach will lead to the cheapest and fastest way to achieve the required CO_2 reduction, and is generally supported by involved industries.

Another justified wish from the car industry is to have a predictable timeframe for tightening the standards, giving them certainty and enough time for their R&D investments. Thirdly, neither the standards nor the fiscal and financial

10 Conclusion from a meta-study by the Netherlands Environmental Assessment Agency (PBL) and CE Delft (Geilenkirchen et al., 2010). The total fuel saving of a 10% increase in fuel price is for the long run even estimated at 6-8%, because car ownership and mileage will also diminish somewhat.

incentives should have discontinuities or steps. This avoids that industries have to focus – and waste – their efforts on these steps, because the size of the incentives changes there abruptly. The European Union should make a Directive to achieve this, thus ending the wide variety in existing national discontinuities.

Not only for economic and environmental, but also for political reasons it is important to design the policy instruments along the three lines of technology: neutrality, predictability and continuity.[11] Doing so avoids unnecessary opposition from the involved industries, thus increasing the acceptability of tighter standards.

4. Economy, Accessibility and Congestion

If clean technology contributes most to low-carbon transport, does this imply that current transport policies in Europe are on the right sustainable track? No, they are partly uneconomic and follow frequently a wrong compass.[12] To a large extent mobility policy chases the illusion of congestion free urban areas. This aim conflicts with a second fundamental mechanism in mobility – additional to the thrive for speed: good accessible locations attract new economic activities. This mechanism is, in fact, the economic rationale behind most infrastructure projects. However, these new industries, offices, houses, shops, theatres and so on attract new traffic, creating new congestion. This closes the circle. Many historic examples illustrate this mechanism. Ancient and medieval cities were often built at the crossroads of waterways and trails. And after railway stations were built just outside many cities in the decades around 1900, the further urban growth concentrated in the vicinity of the stations. Now the stations are in the heart of many cities, with high-rise buildings surrounding it. A third more recent illustration is that building ring roads around the larger cities in the 1960s, spurred urbanization at the outskirts, and these ring roads now belong to the most congested highways. Of course, this process of spatial adaptation to new infrastructure takes several years or even a few decades, but the outcome is inevitable. New infrastructure improves the accessibility of specific locations, making these locations attractive for new economic activities and urban development, which generates extra traffic, thus creating congestion. An indirect demonstration of this mechanism is the fact that there are no large cities in the world without congested roads. The absence of congestion might instead indicate that the urban economy is in bad shape.

11 The optimal design of policy instruments to achieve low-carbon transport is thoroughly discussed in a European Task Force on Transport and Climate Change with participants from the car, oil and transport industries, from environmental NGOs and from European and national government agencies. See the report for more information: *The pathway to low carbon transport in the EU – From possibility to reality* (CEPS, 2012).

12 See for an overview of national policies related to transport and climate change: *Member states in top gear – Opportunities for national policies to reduce GHG emissions in transport* (van Essen et al., 2012).

Policies of many countries to reduce congestion are based on the false assumption that increasing travel speed is the key to strengthen the urban economy. This wrong starting point leads to an overemphasis on road building. The correct starting point is that the large economic benefits of urbanization are the result of good accessibility.[13] And because accessibility is the time it takes to reach other activities, accessibility can be achieved by the combination of both nearness and speed. This is a crucial insight for transport policy, which is unfortunately overlooked quite often.

The economic value of proximity is in fact the driving force behind the urbanization process, which is a worldwide continuing trend for many ages. People and firms cluster together in cities, because they profit from the nearness of other firms and people.[14]

So, both urbanization and higher travel speeds can increase the accessibility, and thus the associated economic benefits. However, cities with a high density generate much traffic in a small area, which is impossible to cope without congestion. The economic value of nearness in these cases is higher than the economic costs of congestion. Starting from the proper notion of accessibility, it is clear that cities have a better accessibility than rural areas and compact cities better than a scattered built environment, despite a certain level of congestion.

Making large and high-density cities accessible – a condition for economic prosperity – requires mass transit, be it in public or private hands. Only mass transit can handle large flows of travellers at reasonable speeds in a crowded city. Because the speed of the car is rather low in urban areas, it is easier for mass transit to offer a competitive travel time. And because of the large volume of passengers in dense urban areas, mass transit can be economic viable. A comparison of the largest cities in the United States reveals that mass transit is more effective in reducing congestion costs than road building.[15] Moreover, car-city, Los Angeles, even has the highest congestion costs per inhabitant of all big US cities.

