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REPLIES OF GOVERNMENTS TO QUESTIONNAIRE ECE/RCTE/PC/2

SUMMARY OF PART III

Addendum 1

Note by the secretariat

This document reproduces in their original language the replies of the Governments of the Czech Republic, Denmark, Finland, France, Germany, Italy, Liechtenstein, Malta, Netherlands, Norway, Romania, Slovenia, Sweden, Switzerland, the Former Yugoslav Republic of Macedonia and Turkey to Part III of the questionnaire, received in English and French up to 24 October 1994.

Replies received in Russian (needing translation), and other replies to be received after the date indicated above will be reproduced in separate documents.

Letters **A**, **U** and **P** which appear in the text of some replies indicate according to the questionnaire measures already **Applied**, **Under consideration** and **Projected** for the future, respectively.

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REPLIES TO PART III OF THE QUESTIONNAIRE

Replies to Question no. 16

CZECH REPUBLIC

The document "Principles and objectives of the state environmental policy for the period of 1994-1996" include the whole transport sector. Based on this document a "Programme of action for the environment, 1994-1996" has been elaborated with the following main objectives:

Stimulation for railway transport development.

Stimulation for public transport development.

Stimulation for combined transport development and supporting of technical measures for reducing emissions from mobile sources.

Minimizing of environmental risks by accidents and by transportation of dangerous substances.

Support of the infrastructural measures.

In order to reach the objectives mentioned above, there are a number of new legislation measures to be taken:

Adjustment of tariffs and charges for air pollution.

Introduction of environmental elements into the tax system. A possible introduction of a tax for the environmental protection.

Proposal for introduction of the environmental insurance duty.

The actions of different Ministries is harmonized by intersectorial commissions. The main strategic document for the transport sector is the "Strategy of transport policy for the nineties".

FRANCE

Le Gouvernement français a tenu à ce que les contraintes environnementales soient l'un des éléments à prendre en compte en cas de projet de construction d'une infrastructure de transport.

Des études dites "globales" c'est-à-dire prenant en compte l'ensemble des aspects sociaux, économiques et traitant en détail les questions d'environnement, notamment l'internalisation des coûts externes sont désormais pilotés afin de mieux évaluer chacune des infrastructures projetées (autoroute, ligne TGV, liaison fluviale à grand gabarit, ligne ferroviaire à gabarit fret). Une loi (décembre 1992) dispose qu'un rapport sur l'évolution de l'impact des infrastructures sur l'environnement est obligatoire cinq ans après la construction de celles-ci.

En outre, un débat est organisé pour évaluer les performances respectives des différentes infrastructures qui font partie d'un corridor donné (par exemple, le doublement de l'autoroute Paris-Lille, la liaison à grand gabarit Seine-Nord, le TGV Nord-Europe).

Enfin, le Gouvernement français a récemment adopté un programme national de prévention du changement de climat à l'intérieur duquel sont imaginées plusieurs dispositions relatives aux transports.

DENMARK

The Danish government considers that the forthcoming years' greater challenge in transport policy will be aligning the objectives of continuing to operate an efficient and flexible transport infrastructure for the population and the business sector as well as the sustainability in the transport sector.

FINLAND

The Government of Finland has recognized the principles of sustainable development. A special committee has been established to deal with these issues e.g. reconciliation of development and protection of the environment.

The Ministry of Transport and Communications has prepared a comprehensive "Environmental Programme for the Transport Sector". The programme specifies the objectives for reducing the environmentally harmful impacts of transport by the year 2000 and the action required for meeting these objectives by the Ministry alone or in cooperation with other Ministries and authorities. The programme is organized along problem areas like greenhouse gases and other pollutants, air quality, noise, water management, water resources and ground water, assessment of environmental impacts, environmental awareness, research and monitoring. The programme also includes components such as improved land use planning and reduced traffic volumes.

GERMANY

Le Gouvernement fédéral estime que sa politique devra avoir comme objectif de garantir aux personnes et aux marchandises une mobilité durable et respectueuse de l'environnement.

Il se base sur les quatre stratégies suivantes pour assurer l'écoulement du trafic dans le respect de l'environnement:

- éviter du trafic.
- transférer du trafic vers des modes de transport plus respectueux de l'environnement.
- apporter des améliorations techniques aux véhicules et aux carburants, ainsi que

- informer et sensibiliser la population sur une utilisation plus consciente des véhicules à moteur.

Sur la base de ces stratégies un train de mesures a été développé dont une partie sera mise en oeuvre dans le cadre d'une coopération européenne.

ITALY

The Italian government has elaborated a Three Year Plan for 1994-1996 for the protection of the environment which became law on 11 March 1994.

LIECHTENSTEIN

A/P

Causing, avoidance, providence and sustainable development as principles in new law.

U

Law on regional planning.

MALTA

U

Private vehicle restraint through parking permit and restriction schemes in congested areas, especially where pollution helps in destructing valuable monuments.

A

The use of unleaded petrol.

U

Looking into the possibility of introducing more environmentally friendly vehicles especially for public transport.

P

Distributing the negative impact of high transit influx through developing the use of vessels which carry passengers only, thus reducing the use of private cars on small islands, e.g. Gozo.

NETHERLANDS

A

The main policy in the field of transport is described in the Second Transport Structure Plan (SVV II).

