



March 13<sup>th</sup>, 2008

# ECTRI'S POSITION ON EUROPEAN COMMISSION GREEN PAPER

## “TOWARDS A NEW URBAN MOBILITY CULTURE”

ECTRI  
European Conference of Transport Research  
Institutes

c/o INRETS—Case 24  
25 avenue François Mitterrand  
69675 Bron - France

## Table of contents

Preliminary remarks .....	4
<b>Answers to the questions of the Green Paper .....</b>	<b>6</b>
<u>Walking and cycling</u> .....	9
<u>Modal shift towards sustainable transport modes</u> .....	10
<u>How to increase the use of clean technologies in urban transport?</u> .....	11
<u>Joint Green procurement</u> .....	12
<u>Green zones</u> .....	13
<u>Eco driving</u> .....	14
<u>Information services for travellers</u> .....	15
<u>Standardization of ITS applications</u> .....	15
<u>ITS exchange of information and best practices</u> .....	16
<u>Quality of collective transport</u> .....	18
<u>Urban transport dedicated to bus</u> .....	19
<u>European Charter on rights and obligations for urban transport passengers</u> .....	19
<u>Passenger and freight vs research and urban mobility planning</u> .....	20
<u>Transport land use coordination</u> .....	21
<u>Automatic radar devices</u> .....	22

The Working Group on Urban Mobility is composed of the following members:

	<u>Czech Republic</u> - CDV Mr Vaclav Fencel	<u>Lithuania</u> – VGTU TMI Pr. Algirdas Jurkauskas Mrs Dalia Susniene	
	<u>Denmark</u> - DTF Mr Henrik Gudmunsson	<u>The Netherlands</u> - DVS Mr Henk Pauwels	
	<u>Finland</u> - VTT Mrs Marja Rosenberg	<u>Norway</u> - TOI Mr Frode Longva Mr Nils Fearnley	
	<u>France</u> - INRETS Mrs Claire Plantié-Niclause (Chair) Mr. Claude Soulas Mr Alain L'Hostis Mrs Sandra Bozzani	<u>Poland</u> - CNTK Andrzej Massel	
	<u>Germany</u> - DLR Dr Barbara Lenz Mrs Claudia Nobis	<u>Serbia</u> - TTEF Prof. Jadranka Jovic	
	<u>Germany</u> - FhG Mr Ulf Jung Mr Werner Schonewolf	<u>Spain</u> - UPM Mr Jose Manuel Mera Dr. Rocio Cascajo	
	<u>Greece</u> - HIT Dr. Yannis Tyrinopoulos Dr. Maria Morfoulaki	<u>Spain</u> - CEDEX Mr Miguel Mateos	
	<u>Greece</u> - HIT Dr. Yannis Tyrinopoulos Dr. Maria Morfoulaki	<u>Sweden</u> – VTI Mrs Kerstin Robertson Mr Tomas Svensson	
	<u>Italy</u> – POLITO Pr Cristina Pronello Mr Marco Diana	<u>United Kingdom</u> – TRL Mr Neil Paulley	

Videosurveillance ..... 23

European Observatory on urban mobility ..... 24

Structural funds and urban transport ..... 27

Market-based instruments and clean urban transport ..... 27

Targeted research activities ..... 28

Urban charging ..... 28

Added value of European support for financing clean urban transport ..... 29

---

## Preliminary remarks

ECTRI welcomes the fact that, with the publication of the European Green Paper “Towards a new urban mobility culture”, the European Commission put **urban mobility at a higher level on the European political agenda**. ECTRI is well aware that this document is a first step towards an in depth taking into consideration of questions linked to urban mobility and to possible solutions to improve quality of life in cities via a citizen- friendly mobility system.

ECTRI would like to underline that, on many of the issues addressed in the Green Paper, research has been undertaken, at the European level or at the national level.

**Urban mobility has been for a long time a research priority for ECTRI:** its researchers have achieved results that have to be used by the European Commission to go some steps forward. Because the research results **can in turn provide solutions to urban mobility questions, let's use them intensively!**

ECTRI therefore insists on **the necessity for the EU to have a clear vision of research results within Europe** in order to find answers to the 25 questions asked in the Green Paper.

