



ORGANISATION INTERNATIONALE DES CONSTRUCTEURS D'AUTOMOBILES  
INTERNATIONAL ORGANIZATION OF MOTOR VEHICLE MANUFACTURERS

## **OICA contribution to ECMT Ministerial Session on Congestion**

OICA, the International Organisation of Motor Vehicle Manufacturers, represents the worldwide vehicle industry and federates 42 national trade associations around the world, including all major automobile manufacturing countries.

OICA welcomes that ECMT has devoted its annual ministerial meeting in 2007 to the issue of congestion as this poses an important challenge for transport policy in many countries. For example, in Europe, economic costs of congestion are estimated to be about 1 percent of GDP. As according to EU forecasts road transport will continue to increase between 2000 and 2020, a set of efficient measures is necessary in order to alleviate congestion.

However, information on congestion is sometimes in a way anecdotal, based on personal experience, bottlenecks and data subsets. Therefore it might be worthwhile to measure and monitor congestion on the basis of reliable indicators as a basis for policy decisions.

The main reason for congestion is that infrastructure capacity has not kept pace with the increase in road transport demand. Of course, one might conclude that the appropriate measure to fight congestion would be to reduce transport demand. However, transport is the backbone of the economy and of the functioning of society. Without transport, it would not be possible to benefit from the international division of labour. People would not be able in the same way as today to participate in societal life without mobility. Reducing transport demand, and especially road transport demand, would therefore not be in line with the aim of strengthening economic growth and of creating additional employment opportunities. This is especially true for road transport as within the transport sector, it is very often road which is the most important pillar. About 85 to 90 percent of passenger transport in both the EU and the USA is carried out on roads. In Europe, also more than 75 percent of inland freight transport is road transport. This importance of road transport is mainly due to its unique flexibility, reliability and cost efficiency.

Against this background, the fight against congestion has to concentrate on improving the efficient use of existing infrastructure and on increasing its capacity.

## Efficient Use of Existing Infrastructure

One important measure in order to increase the efficiency of road infrastructure use is the deployment of **Intelligent Transport Systems (ITS)**. For example, **dynamic parking guidance systems** are able to reduce congestion in urban areas. According to recent studies, about 8 to 22 percent of urban car traffic, depending on time of day, is due to drivers looking for parking space. ITS is able to reduce this part of traffic by providing up-to-date information on available parking facilities to the drivers.

Another example is **dynamic traffic signalling** on motorways adapting speed to traffic conditions and thus improving traffic flow.

A third example is the provision of **real-time-traffic-information** to drivers either via roadside traffic signalling, via dynamic in-vehicle navigation systems or via Internet for pre-trip-information. With RTTI available, drivers are assisted in choosing the appropriate route depending on traffic conditions. This in turn will lead to a better and more balanced distribution of traffic over the network. Whereas in some countries, provision of traffic information is already quite comprehensive at least for the motorway network, there is room for improvement in other countries and when it comes to including urban areas in traffic data provision. In order to collect traffic data in urban areas but also on interurban roads, vehicles themselves can act as data provider via Floating Car Data (FCD)-Systems. **Car-to-Car and Car-to-Infrastructure-Communication** will enable further data exchange improving traffic flow and enhancing road safety. Vehicle manufacturers are participating in field operational tests on Car-to-Car- and Car-to-Infrastructure Communication, as well as in tests looking into RTTI-provision via digital broadcasting. Governments are called upon to ensure internationally harmonised frequency allocation for Car-to-Car-Communication and to foster implementation of digital broadcasting. In the medium term, RTTI could be supplemented by the use of traffic and congestion forecasts for traffic management purposes.

Another measure worthwhile to examine is the adaptation of **vehicle dimensions**. Of course, maximum dimensions of vehicles depend on infrastructure characteristics and local circumstances. In Central Australia, longer vehicles can be utilised than in densely populated areas in Central Europe or Japan. However, the so-called modular concept with 25,25-m long truck-trailer combinations has been successfully in operation in both Sweden and Finland and has recently been successfully tested in the Netherlands. Therefore, it is now opportune to explore seriously this modular concept for Europe and to examine the possibility to transport a given amount of goods with less vehicles, less emissions and less use of infrastructure space.

Finally, there are a lot of **smaller traffic management measures** allowing a better traffic flow and thus leading to less congestion. One example could be the temporary use of hard shoulders on motorways during peak times. Another example is tidal flow allowing the use of more lanes into the city in morning hours and more lanes outbound in the evening. A third issue is the synchronisation of successive traffic lights to improve traffic flow and dynamic traffic lights management at main crossroads (e. g. depending on time of day, week etc.) European coordination and further flexibility of summer holiday periods can also be a means to alleviate congestion on summer weekends. In addition, driver training with a focus on smooth driving can make a contribution. Finally, experience in many countries show that better organisation of road works according to best practice is a possibility to further alleviate congestion.