The goal of achieving a sustainable society is the basis of strategy in the SVV II. That means that clear targets are laid down for air pollution, energy consumption, noise nuisance, road accidents and the fragmentation of nature and the countryside. As far as the environmental objectives are concerned which are laid down in the National Environmental Policy Plans, SVV II

specifies these targets for the transport sector as a whole. Over and above this, the SVV II aims at a selective improvement in accessibility (congestion reduction), particularly with a view to retaining and strengthening the transport and distribution function of the Netherlands.

A

According to the vision mapped out in the SVV II, a strategy of simultaneous improvement in the quality of life and accessibility can be achieved via the following five strategies :

1. Tackling problems at source: this means that vehicles must be as clean, economical, safe and quiet as possible. Driving behaviour must be improved (safe and environmentally friendly). Limits have been set to vehicular accessibility in order to guarantee the quality of life in urban areas and to prevent further encroachment on the natural environment.
2. Managing and restraining mobility: growth of car use must be reduced and the modal split must be altered to the benefit of public transport, the bicycle and car-pooling by influencing behaviour, location policy (reduction of travelling distances) and pricing policy.
3. Improving the alternatives to the car: improving public transport, facilities for cyclists, and encouraging the shared use of vehicles. In freight transport this means improving rail and waterway facilities and encouraging the use of combined transport modes.
4. Offering selective accessibility: each transport axis will be reviewed in relation to the Netherlands' transport and distribution function to decide what expansion of infrastructure is needed (road, water, rail, air). Road infrastructure will be reviewed to determine the scale on which special facilities for freight traffic are required. Priority will be given to the hinterland connections in the allocation of resources.
5. Strengthening the foundations: reinforcing the pillars that are essential for traffic and transport e.g. public communications, inter-authority cooperation, financing (funding structures), enforcement and research.

NORWAY

Adopting specific targets related to sustainable development and then seeking the most cost-efficient ways to reach them.

Introducing environmental taxes and other economic instruments which internalize environmental and other external costs.

Exploring the possibility of introducing fiscal reforms balancing a decrease in labour taxation and an increase in the taxation of natural resource use and pollution.

Revising the system of regulatory instruments according to changes in planning

and economic instruments.

Developing land use planning legislation and practice, e.g. through guidelines for integrated land use and transport planning and EIA procedures.

ROMANIA

Conformément à la législation de notre pays, qui est en train d'être harmonisée avec la législation internationale, la pollution de l'environnement consiste en ces actions-là qui peuvent produire la rupture de l'équilibre écologique ou nuire à la santé, ou provoquer des dommages à l'économie mondiale par la modification de la qualité des facteurs naturels ou créés par des activités humaines.

L'influence nocive du transport sur l'environnement se manifeste sous diverses formes, avec diverses intensités, en fonction de la région géographique et des types de modes de transport (ferroviaire, routier, maritime, fluvial, aviation, conduites, transport combiné).

Généralement, dans le processus de transport l'impact sur l'environnement agit négativement sur la pollution de l'atmosphère, de l'eau, du sol, et par un niveau élevé du bruit.

Ainsi que:

- le transport naval (maritime et fluvial) intervient avec des facteurs nocifs accentués, surtout dans la pollution de l'eau, et avec des influences plus réduites dans la pollution de l'atmosphère et du sol.
- le transport routier (urbain, suburbain, interurbain) affecte intensément l'environnement, surtout par la pollution de l'atmosphère par le niveau élevé du bruit, la pollution du sol et les vibrations.
- le transport aérien affecte l'environnement surtout par la pollution de l'atmosphère, par le niveau élevé du bruit.
- le transport ferroviaire - le moins nocif - affecte l'environnement par la pollution atmosphérique et le bruit.

Dans ce contexte, le Gouvernement de la Roumanie est préoccupé de limiter les diverses formes d'impact des modes de transport sur l'environnement et envisage d'appliquer les réglementations internationales existantes concernant les substances polluantes et la pollution sonore.

SLOVENIA

Act on the protection of the environment.

National programme of the protection of the environment (in preparation).

The above-mentioned act is harmonized with European prescriptions. From this Act results the ecological standards and other measures either already adopted or in preparation. They will resume the European standards of the developed countries. The national programme will deal especially with transport and its impact on the environment.

SWEDEN

Work on the environmental problems of the transport sector forms part of a holistic philosophy laid down by the Swedish Riksdag.

Different sectors of society must help to create an environmentally adapted society as a whole. It is, however, the responsibility of the sector to indicate and endeavour to introduce changes which produce results.

This "sectorial principle" was already laid down in 1991. To our knowledge, Sweden is the only country in Europe which is working in this way.

Environmental targets balanced against other sectors have therefore been developed for the transport sector, just as for other sectors of the community (see question 17).

Annual environmental impact assessments for each mode of transport and for the sector as a whole serve to clarify the measures which need to be taken through policy decisions by the Government or Riksdag.

Generally speaking, environmental policy is not subordinated to any other policy - economic policy, for example - but in reality balances are struck which give the lead to economic policy.

Recent years, however, have brought a gradual change.

Several examples can be quoted.

All environmental measures have to be valued with reference to socio-economic calculations, and the social costs of traffic have been widely analysed in recent years.