It should be the role of the EU to collect these research results and to use them: by helping to consolidate them and by analysing where are the research gaps - in line with the questions of the Green Paper. This work is partly being done in the European Framework programme but what is

**Question 25:** What added value could, in the longer term, targeted European support for financing clean and energy efficient urban transport, bring?

The basic long term benefits and added value expected due to clean and energy efficient urban transport are:

- ⇒ Improved quality of life and better living environment for the citizens of urban regions
- ⇒ Protection of the environment
- ⇒ More rational use and protection of infrastructures
- ⇒ Decreased energy consumption through the use of alternative energy sources and less energy

**Question 23:** How could targeted research activities help more in integrating urban constraints and urban traffic development?

⇒ Targeted research activities will facilitate the **identification and analysis of barriers** and problems that affect urban mobility. This action will give the necessary data for the further identification, classification and development of the appropriate solutions that have to be adopted. Participatory approaches with the involvement of all bodies and especially those that will implement in practice these solutions are very important.

⇒ The present document in itself is an answer to that question. ECTRI is ready to help the European commission to deepen this point.

**Question 24:** Should towns and cities be encouraged to use urban charging? Is there a need for a general framework and/or guidance for urban charging? Should the revenues be earmarked to improve collective urban transport? Should external costs be internalized?

⇒ The successful implementation of the urban charging measure in cities like London and Stockholm has driven other European cities with similar characteristics and problems to examine very seriously the adoption of this measure. However, the enforcement of this measure should be accompanied with other actions that refer to infrastructure issues and better organization of the entire transport system. For example, if there is no effective public transport system and a strict parking control system in the wider area where the urban charging measure is implemented, then the measure will probably create more problems around the charging zones. Furthermore, an important pre-requisite is the establishment of an effective income exploitation system, which should be allocated to the improvement of urban mobility, to the upgrading of public transport, to the improvement of the infrastructure, to the development of mobility centers, etc.

missing is a global view of results achieved within the EU. Such an analysis will provide for sure many possible answers to the Green Paper questions and a good transferability of ideas to EU newcomers.

This issue could be a matter for the to-be-created **European Observatory for urban mobility** so that the collection and the analysis are ensured on a permanent up-to-date basis. Alternatively, such a collecting and analysing work could be the object of a call for tender.

However, ECTRI regrets that the Green Paper seems rather confused about what **accessibility** means. It starts by saying it is primarily about giving mobility-impaired people access to transport, but actually then uses the term in terms of access to facilities, jobs, etc. This latter definition is entirely right, and is what needs to be addressed (not mobility per se) - and that might needs to be said much earlier in any further document to set the scene. Having mentioned the mobility impaired, their issues are then ignored, which is a significant omission.

ECTRI is of the opinion that the discussion on **making better use of infrastructure** deserves a separate heading - it is hardly about optimising the use of cars - and surely there should be a separate section on **demand management**.

There might be an **over-emphasis on technology and 'green' transport**, with underlying problems such as congestion, mobility, land use, institutional issues having a rather lower profile. Thus, for instance in the introduction there is no mention of the role that **demand management** - and, in the longer term **land-use planning** - can play in facilitating access to facilities and reducing the need for travel, and little setting of the context in which travel needs to take place.

ECTRI is of the opinion that the section on **congestion** should have been more developed. It contains some analysis but rather mixed-up arguments are employed. Thus ECTRI is of the opinion that **teleshopping**, tele-working etc. are hardly about optimising the use of private cars - it is much more about lifestyles. While such activities can be encouraged their impact on car use overall is unclear. The discussion on **parking policies** could as well be improved.

Generally speaking for every item, the **role of the EU** could be:

- ⇒ identify and analyse best practices
- ⇒ promote best practices
- ⇒ definite new research
- ⇒ launch new research
- ⇒ and on a case by case basis provide new European rules or recommendations.

EU could also go further in its action in terms of **benchmarking** for selected, delimited issues (possibly such as e.g. green logistics, retail location planning, light rail construction, mobility plan drafting, public transport tendering...) where dedicated programs could be established, with groups of cities (one as lead in each group), involving shared formulations of targets and indicators, parallel implementation processes, in depth mutual peer-review and learning efforts, and with the EU providing significantly more in terms of coordination, monitoring frameworks, research and evaluation input, lesson drawing, and dissemination efforts than today: some kind of 'open method of coordination' for sustainable transport at the urban level.