### Extension of road infrastructure

In many cases increasing the efficiency of road usage alone will not be enough to fight congestion. Infrastructure extension has to be an **important part of transport policy** in many countries. Unfortunately, spending in road infrastructure in many countries is insufficient given actual needs. In Europe, for example, infrastructure investment is decreasing and makes up less than 1 percent of GDP these days. Against this background, intensive efforts are necessary to increase investment. This is particularly important in Central and Eastern Europe with comparatively high transport growth rates.

Insufficient total investment is not the only problem. In addition, the allocation of the money available does not follow market signals. In an attempt to foster modal shift from road to rail, several countries have invested a lot more in relation to transport volume in rail than in road. This tendency is also illustrated by looking at the EU's priority projects in the Trans-European Networks which are mainly rail projects. However, the modal shift aimed at has not taken place. Therefore, a **re-allocation of funds towards roads** would be appropriate in many cases. This is the more true as road transport pays a huge amount of specific taxes every year. According to an OICA survey, tax payment by car drivers, truck, bus and coach operators in EU-15, North America, Japan and Korea amounts to an annual sum of around 400 billion Euro. Therefore, it can be clearly stated that **finance ministers receive enough money from road transport to provide an appropriate road infrastructure**. To assert that road transport would not cover its infrastructure costs, which some take as an excuse for rail subsidies, cannot be justified by facts, as several studies on infrastructure cost coverage have proven. However, a lot of money coming from road transport is used for general budget purposes or to subsidise the rail sector.

In any case, it is the **wrong approach to use investment decisions to influence modal split**. The decision which mode of transport to use for a specific trip should be left to the user – be it private or commercial – because the user is best able to know which mode is the most appropriate. Distorting this decision via infrastructure policy will lead to a misallocation of funds and will reduce growth and employment opportunities for the economy.

Not to appropriately extend the road transport network would also be detrimental from an environmental perspective as **congestion and stop-and-go-traffic results in additional fuel consumption** and CO<sub>2</sub> emissions, which could be avoided by fighting congestion. For example, fuel consumption of a 40 t-truck might be up to ten times higher with heavy congestion compared to a situation with free traffic flow. A Norwegian study released recently found evidence that road realignments and upgrades can lead to a reduction of CO<sub>2</sub> emissions by up to 38 percent and of local pollutants by almost 75 percent.

### Charging Policies

In order to increase infrastructure investment, in several countries governments have created additional financing instruments like congestion charging or new road tolls. However, given the amount of taxes already levied on road transport, there is often a **lack of acceptance** among users to pay twice for using a specific part of the road network. Therefore traffic volume is much lower than originally forecasted for some toll projects, leading to economic difficulties for operators. In addition, there are **equity concerns**, as additional charges may make automobile mobility unaffordable to some parts of society. Finally, using charges as a means of influencing modal shift often leads to an increase in mobility costs alone, without any effect on modal split, as no viable alternatives exist to road transport in many cases.

In any case, revenue from road user charges, when their introduction is seen as appropriate, should be **hypothecated for road infrastructure** and should not disappear into the general budget. If a surcharge applies on congested motorways, it should be used to expand the motorway in order to alleviate congestion.

**Revenue neutrality** – that is compensation for additional charges via a reduction of existing taxes - is another means to increase acceptance of tolling.

A problematic aspect of charging can be the **high system costs for toll collection**. When taking these costs into account, charging schemes might not be beneficial from an economic point of view. As shown in a study recently published by the University of Paris, the net economic benefits of the Stockholm city charge are negative given the rather high implementation costs. Overall societal losses amount to about 100 million Euro per year.

Another issue discussed when charging is concerned is a **differentiation of existing charges** based for example on time of day. Higher charges in peak times are seen by some as a means to better allocate traffic over time. People who do not have to use motorways during the rush-hour might postpone their journeys. However, the possibilities to re-allocate traffic over the day are limited due to fixed working hours and given delivery times for factories and shops. Potential for re-allocation over time have already been used to a large extent.

Sometimes not only a lack of funds is the reason for insufficient infrastructure investment. A second problem is the **extremely long lead-time for infrastructure projects** in many countries. Any simplification of procedures and any reduction in planning time which makes it possible to faster finalise the improvement of the network brings economic benefits to society. Therefore, policy makers should always cross-check political initiatives for their effects on lead times for infrastructure projects.

### Conclusions

From the viewpoint of automobile manufacturers, both increased efficiency of infrastructure use and the extension of the existing road network in line with increasing traffic demand are needed to alleviate congestion. Among the measures to improve use of existing infrastructure, intelligent transport systems (ITS) like dynamic parking guidance systems, dynamic traffic signalling, the provision of real-time-traffic-information, the use of car-to-car and car-to-infrastructure-communication, but also the adaptation of vehicle dimensions are most promising. Improved efficiency alone, however, is not enough. Supplementing existing infrastructure funds and reallocation of existing funds towards roads are indispensable for adapting road networks to the needs of the future. Given the extremely high tax burden of road transport in many countries any additional charges should be offset by reduced vehicle and fuel taxes. Toll revenue should be hypothecated for road infrastructure.

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