As a result of these factors, environmental problems today are valued more highly, economically speaking, and taxation has been considerably increased for environmental reasons. This is most clearly reflected by the high price of petrol in Sweden and by the environmental profile of the big infrastructure programmes, e.g. favouring large railway developments during the 1990s.

The Riksdag and Government have also taken the initiative in investigating "green taxation" and the possibilities of tax redeployment. Taxation in future may come to concentrate on consumption, and especially consumption particularly dangerous to the environment, and less on labour. In the long term, this will have a great effect on the transport sector. Tax on the individual person's work is being reduced, but the tax on fuel and car use may come to be increased. A special Government Commission is studying these points.

SWITZERLAND

Il existe un certain nombre de documents d'orientation qui ont fixé des lignes directrices pour concilier les objectifs environnementaux et de développement.

L'on citera principalement le rapport du Conseil fédéral sur le programme de la législature 1987-1991 dans lequel la "croissance qualitative" apparaît comme principe directeur.

Ce principe se répercute également dans les objectifs de la politique suisse des transports, puisqu'elle doit contribuer autant que possible à la qualité de la vie et à une croissance qualitative, tout en satisfaisant les besoins de transport essentiels. Cela signifie en particulier que:

- les transports doivent être efficaces, respectueux de l'environnement, économies en matière énergétique et nécessiter un minimum d'espace.
- le développement des modes de transport doit être coordonné.
- l'équilibre financier des transports doit être amélioré et leur subventionnement direct ou indirect doit diminuer.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

A great number of projects on environment has been planned by the Government. One of the projects is "A Sustainable Development of Transport and Environment". The first phase of this project is reconciliation with the international targets (regulations).

TURKEY

In compliance with sustainable development goals for the reduction of pollution caused by transport, Turkey aims to stay in touch with development in the European Community and put into force her plans in time.

Also, according to the transport policies of Turkey, transport will be arranged in such a way that social, cultural and ecological structure will be protected, environmental pollution will be prevented and intersectoral economic balance will be provided.

Replies to Question no. 17

CZECH REPUBLIC

The intentions of the Government are declared in the document "Strategy of transport policy of the Czech Republic for the nineties", applying the principle of responsibility for the damages caused by persons. Principles ensuring the acceptability of the transportation system from the point of view of population health and environmental protection are under preparation. The necessary measures concern mainly:

Fields of investment having as the main goal environmental protection, limitation of negative factors of transportation and preferences of electric traction.

Promotion of installing integrated transport systems (ITS).

Support of environmentally favourable transport means production - untraditional drives, reduction of energy demand.

Removal of environmentally defective transport, particularly in cities, use of means of territorial planning, project of both the reconstruction and building of communications systems for support of non motorized transport.

Support of combined transport development in both domestic and international transport - assumption of government participation on realization of individual programmes, and on tax reduction.

Solution for the problems connected to high frequency transport sections with considerable air pollution - support of both the monitoring and information system - transport limit condition.

The Czech Republic takes part in ECMT activities; in this framework adequate measures are established and coordinated e.g. in the sphere of stabilization and reduction of CO₂ emissions from transport. etc.

DENMARK

In the Danish Transport Action Plan from 1990, the following targets were decided:

Stabilization of total CO² emissions at the 1988 level by the year 2005, to be followed by a 25 per cent reduction up to the year 2030.

A reduction of NO_x and HC emissions by at least 40 per cent before the year 2000, a reduction of 60 per cent before the year 2010, and a further reduction in the period up to the year 2030.

A halving of particle emissions in towns and cities in the period up to the year 2010 and a further reduction by 2030.

A maximum possible reduction in noise levels in dwellings exposed to more than 55 dB, so that by 2010 not more than 100,000 dwellings are exposed to a

noise level of more than 65 dB.

A reduction in other environmental problems.

FRANCE

La loi no. 92-1444 du 31 décembre 1992 sur la prévention contre le bruit stipule (titre 1, chapitre 1er: Transports terrestres): "Dans un délai d'un an à compter de la publication de la présente loi, le Gouvernement présentera au Parlement un rapport établissant l'état des nuisances sonores résultant du transport routier et ferroviaire et les conditions de leur réduction.

Ce rapport comportera une évaluation des travaux nécessaires à la résorption des points noirs et à la réduction de ces nuisances à un niveau sonore diurne moyen inférieur à soixante décibels. Il présentera, en outre, les différents modes de financement envisageables pour permettre la réalisation des travaux dans un délai de dix ans".

Le Gouvernement français s'est engagé en signant différents accords internationaux, à réduire ses émissions polluantes dont celles dues aux transports:

- Convention de Genève sur la pollution atmosphérique transfrontalière à longue distance et ses protocoles d'application relatifs aux émissions de SO₂, NO_x et COV.
- Convention de Rio sur le changement climatique.

FINLAND

See Question no. 16.

GERMANY

A

En ce qui concerne les marchandises particulièrement dangereuses, il existe depuis 1970 en Allemagne des obligations prévoyant d'une part l'utilisation prioritaire du "chemin de fer" et du "bateau" en tant que moyens de transport sûrs et respectueux de l'environnement et d'autre part la détermination préalable de l'itinéraire dans les cas où des transports routiers s'avèrent toutefois nécessaires.