- ⇒ The success of such an Observatory will be linked to its recognition as a pertinent and trustable tool by the various concerned actors: this is why these actors, and especially local authorities, should be associated to its creation and to the definition of its mission and scope.

**Question 21:** How could existing financial instruments such as structural and cohesion funds be better used in a coherent way to support integrated and sustainable urban transport?

- ⇒ First of all, the access to programmes, which provide co-funding by various authorities and funds, should be facilitated in such a way so that the various funding opportunities are wide known. The ease access to knowledge, call for applications and funding sources is very important. Secondly, the proposals submission procedures and grant contracts should be less bureaucratic and time consuming.

- ⇒ Furthermore, it appears that the research centers and universities use more the various funding opportunities. This is mainly due to the lack of experience, know-how and specialized staff in the industry (particularly SMEs) and the subsidies of public authorities. Therefore, more efforts and support is needed for those bodies, which will be the main operators of the sustainable and viable transport solutions.

**Question 22:** How could economic instruments, in particular market-based instruments, support clean and energy efficient urban transport?

- ⇒ Economic instruments will facilitate investments of the private sector in the solving of long lasting problems due to their high cost. Indicative example is the replacement of the freight transport fleet (particularly in city logistics), which generate lots emissions and effect the environment in a very negative manner.

Economic instruments could also contribute to a series of other actions, such as improvement of infrastructures (e.g. terminals and stops), development of advanced ITS applications, and many other. Public Private Partnerships schemes should be promoted in a more intensive way.

Moreover travel surveys are burdensome (mainly due to the large number of items and the repetition of the same questions such as location, mode, purpose, etc. ).

⇒ **Mobile communication technologies** including Geographic Positioning System (GPS) and Radio Data System (RDS) have advanced rapidly and their prices are decreasing. They demonstrate great potential as **survey instruments for tracking individual travel behaviour as well as freight movement**, by surveying during longer period, providing more accurate data on the spatial and temporal framework of travel, with a relative low burden for interviewees.

⇒ Hence we are at the turning point where aiming at producing guidelines towards European harmonized travel surveys (either for passenger and freight) should take the opportunity of the development of new technologies. For a period when behaviours are changing, due to rapid increase of fuel price and other factors, an important issue is a **continuous data collection**. It is already the case for Continuing Survey of Road Goods Transport harmonized by EUROSTAT (but data on energy consumption don't exist in all countries and aren't centralized) and for NTSs in few countries.

#### Data collection on urban freight flows

⇒ Cities should be encouraged to **finance regular freight surveys**, as most cities do for travel surveys. There are big gaps in urban mobility statistics at the EU level, but also at the local level when freight flows are concerned.

⇒ The **Bestufs II** project has demonstrated the benefits of detailed exchanges between universities, administrations, experts of the different Member-States and at a EU level on urban freight surveys. There is a need for further research activities in data collection and modeling methods and results.

⇒ **A European Observatory on Urban Mobility would be extremely useful** in promoting cities and academic efforts on freight data collection methods and results.

In order to do so, it is suggested to capitalize on the results of the 5<sup>th</sup> FP Thematic Network BEST (Benchmarking European Sustainable Transport) and corresponding BEST Scandinavian project (Benchmarking European Service of Public Transport) and BOB pilot projects (Benchmarking of benchmarking).

The European Observatory for urban mobility proposed in the Green Paper might be a tool for this deepening of EU role.

And of course, **EU has to encourage and finance research** and especially:

a) **Transversal research** integrating various items. Some researches could integrate elements of questions 2, 3, 11, 12 and 15. There are many interactions and synergy effects

b) Help to define a **good balance between big research themes**. Some research themes such as ITS and so called "green cars" are very well promoted in various programs at European and national level, with important fundings. There are of course many things to do in these fields. But other fields related to the alternatives to cars (eg inside cities) are not so much promoted, even if many things are announced. One important topic among other is **space affectation inside cities**, and this is transversal to several questions.

## Answers to the questions of the Green Paper



veys (NTSs) exist essentially in Europe; they have already been conducted in about 20 countries and are planned elsewhere but with different methodologies, which make comparisons difficult. The only experience of a **harmonized survey** is the FP5 DATELINE project (following suggestions from MEST and TEST FP4 projects) on long distance travel, with methodological difficulties not yet overcome for a consistent estimate of trip making in the band 100-400 km.