13 *See* Bleijenberg (2012) for a more extensive review of the links between economy, accessibility, urbanization and mobility.

14 A large market for consumer goods generates economies of scale in production and distribution, resulting in lower prices. A large demand also generates a higher quality and variety of services, such as theatres, leisure and shopping centres, while a large labour market allows for specialization and a better match between firms and employees. Another important benefit of a greater concentration of population is that knowledge and new ideas spread more easily. These and similar benefits of proximity are often summarized as agglomeration economies.

15 *Smart congestion relief – Comprehensive analyses of traffic congestion costs and congestion reduction benefits* (Litman, 2012).

Urban and transport policies in combination should strike the right balance between creating economic value by higher densities and by faster transport. Combating congestion is the wrong compass for transport policy. Two standard economic tools offer a better compass. The first is the use of socio-economic cost-benefit analysis (CBA) for expanding infrastructure networks. This is common practice in several countries and at the European Union level as well. The aim of CBA is to distinguish between profitable and unprofitable investments. The second economic tool is setting prices for transport, which correspond with the social costs. This needs to be done by governments, for there are no markets for infrastructure use, traffic safety and pollution. Setting economic prices will imply that user charges for cars will become higher, while fixed taxes can be reduced in several countries. User charges for trucks and vans need to be more than doubled, for they are currently underpaying for the costs they impose on society, mainly for infrastructure and traffic accidents. These charges will lead to higher load factors and to more efficient logistics. And last but not least, congestion pricing creates economic benefits by improving the accessibility of city centres.

It is estimated that the economic best combination of urban and transport policies will reduce CO_2 emissions from transport with somewhere in the magnitude of 10-20%. Compact cities with good mass transit, economic infrastructure building and transport pricing all contribute to this environmental gain. Although this is an important contribution to low-carbon mobility, it is modest in comparison with the potential CO_2 reduction achieved by fuel efficiency and low-carbon energy. This latter contribution is estimated at around 50-75%.

5. Images and Interests

Two surprising conclusions follow from the above summarized attempts to achieve sustainable mobility. Current transport policies are to some extent uneconomic. An economic approach would not only yield economic benefits, but in addition reduce the environmental impact of transport. Why is this win-win policy not followed?

Secondly, the most promising way to reduce CO_2 from transport – clean technology – is not the favourite approach of many green politicians and environmentalists. Why not?

This last section of this essay searches for some answers on these intriguing questions.

The economic approach of transport policy seems to be supported only by independent academics and by environmentalists. Mainstream transport policy focuses instead on infrastructure building, combating congestion and subsidizing public transport, believing that the first two are best for the economy and PT is needed for social and environmental reasons. This is widely seen as effective, however, contested in this essay. To summarize, common beliefs somewhat overdone: all new infrastructure is good for the economy, congestion is a sign of inadequate infrastructure capacity, freight transport should grow with the same rate as the economy, transport demand is price insensitive and finally, road users are the cash cow of finance ministers.[16] Most people – thus most voters – probably have similar images of mobility as their basic belief. And these popular images set the frame for policy makers. If most people believe that building more roads will solve congestion, politicians will follow this approach. Who is going to tell that congestion is inevitable in large urban areas? Who is going to tell that road users should pay more, because this is justified by the costs of infrastructure, traffic accidents and pollution?

However, the sketched mainstream image of mobility is largely incorrect. Therefore, these popular misconceptions of mobility need rectification, thus creating the scope for policy makers to move towards an economic sound transport policy. Just one illustration: in the 1990s, the Dutch Transport Minister was asked to take a stand in the at that time hot debate about the total costs of transport. The staff of the Ministry replied that they did not have an opinion on this issue. Do not be surprised that if you do not correct the false image that road users are a cash cow, that you will not get support for any form of pricing policy, as successive Dutch governments experienced in the last 20 years.