Transport by air:

According to a Directive of the Council of the European Communities (92/14/EEC) civil subsonic jet aircraft which only meet the requirements of ICAO-Annex 16, Vol. I, Chapter 2 (ICAO, International Civil Aviation Organization) have to phase out from 1 April 1995 to 31 March 2002 in the member States of the European Communities. This means that from 1 April 2002 only civil subsonic jet aircraft which meet the stricter noise limits of ICAO-Annex 16, Vol.I, Chapter 3 may be operated in the member States of the

European Communities. Exemptions exist for certain aircraft in the developing world.

ITALY

See Question no.16

LIECHSTENSTEIN

A/P

Reduction of CO², SO², NO_x and VOC according to the Geneva Convention and its protocols or the Vienna Convention and the Montreal Protocol.

Keeping the CO² emissions until the year 2000 on the level of 1990 and then lowering the emissions substantially

No production of VOC from 1995 on, no import and use of VOC starting 1997. Both in connection with Switzerland.

NO_x: lowering of emissions to 20-30 per cent.

MALTA

The Government is still in the stage of formulating policies regarding this subject.

NETHERLANDS

The targets for private cars are indicated in the table below.

Target, privat cars	Reference year 1986	Objective 2000	Objective 2010
Car-km (index)	100	130	135
NO _x <u>1/</u>	163	40 (-75%)	40 (-74%)
Hydrocarbons <u>1/</u>	136	35 (-75%)	35 (-75%)
CO ₂ <u>2/</u>	23	23 (0)	20.7 (-10%)
Car noise <u>3/</u>	80	74	70

1/ NO_x and hydrocarbons in thousands of tonnes per year. Percentages of NO_x and hydrocarbons relative to 1986.

2/ Target for road traffic from Policy Department Document on Climate Change. CO₂ in millions of tonnes.

3/ Type approval limits for noise emitted by vehicles in dB(a).

The targets for freight transport are indicated in the table below

Target, freight transport	Reference year 1986	Objective 2000	Objective 2010
Lorry-km (index)	100		140 <u>1/</u>
NO _x <u>2/</u>	122	72 (-35%)	25 (-75%)
Hydrocarbons <u>2/</u>	46	30 (-35%)	12 (-75%)
CO ₂ <u>3/</u>	23	23 (0)	20.7 (-10%)
Noise from lorries, buses <u>3/</u>	81-80	75-80	70

- 1/ This is an indicative goal taken from the Government's response to the Second Environment Outlook, rather than a target.
- 2/ NO_x and hydrocarbons in thousands of tonnes per year. Percentages of NO_x and hydrocarbons relative to 1986.
- 3/ Target for road traffic from Policy Department Document on Climate Change. CO₂ in millions of tonnes.
- 4/ Type approval limits for noise emitted by vehicles in dB(A).

NORWAY

Norway has signed the Second Sulphur Protocol which requires a reduction of SO₂ emissions by 76 per cent compared to 1980 levels.

Norway has ratified the Sofia Protocol and shall stabilize national emissions of nitrogen oxides by 1994, using 1987 as the base year.

ROMANIA

La stratégie de la protection de l'environnement en transport fait valoir l'orientation des efforts en vue de diminuer l'impact nocif des transports sur l'environnement.

Les objectifs principaux de la stratégie de la protection de l'environnement sont les suivants:

- a) pour la période 1994-1997
 - l'accélération de l'harmonisation de l'activité des transports avec les normes européennes et internationales prévues dans les conventions et réglementations en vigueur, pour les moyens de transport aussi bien que pour l'infrastructure des transports;
 - la restructuration du management dans les transports en vue d'assurer l'organisation des transports en observant la législation de protection de l'environnement (training,

autorisation des managers et des spécialistes, règlement des évènements conflictuels internes et internationaux);

- l'amélioration des véhicules et des équipements existants;
- le contrôle permanent, par des organismes autorisés par l'Etat dans le domaine des transports (Le Registre Naval Roumain, le Registre Auto Roumain, l'Administration Nationale des Routes, le Registre Ferroviaire Roumain, l'Autorité de l'Aviation Civile Roumaine), en ce qui concerne l'observation des réglementations internes concernant les limites admissibles des polluants.

b) pour la période 1998-2000:

- l'accès exclusif des moyens de transport autochtones et étrangers qui observent les réglementations écologiques de l'Union européenne à l'infrastructure des transports de la Roumanie;
- diriger les efforts financiers en vue d'assurer des conditions écologiques optimales pour raccorder l'infrastructure roumaine des transports à celle de l'Union européenne.

SWEDEN

The Swedish Environmental Protection Agency suggested the following targets on five of the 13 environmental issues:

Climatic change: stabilisation of CO₂ emissions to the 1990 level in the year 2000, and then further reduction. Emissions of other gasses should be reduced and no negative influence from air traffic in high altitude should appear.

Depletion of the ozone layer: the general objectives are fulfilled for the transport sector.

Acidification: Emissions of sulphur are to be reduced 80 per cent from 1980 to 2000. Emissions of NO_x are to be reduced 30 per cent from 1980 to 1995 and further after year 2000.

Ground level ozone and photochemical oxidants: the emissions of VOC are to be reduced 60 per cent from 1988 to year 2000.