For road freight transport truck surveys are harmonised by EUROSTAT, but suggestions made by MYSTIC FP5 project for a shipper survey have been followed only in France (ECHO survey in 2004), while in US the truck survey is stopped and a simpler shipment Commodity Flow Survey is conducted every 5 years.

⇒ There is a **need for travel behaviour comparisons** both between European countries and with data collected in the past in each and every country. Promoting new technologies (e.g. experiences with GPS which should be generalised with GALILEO) could help for this harmonization of concepts and methods.

⇒ **Harmonized data sources for the transport sector** should allow the assessment of past policies, in term of efficiency and equity. It should also allow the elaboration of **new policies measures** at the European level (e.g. to reduce the emissions due to transport).

⇒ **Transportation policies are becoming more sophisticated.** Thus more detailed attributes of travel behaviour are required for travel demand analysis and modelling.

For a description and analysis of trends, as well as of changes in behaviour, conventional travel surveys (only one week day in winter out of school holiday periods, i.e. when traffic flows are maximal) are not enough: for environmental issues, mobility has to be described all along the year (e.g. 24 hours of the day, seven days of the week, and even possibly all seasons of the year, i.e. 365 days).

**Question 20:** Should all stakeholders work together in developing a new mobility culture in Europe? Based on the model of the European Road Safety Observatory, could a European Observatory on Urban Mobility be a useful initiative to support this cooperation?

⇒ The creation of a European Observatory on Urban Mobility was an ECTRI proposal and ECTRI very much welcomes the fact that the European Commission considers the creation of such an observatory. Such an Observatory could help put together, compare and analyze various set of data and could also deal with some other issues proposed in the present document. It could be the place for an operational synthesis of the existing initiatives.

⇒ At the European level, there is obviously a lack of a place to compare data and to explore them because there is a lack of common collecting and of common indicators. A huge work has to be achieved here: this work is necessary to understand urban mobility in all its components and to be able to make comparisons and to exchange and transfer good practices.

⇒ The transport sector is one of the major sources of global warming, from individual travel behaviour (especially car dependency) and from freight delivery (mainly achieved by truck). Travel and freight surveys, as well as behavioural data collection, are essential to elaborate transportation policies that encourage more environment-friendly transport modes, and various data collection methodologies have been proposed in recent decades.

⇒ Several national surveys are already harmonized by EUROSTAT: expenditure surveys and time use surveys (from which some information can be derived on daily mobility). But it is not the case for daily mobility, even if sustainable transport is a strategic issue for Europe (see the 2001 White Paper revised in 2006). While local mobility surveys are conducted in many urban areas all over the world, National Travel Sur-

**Question 2:** What measures could be taken to promote walking and cycling as real alternatives to car?

⇒ As it is the case for public transport, one of the main issue here is the **intermodality between soft modes and cars and their complementarity**. It would be useless and counterproductive to try to impose totally car free cities. Walking or cycling or even public transport can not replace cars. Each mode has its own role. On the other side, people awareness of the environmental emergency and of the need to ensure a better quality of life in cities is progressing everyday.

⇒ In order to **develop bike use**, one important point is to take into consideration town development. Towns are mainly designed for cars and especially in France for example, even if the image given might be more soft modes friendly. And this is true even in Paris where some effort has been made to create reserved bus lanes and cycle lanes. One of the question is: more intersections and more one way streets also are a problem for bikes when the main goal of those measures is car traffic. The latter is a fundamental issue for bike development within cities and it might deserve a specific research project in order to find some solutions. This could be the object of a European call for tender or the EU could provide support whatever its form to deepen this question.

⇒ In any case EU should built upon existing experiences such as Velib' or Velov' in France or Call a bike in Germany. And it should be kept in mind that a significant increase of bike use can only be the result of a global strategy and town policy, that might take time and that should include infrastructures, bike itineraries, parking facilities etc.

⇒ For **pedestrians**, one needs to think about intersections conception: at the time being intersections are made for cars. Why not take example on what is being done in Tokyo, Japan, in certain crossings where all traffic lights are red for cars in order for pedestrians to cross in all directions, including in diagonal. On a more general level, works

could be carried out in order to improve cities conception and activities location to facilitate walking.