So, correcting popular images, and creating a more realistic view on mobility, is crucial for realizing a more economic transport policy. Doing so, it is important to realize that existing images are in the interest of powerful industries, such as construction, oil, car, railway and transport companies. It is their business to keep the transport system running. Furthermore, it would sure help if the media would employ more independent research journalists, who can critically distinguish between the general interest and special interests. Now the mass media recycle to a large extent information presented by the PR staff of companies and ministries.[17]

16 Many publications correct these common misconceptions. To mention just a few: *Getting the prices right* (Kageson, 1993), *Roads and economy – State-of-the-art report* (Bleijenberg, 1996), *Efficient transport for Europe – Policies for internalization of external costs* (OECD/ECMT, 1998), *Entkopplung von Wirtschaftswachstum und Verkehr – Beispiel Regionale Wirtschaftsförderung* (Petschow et al., 2008), *Price sensitivity of European road freight transport* (de Jong et al., 2010), *Cart or horse: Transport and economic growth* (Leunig, 2011).

17 In 2009, there were six times more professional PR people employed in the United States than news editors and reporters. In 1980, this ratio was only two (*Economist*, 2011). See for an uncovering description of current mass media *Flat Earth* news by Nick Davies (2009), journalist at the Guardian for 30 years.

The next question is why many environmentalists do not embrace clean technology as the main route towards sustainable mobility. As stated above, many greens support the more economic approach of mobility. This would lead to somewhat lesser mobility growth and together with building compact cities to better opportunities for walking, cycling and mass transit. This outcome is in line with the green vision on sustainable mobility. However, it is unlikely that the effective but unpopular policy measures required in this green vision will be taken, partly because of existing misconceptions about the economic impact of such measures. It looks as if many greens are more interested in achieving a shift to other transport modes or reducing mobility growth, than in reducing pollution itself. The western way of living is frequently seen as root cause of the environmental problems, and thus there is a need to change the consumer society. This wish, however, does not correspond with a vision on sustainable mobility mainly based on clean technology, which leaves mobility patterns largely unchanged. The following saying might apply to the approach pursued by many environmentalists: the perfect is the enemy of the good. Most likely, people prefer to drive a very energy-efficient car using low – or no – carbon energy, over not driving their car at all. So, policies to force clean technology into the transport system are both effective in reducing GHG and have a better chance to become publicly and politically accepted.

Finally, a third question: why are the advocated and promising policy measures for clean technology not high on the political agenda? Part of the answer is that clean technology is not backed by a strong industry lobby. However, there are a few exceptions. The power industry sees a new market in electric vehicles, gas companies see opportunities in natural and biogas as transport fuel and, thirdly, suppliers to the car industry see a chance in innovative technologies to make cars much more fuel efficient. But the large industries behind the transport services have an interest in continuing business as usual.

A second reason that standards and fiscal incentives are not high on the agenda is their limited appeal for the mass media. It is hard to get media attention for these rather dull and somewhat technocratic policy measures. On the contrary, it is achievable to get front page and prime time coverage for the opening of a new road or railway and for the latest model electric vehicle. So, the current intertwine between mass media and politics does not favour such rather invisible policy measures to achieve low-carbon transport. Images are in media and politics apparently more important than the effectiveness of measures.

This summary of images and interests influencing transport policy shows that a successful transition to sustainable mobility requires different kinds of efforts. Although the low-carbon technologies, as well as the policy instruments to get these applied, are largely available, the public acceptance of much stricter standards and strong fiscal incentives remains a delicate issue.

Creating a shared vision of the required pathway – instead of the current confusing and opposing positions – is an important step forward. This essay is intended to contribute to the development of a new and shared vision on sustainable mobility. Strengthening the evidence base – as opposed to wishful thinking – is needed to achieve this, in combination with a stronger focus on the general interest, instead of lobbies from vested interests.[18] Politicians need to institutionalize the general interest in, for example, independent research institutes and advisory councils and in legal procedures. Wrong images surrounding transport and mobility need to be actively corrected in and by the mass media, thus creating the acceptability of effective and economic sound policies in the public opinion.

It is clear that this agenda for sustainable mobility has a much wider relevance and reinforces the public case in general. Achieving sustainable mobility is just one of the issues requiring evidence-based policy and a stronger focus on the general interest in our societies.

18 Economic growth will be hurt if special interest groups accumulate too much power, concludes Mancur Olson (1982) in his book *The rise and decline of nations*.

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