Air pollution and noise in urban areas: the limits set by the Swedish Environmental Protection Agency for CO, NO₂, SO₂, particles and soot are not to be exceeded in the year 2000. Emissions of cancer-causing compounds are to be halved in the year 2005. The limits suggested for noise are not to be exceeded in the long term.

The government has decided that these targets should be in force the years to come. A revision is also undertaken at the moment.

Every year the transport sector also has to work out annual reports and include judgements as to how the targets are to be fulfilled.

The introduction of targets in the transport sector has given the government a possibility to judge how effective different introduced measures have been.

As indicated in "General comments" the targets are not fulfilled at the moment.

One important conclusion government has drawn is that a broad approach must be used to solve the environmental impacts from the transport sector.

SWITZERLAND

Généralités

La Suisse, de par sa situation géographique au centre de l'Europe, est un pays de transit. De par sa topographie difficile (étroitesse des vallées alpines), elle a dû très tôt rechercher des solutions spécifiques pour sauvegarder l'éco-système des Alpes. Compte tenu de la saturation croissante des axes de transit routier et des nuisances environnementales que ce développement a induit, il s'est avéré impossible de continuer à développer les capacités de ce mode de transport.

Dès lors, afin d'offrir une alternative efficace au transport routier et de concilier le développement économique avec la protection de l'environnement, la Suisse a axé sa politique des transports sur l'amélioration de l'infrastructure ferroviaire (détail des mesures prévues: voir point 23).

Nouvel article constitutionnel 36 sexies

En outre, le 20 février 1994, le peuple suisse a accepté le nouvel article constitutionnel 36 sexies qui vise à protéger la zone sensible alpine contre les effets négatifs du trafic, d'une part en renonçant à augmenter les capacités des routes de transit et, d'autre part, en transférant le trafic de frontière à frontière sur le rail dans un délai de 10 ans.

La loi sur le transit routier dans l'Arc alpin stipule que les capacités des axes suivants ne doit plus être augmentée:

- St-Bernardino, de Thusis à Bellizone Nord;
- Axe du Gothard, sur le tronçon Amsteg-Göschenen-Airolo-Bellinzona Nord;
- Simplon, sur le tronçon Brigue-Gondo/Zwischbergen (frontière)
- Grand St-Bernard, sur le tronçon de Sembrancher jusqu'au nord du tunnel.

En ce qui concerne la concrétisation de l'objectif stratégique de transfert de la route au rail, le Conseil fédéral a fixé les principes suivants:

- moyens relevant de l'économie de marché;
- prise en compte des coûts de transport;

- non-discrimination;
- respect des engagements internationaux pris par la Suisse, notamment dans l'Accord de transit;
- coopération étroite avec les partenaires européens de la Suisse.

Afin de respecter le principe de non-discrimination, chaque camion qui franchira l'un des quatre passages mentionnés dans la loi sur le transit routier sera pris en considération. Tous les types de transports (transit, import, export et trafic intérieur) seront donc traités de façon équivalente.

Le transfert sur le rail s'effectuera au moyen d'un paque et mesures que l'on peut résumer comme suit:

- La redevance poids lourds proportionnelle aux prestations doit être considérée comme le fondement de cet ensemble de mesures. Le peuple suisse a clairement approuvé la base constitutionnelle à cet effet le 20 février 1994. Celle-ci sera concrétisée dans une loi fédérale. Le projet destiné à la mise en consultation sera disponible durant l'été 1995. L'objectif est de réaliser la vérité des coûts du trafic lourd.
- Le deuxième élément de ces mesures consistera en une taxe, de nature incitative, frappant l'utilisation des quatre axes de transit précités. Les rapports prix-prestations du rail et de la route devront être équilibrés afin d'obtenir le transfert escompté.
- Le programme de promotion du trafic combiné représente le troisième élément des mesures envisagées. Le trafic lourd qui emprunte les quatre axes de transit à travers les Alpes suisses, doit être transféré sur le rail et non sur les routes des pays limitrophes. Le rail et, en particulier, le trafic combiné transalpin doit être encouragé et rendu attrayant par des mesures appropriées, en collaboration et coordination avec les pays voisins. Une contribution importante sera fournie avec la réalisation de Rail 2000 et de la NLFA.

Ordonnance sur la protection de l'air

Comme nous l'avons déjà mentionné ci-dessus, afin de réduire le niveau général de pollution, l'Ordonnance sur la protection de l'air a pour objectif de réduire le niveau général de pollution. En la matière, elle fixe les buts suivants:

- en tant qu'objectif maximal: ramener les émissions d'anhydride sulfureux (SO_2) en 1990 au niveau qui était le leur en 1950;
- en tant qu'objectif minimal, ramener les émissions d'oxyde d'azote et d'hydrocarbures en 1995 au niveau qui était le leur en 1960.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

The Government has established specific targets on the reduction of environmental impact of the transport sector as a whole. An import of cargo transport facilities older than 5 years as well as passenger vehicles older than 3 years has been forbidden by a special Decision of the Government.

TURKEY

Generalization of the usage of unleaded gasoline.

Inspection of old age cars and inspection of stations regularly for the effective pollution control.

Revision of existing standards and regulations according to EC norms.

Taking measures concerning the fuels used by vehicle by reducing lead level in gasoline and sulphur in diesel oil.

Adaptation and implementation of other countries (e.g. EC countries) rules and regulations.