⇒ Improving the use of public transport is also a matter of **improving walking conditions** within the cities as walk is the main feeder mode for public transport. In many cases accessibility to public transport stations can also be improved by improving walking conditions.

**Question 3:** What could be done to promote a modal shift towards sustainable transport modes in cities?

⇒ The modal transfer issue is part of the **mobility management** issue. At the same time **individual behaviour** is at the core of sustainable urban mobility. ECTRI regrets that the underlying premise in the Green Paper is that people's mobility needs need to be met, rather than addressing what those needs might be. Those should be understood before long-term sustainable solutions can be found. It is true some of these points are addressed later on in the Paper, but not as a context in which the arguments should be pursued.

⇒ ECTRI would therefore like to underline that **understanding is the first mandatory step to any measures envisaged to improve urban mobility.**

⇒ To favour modal transfer to public transport or to soft modes, many steps could be taken:

1/ **Understand why people use their car:** to go where, at what moment of the day, in what type of situation. Research has already been undertaken on this subject: let's use their results and consolidate them in order to have a clear picture of what has been done, see what solutions could be implemented and what more issues needs to be solved.

2/ **Understand what are the alternatives to car** in a given city: public transport and soft modes

**Question 19:** Is video surveillance a good tool for safety and security in urban transport?

⇒ The introduction of video surveillance is a very well-known fact and is currently use by numerous public transportation companies. Video surveillance can be use to promote safety and security but need that some objectives are previously defined. It is so obvious that the objectives are similar, that means to define means of coordination between both of the objectives and to grasp the needed information to locate the cameras.

⇒ Video surveillance is one part of the answer to promote safety and security. First, it constitutes a mean of intrusion in the private life of citizen. The authorities using such a device have to define a charter to protect the right of users. Second, video surveillance can not constitute the whole answer to the problem of safety and security. It means the public authorities and the private transportation companies have to define a memorandum of understanding to establish the role of each partner. It requires also a specific controller team to show a real presence within the public transportation network. It constitutes a complementary means to enforce the law, but human **presence and contacts are required.**

**Question 18:** Should automatic radar devices adapted to the urban environment be developed and should their use be promoted?

⇒ Urban environment is characterized by a huge level of mobility and **specific accident configurations**. Public Authorities can mobilize different means to influence traffic safety outcomes. The design of road infrastructure and the physical conception of roads are among traditional solutions. However the automatic enforcement of traffic safety laws is a very promising solution, especially for speed control and red light enforcement, which represent a cost effective solution.

⇒ The **Automatic Speed Enforcement systems are a very effective solution** to decrease the number of fatalities and injuries. Numerous empirical studies confirm these results. See for instance the British case.

⇒ However the implementation of such system implies that the authorities have to define a **clear strategy**. They have to define their objectives and obtain the appropriate knowledge (data about the locations and the reasons of accidents) to implement the system as a good answer to the problem they face.

⇒ The use of **fixed devices** appears as the most effective solution to reduce speed in heavy traffic arterials. Fixed devices are appropriate means for solving local problems (black spot) or special risk locations (tunnel for instance). Red light cameras can be also very useful to make safer road use for pedestrian.

3/ Deal with the **question of time** in general and more specifically with the question of a better use of time for citizens: it might be that they prefer to take public transport if they can shop at the station at the same time for example.

4/ When car use is complicated, people look for other solutions: a balance needs to be found between **restricting parking** on the street and make traffic for cars inside the cities more difficult and the need of social equity. Solutions such as redistribution can be searched in order to increase taxes without creating perverse effect (avoiding that only the richest do have the possibility to use and park their car). Emphasize should be put **on car and other modes complementarity, which depend on various factors such as the type of area considered**.

5/ Above all **people have to be aware** of alternative solutions to the car. Public transport and soft modes should advertise for their services just like the car does. This might be an issue for local authorities but the EU could provide guidance or frame or good practices on how to make people aware of the various possibilities.

**Question 4:** How could the use of clean and energy efficient technologies in urban transport be further increased?

⇒ As far as **freight transport** is concerned, in cities it responds very effectively to the requirements of modern urban economies. However, it is a major contributor to environmental impacts, particularly to local air emissions and, as a result, has an important impact on the health of the most vulnerable residents of large cities. Urban freight activities, therefore reflect a global approach to sustainability. They embrace economic, social as well as environmental issues simultaneously, but in a particularly conflicting way. Under the current conditions of the urban freight industry, the economic viability of cities might actually be benefiting from socially and environmentally *unsound* transport operations. Moving towards sustainability – a better performing but still af-

fordable transport system - would require the development of a modern and innovative sector. This would mean quite an important change to the urban freight paradigm, which can still be characterized, in many European cities, as “low cost, low standards”.

⇒ Vehicle technology is improving rapidly. However, one of the main issues is **the poor state of the current fleet of commercial vehicles in cities**, mostly operated by small operators, often acting as subcontractors to large transport companies. It is therefore important that cities encourage a modernisation of *currently running* vehicles. Some cities take regulations favouring low-emitting trucks (in Green Zones or elsewhere). These initiatives should be promoted and encouraged. Cities should be encouraged to give subsidies to small operators converting to cleaner trucks. Regarding CO<sub>2</sub> emissions, hybrid vehicles look promising because of the “stop and go” character of urban deliveries (energy consumption by a vehicle is exponentially increased during stop and go).

⇒ One major problem in the use of clean vehicles in **public transport** is the **replacement of the conventional fleet**. There governmental financial support should facilitate the solving of this problem. Cities should be encouraged to give subsidies to small operators converting to cleaner trucks. The development of hybrid commercial vehicles should be encouraged at a European level.

#### Question 5: How could joint green procurement be promoted?

⇒ At a first step, the joint green procurement can be promoted through pilot programmes that will demonstrate the benefits and added value of this practice. Simple models could be developed, based on which Municipalities, for example, could implement the joint green procurements that fit to the scope of the action and the relations with the Authorities. Such programs could also bring other benefits, such as new clients, lower prices for the environmentally friendly products and services, demonstration of environmental knowledge, etc.

#### Question 15: How can better coordination between urban and inter-urban transport and land use planning be achieved? What type of organizational structure could be appropriate?

⇒ **Freight infrastructure** planning is quite insufficient in many European metropolitan areas. The location of freight terminals and large infrastructures (including intermodal facilities) is often regulated on a local basis (municipalities), whereas metropolitan and regional governments do not have jurisdiction over land use decisions and building permits.

⇒ It has been demonstrated by the French mobility plans that even when good strategic freight planning takes place, it is poorly enforced if only local (municipal) governments have legal jurisdiction to apply measures (such as building permits or traffic ordinances). Municipal decisions over building permits for large warehouses and freight facilities can lead to the development of “logistic sprawling” and logistic facilities with poor accessibility. These zones can generate important vehicle-miles (for both trucks and cars) within the area.

Considering the above, the EU should encourage the creation of **integrated logistics planning authorities** with full jurisdiction over land uses and warehouse and logistics facilities building permits at a metropolitan or regional levels.

⇒ For **passengers transport** first investigation already carried out in the French German project BAHN.VILLE shows the importance of a better coordination between land use planning and railway line operation, for example by improving urbanization around the stations. Other investigations could be carried out at a European level.

⇒⇒ If such a charter would be adopted, ECTRI is of the opinion that it can contribute to reinforce a link between European citizens, especially for young people.

For such an initiative to be successful it would be necessary:

⇒⇒ to establish a good balance of rights and duties for the passengers and for the transport companies

⇒⇒ to ensure a very good communication around the charter so that people know about it and make the Charter ours

⇒⇒ to make sure the charter is written via a consultative process that will involve transport companies, local authorities in charge of transport, citizens and public transport passengers

**Question 14:** What measures could be undertaken to better integrate passenger and freight transport in research and in urban mobility planning?

⇒⇒ **Training programs and expert staff:** ECTRI strongly supports the Green paper suggestion that urban transport needs highly qualified staff. This is particularly true for freight policies. Few European cities yet have trained staff dedicated to freight issues.

Hiring specialized staff could lead to a substantial increase in the efficiency of local freight policies as well as best practice exchanges among European cities.

⇒⇒ National administrative structure should be used: in France for example local authorities of a given territory are part of local groupings called “Intercommunalités” which can take various forms. To this common structure the local authorities of the given area delegate some competencies, one of which is quite systematically transportation on the territory. Joint green procurement might find there some “demonstration sites”.