Replies to Question no. 18

CZECH REPUBLIC

In the framework of the "Programme of the stabilization and reduction of CO₂ generation in the Czech Republic" (elaborated by the Transport research Centre (CDV), Brno) a set of measures for the transport sector as a whole has been elaborated.

Road Vehicles

The research and application of vehicles with electrical and combined propulsion, which are applicable preferably in urban transport has found wide support. There is a preference to use the public transport prior to individual cars. The public transport vehicles, propelled by alternative fuel, bio-oil and gas are introduced.

Rail

Regulation FISCHE UIC (EERI) 623 which determined limit values of the gas specific emissions of the harmful substances, is applied for Diesel locomotive emissions. This regulation is binding for UIC member States and it is valid since January 1993. CO₂ emissions reduction of Diesel locomotives is foreseen but 50 % in the period 1990-2000.

FRANCE

La France applique la réglementation élaborée par:

- La Communauté européenne
- La Commission économique pour l'Europe (Accord de 1958 relatif à la construction des véhicules).

FINLAND

U

No technical requirements to reduce energy consumption. The aim of the Finnish Energy Conservation programme (1992) is, among other things, to cut the energy consumption of the transport sector from the 1990 level with 10 % by the year 2005. Standards reducing the energy consumption of vehicles will be developed in international cooperation.

A

Use of SLD in heavy duty vehicles is compulsory.

A

Research seeks to ascertain how transport and passenger transport can be handled with the smallest possible consumption of energy whilst minimizing harmful emissions. Promoting the use of alternative fuels, improving the environmental quality of conventional motor fuels and introducing new low-

emissions heavy urban vehicles are some of the objectives of the ongoing research.

GERMANY

Directive 85/210/CEE - dans une mesure limitée:

- Teneur de benzène dans l'essence à 5 Vol. %
- Teneur de plomb dans l'essence sans plomb à 0,013 g/l
dans l'essence normale avec plomb à 0,15 g/l

A

En vigueur en Allemagne depuis le 1.10.1989. Parallèlement à la promotion du catalyseur à partir de 1985, l'Allemagne a également introduit des compensations fiscales sur les prix de l'essence sans plomb. La part de l'essence normale avec plomb est interdite.

Directive 87/219/CEE - dans une mesure limitée:

- Teneur en soufre dans le gasoil à 0,3 Vol. %
Directive 93/12/CEE - dans une mesure limitée
- Teneur en soufre dans le gasoil à 0,05 Vol. % à partir du 1.10.1996

Limiteur de vitesse pour poids lourds.

Air transport:

In the Federal Republic of Germany aircraft have to meet the requirements laid down in the German noise certification regulations entitled "Lärmschutzforderungen für Luftfahrzeuge (LSL)". Aircraft which comply with these regulations meet the Standards and Recommended Practices of ICAO-Annex 16, Vol. I "Aircraft Noise" (2nd edition 1988), (ICAO, International Civil Aviation Organization).

New subsonic jet aeroplanes and propeller-driven aeroplanes exceeding 9000 kg maximum take-off weight (MTOW) have to meet the requirements laid down in Chapter III od LSL. New propeller-driven aeroplanes not exceeding 9000 kg MTOW and powered gliders have to meet the requirements laid down in Chapter X of LSL. Helicopters have to comply with the requirements of Chapter VIII of LSL.

ITALY

Adoption of the Directive CEE 93/116 on the energy consumption of vehicles, amending Directive 80/1268.

LIECHSTENSTEIN

U

Tax on CO₂ and/or energy.

NETHERLANDS

A

Speed limitation devices are mandatory on new heavy goods vehicles and buses since 1 January 1994, and will become mandatory on in-use heavy goods vehicles by 1 January 1995.

A

The EC-directive on the method of measuring fuel consumption is applied for sales promotion purposes by industry on a voluntary basis.

A

Research on future engines, mass reduction, improved aerodynamics etc. is mainly carried out by industry, sometimes sponsored by the Government or in cooperation with independent research institutes.

U

So far no requirements concerning energy consumption of motor vehicles have been introduced in the Netherlands. The best way to proceed is still under consideration. Much will depend on the proposals we are expecting from the European Commission.

U

Econometers are considered a helpful means of improving driving behaviour, but so far no attempts have been made to promote their installation. Research is going on as to their potential effects.

Alternative fuels, such as bio-diesel or bio-ethanol are at present, and for the short term, not considered the solution to the problem of climate change. LPG and natural gas offer less CO₂ emissions per kilometre, but have the disadvantage of high fixed and low variable cost, and therefore encourage high annual milage.

NORWAY

A

A CO₂ tax introduced in 1991 is at present the only measure especially implemented to limit CO₂ emissions. As part of the annual State Budget the Parliament (Stortinget) adopted the following CO₂ taxes for 1994:

- gasoline	0,82 NOK/litre
- diesel	0,41 NOK/litre
- combustion of gas connected to extraction of oil and gas	0,82 NOK/litre

- mineral oil	0,41 NOK/litre
- coal and coak	0,41 NOK/litre

A

The Ministry of Transport will in 1994 spend approximately 11 millions NOK on projects investigating the possibilities of using alternative fuels. The total R&D budget of the Ministry is 73 millions NOK.