**Question 6:** Should criteria or guidance be set out for the definition of Green Zones and their restriction measures? What is the best way to ensure their compatibility with free circulation? Is there an issue of cross border enforcement of local rules governing Green Zones?

⇒⇒ The Green Zones are a **traffic control and management measure** for achieving environmental gains, reduce traffic congestion, promote public transport, etc. In addition to the fact that the national legislation should allow the enforcement of such a measure, the form of the implementation of this measure should be in line with the formulation of the appropriate conditions and pre-requisites (organizational, legal, economic, infrastructure, etc.) which will secure the sustainability/viability of the measure, the smooth operation of the entire transport system, and the quality of life. For example, Green Zones in the form of upper limits for the emissions generated from the vehicles cannot be effective unless they are accompanied with an efficient public transport system and of course with a reliable monitoring system. Thus, an integrated approach of the Green Zones measure is necessary taking into account socio-economic aspects too.

⇒⇒ Although most cities use EURO standards when regulating truck access to Green Zones, other local truck ordinances can vary considerably from one city to another (dimensions, tonnage, age, delivery windows, etc.). There is not always a true technical rationale behind local decisions. Therefore, guidance and proposed harmonized rules for

truck access particularly within a Green Zone scheme in cities could be proposed at a European level.

⇒ Furthermore, the EU should encourage **benchmarking on technological solutions for Green Zone** and congestion charging enforcements, especially regarding commercial fleets, which have specific needs (automatic billing systems).

#### Question 7: How could eco-driving be further promoted?

⇒ It is important to underline that Eco driving is not only an urban but also a national and European issue.

⇒ The eco-driving should be established in the daily practice of all drivers. The promotion of eco-driving can be achieved through **awareness campaigns** by the media and seminars by the relevant authorities, but also through the introduction of the appropriate training in the driving license programs.

⇒ Eco driving to be promoted might need an **embarked instrument** on board vehicle that will explain the driver the impact of its driving way on environment.

⇒ Considering the **noise issue**, it has to be underlined that noise reductions in urban delivery operations could lead to a very substantial benefit for cities because, contrary to people's mobility, freight mobility can be transferred from peak hours to off-peak (even night) hours, leading to a potentially important decrease in congestion. Current good practice (Piek program in the Netherlands, experimental schemes in London, Barcelona, Dublin...) should be promoted at a higher – European – level in order to accelerate their development elsewhere in Europe.

#### Question 12: Should the development of dedicated lanes for collective transport be encouraged?

⇒ The answer is clearly yes; the following ideas have to be considered: 1) there is again a balance to be found between car users and public transport users, 2) it is obvious that there is no more space in European cities, that air pollution is more and more unacceptable, 3) modal shift toward public transport is a mean among other to save space, more especially if we consider guided system with narrow gauge, 4) there is still room here to research innovative solution to create such reserved lanes in the most efficient way and considering each specific urban context..

⇒ More specifically there is a need to see how the use of these lanes can be adapted to the reality of cities. Solutions will depend upon the size of the city, upon the transport means available upon the infrastructure design of the city etc. For example why not imagine that reserved lanes are open to cars during the week- end, when people travel with children or have to shop and carry goods? What about bikes then?

⇒ It is difficult to imagine a “one fits all” solution but some tailor made ones, for group of cities sharing some characteristics that have to be defined, might be an issue.

#### Question 13: Is there a need to introduce a European Charter on rights and obligations for passengers using collective transport?

⇒ Although not considering this issue as a priority, ECTRI welcomes such an idea. Such a charter would be an interesting symbolic step. Public transport is a collective transport mode: like in all collective situation some behaviour rules might be respected (here again importance of behaviour and of understanding behaviour). Although this charter should not have a binding effect “per se”, it can be adopted by transport companies and become a common European reference.

**Question 11:** How can the quality of collective transport in European towns and cities be increased?

⇒ A **transversal approach** is necessary. Technological improvement of public transport systems have to be pursued in different directions, but it is not sufficient. Many other measures are necessary. The most important one might be the implementation of a good synergy between different measures concerning : the improvement of public transport, the regulation of private car transport (space affectation, parking policies,..), the complementarity with soft modes and car sharing, land use, ....

⇒ General works have to be carried out (including interfaces with the city) on the other hand specific works have to be carried on all public transport systems: new bus systems as well as classical tramways or new tramways, automatic light metros, regional systems, ... The intermodality between various public transport modes is a key issue , including conception of innovative interchange stations, implementation of new services which can be either linked or not linked to the transportation function.

⇒ Quality of public transport is also about comfort including: dynamic comfort, vibrations issues, acoustic and air quality. It is extremely important here to know well passengers expectations by making preliminary studies.

⇒ Some suggestions made in answering questions 2, 3, 6, 8 and 10 can also contribute to improve public transport quality in the frame of a transversal approach.

**Question 8:** Should better information services for travelers be developed and promoted?

⇒ The answer to this question can obviously only be yes.

⇒ The accurate information provided to the travelers about the road network conditions, the operation of public transport, the alternative mobility schemes, etc. can contribute effectively:

⇒ to the rational allocation of traffic in the network,

⇒ to the achievement of environmental gains,

⇒ to the increase of transport capacity,

⇒ to the promotion of public transport,

⇒ to the better management of the available infrastructure, etc.

Therefore, the development and promotion of the appropriate information tools and services is a very important action and is totally in line with the various actions and programmes taken at a European level.

⇒ The traveler information can be achieved at several levels of details, with the use of many communication means and in various stages of the journey. The integrated information provision implies the communication of information before and during the journey execution. Regarding the various means that can be used, these vary from mobility centers, mobile phones, Internet, VMS, etc.

**Question 9:** Are further actions needed to ensure standardization of interfaces and interoperability of ITS applications in towns and cities? Which applications should take priority when action is taken?

⇒ The interoperability of ITS applications is still a field where significant action is needed both from political/legislative and scientific/technological perspectives.

The political/legislative level refers to the cooperation among the various parties involved (local authorities, research centers, public agen-

cies, universities, etc.) in such a way so that all the efforts in developing ITS applications are wide known and operate under a common architecture towards interoperability and interconnectivity.

From a scientific perspective, the standardization should be investigated further both from the point of view of functional/communication architecture and data structures.

⇒ On the issue of **freight**, it has to be noted that few trucks circulating in urban areas are equipped with up to date technology such as GPS or delivery tour optimization tools. ITS products are generally not targeted towards urban freight operations. Whereas many urban operators are too small to be benefiting from sophisticated optimization tools, they could benefit from receiving specific information about traffic conditions and regulations in the cities they operate in. Local rules (access, parking, delivery windows), should be better integrated into mainstream on-board digital mapping systems or made available through variable message signs and internet web sites operated by municipalities.

⇒ **Standardization at a EU level may not be needed.** Strong promotion of awareness among ITS developers and stakeholders (transport operators, shippers, local authorities) may bring more benefit.

**Question 10:** Regarding ITS, how could the exchange of information and best practices between all involved parties be improved? (see also Q 9)

⇒ There are several parties (industry, research centers, universities), which are active in the research, development and implementation of best practices and innovation with the use of ITS. The exchange of information and best practices demands the effective cooperation of all these parties through well coordinated actions. These actions should refer:

⇒ to the central collection of all these ITS products per scientific field,

⇒ to the development of data and knowledge bases,

⇒ and to the wide diffusion of know-how through libraries networks, conferences, seminars, etc.

⇒ What operators of urban freight delivery need are **products targeted towards urban needs**, including the integration of local access and delivery rules into mainstream on board mapping information, variable message signs and internet municipal websites.

⇒ The EU could play a role in **promoting awareness and research** programs to develop further these types of ITS. Consolidation schemes for urban deliveries could be encouraged through the establishment of local public private consultation processes and partnerships. ITS could support specialized consolidation projects such as on building sites or historic city centres.

⇒ It has been shown that urban freight consolidation ("**City-Logistics schemes**") can lead to a decrease in the number of vehicle-miles and emissions generated by urban deliveries. These schemes generally have a high cost attached to them. The EU should encourage increased awareness towards small urban freight and logistics operators regarding the potential benefits of consolidation. It should encourage the development of local private public partnerships:

⇒ to establish local charters on urban deliveries

⇒ to promote the development of private or public/private consolidation schemes, including schemes targeted on specific locations (pedestrian streets, urban commercial centres, large building sites). These experiments could benefit from optimisation tools and ITS.