ROMANIA

La Roumanie a adhéré aux principales dispositions et normes internationales portant sur la protection de l'environnement par les sources stationnaires et par les moyens de transport routier, ferroviaire et aérien.

La Roumanie a adhéré au Protocole conclu à Montréal et à la Convention de Vienne, par la loi no. 84/1994.

SLOVENIA

Application of ECE REGulations nos.84 and 85.

SWEDEN

The Swedish Consumers Board annually monitors the average fuel efficiency of new cars. The board has tried to reach an agreement with the car manufacturers that aimed to increase the fuel efficiency of new cars, but their attempts failed. Such an agreement was reached by the Transport Council and the manufacturers in the early eighties.

The gasoline price has been sharply increased during the last few years, mainly for fiscal reasons.

The Government sponsors two major fleet programmes aimed at improving the knowledge on alternative technologies and introducing such vehicles in daily traffic. One of these programmes concerns alternative fuels and the other electric and hybrid vehicles. Private companies and independent authorities take part in both programmes, for example by buying and using the vehicles.

SWITZERLAND

En Suisse, il n'y a pas de prescriptions spécifiques visant à limiter la consommation de carburant.

Dans le cadre des mesures prévues pour la revitalisation de l'économie, le Conseil fédéral a entre autres pris la décision d'adapter au droit de l'UE, d'ici le 1er octobre 1995, les prescriptions suisses concernant la construction et l'équipement des voitures de tourisme, des véhicules utilitaires et des bus, y compris d'éventuelles futures prescriptions sur des mesures d'économie d'énergie. Dès que l'UE édictera des prescriptions sur la

consommation, la Suisse les appliquera aussi.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

The Government has established a special Act on the limits of air pollutants and noise emissions of vehicles according to international regulations (ECE 15-04).

Bearing in mind that in our country there is no production of internal combustion engine, we could not control the application of modern technical and technological methods in their production.

TURKEY

In Turkey, advanced technologies such as electrical vehicles, alternative fuels and improved research on future engines have been attempted to be followed from developed countries such as the United States of America, Germany, Japan, etc.

Replies to Question no. 19

CZECH REPUBLIC

Road Vehicles

Basic principles, processes and measures are regulated by the "Act on conditions for motor vehicles operation on roads" No. 41/84 and No. 248/91. It contains e.g. practical prohibition of production and import of vehicles without controlled catalytic converters.

Limit of lead contents in petrol, limits of air pollution and noise. Unleaded fuel is at present available without problems.

Exemption of vehicles with catalytic convertors from the road tax payment has slightly stimulating effect to promote application of such devices (it is valid until the end 1995 for motor vehicles, which meet Regulations ECE nos. 49 and 83).

Fuels

The quality of the fuel is continuously improved. The content of lead in petrol was decreased and also content of sulphur in diesel oil decreases. The production and using of alternative fuels increases, especially bio-petroleum, natural gas, etc. There is no preference in pricing policy for lead-free petrol.

DENMARK

Due to tax-regulation, which gives incentives to use unleaded petrol, nearly all passenger cars in Denmark use unleaded petrol.

FRANCE

La France applique:

1. En ce qui concerne les émissions polluantes

- les directives et règlements de la Commission européenne relatifs aux mesures contre la pollution de l'air par les émissions des véhicules à moteur (à essence et diesel)
- directive 70/220 modifiée en dernier lieu par la directive 94/12.

Le règlement no. 83 de l'Accord de 1948 également appliqué par la France est aligné sur cette directive.

- directive du 1.10.1991 modifiant la directive 88/77.

Le règlement no. 49 de l'Accord de 1958, également appliqué par la France est aligné sur cette directive.

2. En ce qui concerne le niveau sonore des véhicules à moteur

- la directive 92/97 du 10.11.1992 modifiant la directive 70/157 concernant le niveau sonore admissible et le dispositif d'échappement des véhicules à moteur.

FINLAND

New passenger cars must meet the US'87 norm. The share of these cars in the whole fleet is however only 17 per cent. New light commercial vehicles must meet the US'91 norm, new heavy vehicles must comply with the EURO 1 regulations.

Unleaded petrol has been available since 1988 and from mid 1994, only unleaded petrol has been sold. The fuel tax on leaded petrol was about 20 per cent higher than on unleaded, which certainly was an important factor guiding the consumers behaviour.

So-called reformulated petrol, which has lower volatility and contains more oxygen and less benzene compared with conventional products came on the market in 1991. The second generation of reformulated petrol (benzene less than 1 per cent and sulphur less than 0,01 per cent) was introduced in 1994.

The maximum sulphur content in diesel fuel is 0,2 per cent (0,1 per cent proposed limit). Diesel fuel with extremely low sulphur content (< 0,005 per cent) has been available since 1993. Its market share is around 60 per cent. Reformulated diesel gets a tax relief, which is 0,15 FIM/l.

GERMANY

Voitures particulières

Directive sur les gaz d'échappement 91/441/CEE (impose le catalyseur à trois voies).

- à partir du 1.7.1992 pour les nouvelles homologations de type;
- à partir du 31.12.1993 pour l'immatriculation de véhicules neufs.

Directive sur les gaz d'échappement 94/12/CEE (impose le catalyseur à trois voies)

- à partir du 1.1.1996 pour les types neufs;
- à partir du 1.1.1997 pour l'immatriculation de véhicules neufs.

Poids lourds < 3,5 t

Directive sur les gaz d'échappement 93/59/CEE

- à partir du 1.10.1993 pour les nouvelles homologations de type;

- à partir du 1.10.1994 pour l'immatriculation de véhicules neufs.

Poids lourds > 3,5 t

Directive de l'UE sur les gaz d'échappement 91/542/CEE

- types neufs: EURO I à partir du 1.7.1992, EURO II à partir du 1.10.1995;
- immatriculation de véhicules neufs: EURO I à partir du 1.10.1993, EURO II à partir du 1.10.1996.

Directive sur le bruit 92/97/CEE

Niveau sonore autorisé pour véhicules à moteur

- à partir du 1.10.1995 pour les nouvelles homologations de type;
- à partir du 1.10.1996 pour l'immatriculation de véhicules neufs.

ITALY

Adoption of Directives CEE 91/441, 91/542, 93/59 and 94/12 as well as ECE Regulations Nos.49 and 83. Obligation of catalytic converters and "green" fuel. Possibility of restriction of private traffic.

NETHERLANDS

Type approval requirements gaseous and noise emissions

Gaseous emissions

All type approval requirements are the result of Community regulations on the basis of total harmonisation, meaning that all member States - thus including the Netherlands - have to implement these regulations in their national legislation without the possibility of derogation.

A

Light motor vehicles (petrol and diesel) have to comply with the regulations of Directive 88/77/EEC, as amended by Directive 92/12/EC.

A

Heavy motor vehicles (diesel) have to comply with the regulations of Directive 88/77/EEC, as amended by Directive 91/542/EEC. Concerning the emissions of black smoke this category of vehicles also has to comply with the regulations of Directive 72/306/EEC.

Noise emissions

All national type approval limit values are also a result of Community regulation, as mentioned above.

A

Light and heavy motor vehicles have to comply with the regulations of Directive 70/157 EEC, as amended by Directive 92/97/EEC.

Fiscal incentives

U

The legal basis for fiscal incentives for the introduction of cleaner cars is stated in article 3 of Directive 94/12/EC as mentioned above. The scope of this article is narrowly defined: incentives can only be applied for cars that meet the type-approval requirements that become mandatory in 1996. Dutch investigations concerning in-use compliance however indicate that the greater part of the new vehicles that are presently sold already meet those requirements. In the opinion of the Dutch Government the relevant directive's provisions should be modified, thus enabling the stimulation of cars that meet even stricter emission standards than mentioned above.

Use of catalytic convertors and availability of unleaded fuel

A

The use of catalytic convertors is the result of implementation of the strict European emissions standards (see above).

A

The availability of unleaded fuel is guaranteed by the member States as stated in Directive 85/210/EEC. At present 70 to 80 per cent of the petrol sold in the Netherlands is unleaded and is more widely available than leaded fuel.

Fuel quality improvement

A

Anticipating the introduction of low-sulphur diesel-fuel, the Dutch Government stimulates the introduction of such fuel within the limits of this directive.

P

The use of low sulphur diesel-fuel will be mandatory from October 1996 as stated in Directive 75/716/EEC, as amended by Directive 93/13/EEC.

NORWAY

A

Emissions from new vehicles are regulated as follows:

passenger cars - petrol: US LDV 1993 since 89.01.01 and 90.10.01;

passenger cars - diesel: US LDV 1987 since 90.10.01;

light trucks: US LDV 1990 since 92.10.01;

heavy trucks and most buses: EU 91/542 A-level since 93.10.01 (B-level from 96.10.01).

The US-limits are from 93.12.18 formally replaced by almost similar standards in EU directives 91/441 and 93/59 as a consequence of the EEA-agreement.

Rail transport has negligible emissions because most Norwegian trains are driven by hydroelectric power.

Emissions from air transport are regulated according to ICAO-agreements. The replacing of Chapter II planes by new so-called Chapter III aircrafts by 2002 will mean considerable reductions in HC and CO emissions.

Concerning maritime transport Norway is a Party to the IMO/MARPOL 73/78 Convention under which a new Air Pollution Annex is now being worked out. Norway has ratified the following MARPOL 73/78 Annexes:

Annex I Regulations for the prevention of pollution by oil.

Annex II Regulations for the control of pollution by noxious liquid substances in bulk.

Annex III Regulations for the prevention of pollution by harmful substances carried by sea in packaged forms, or in freight containers, portable tanks or road and rail tank wagons.

Annex V Regulations for the prevention of pollution by garbage from ships.

ROMANIA

Les véhicules routiers sont homologués individuellement et suivant les types, à moins qu'ils respectent totalement les prévisions des conventions CEE/ONU et les règlements en annexe.

Une décision gouvernementale portant sur l'interdiction des importations en Roumanie des véhicules plus vieux de 8 ans a été approuvée et est en vigueur.

L'acquisition des aéronefs nouveaux est faite à moins que ceux-ci soient conformes aux prescriptions ICAO en ce qui concerne le volume de bruit.

Une décision gouvernementale sur la licence des transports de marchandises dangereuses est en vigueur. Sur la base de celle-ci les transports de cette catégorie peuvent être effectués seulement par des agents économiques licenciés par un organisme du ministère des transports.

SLOVENIA

Prohibition of importing and selling vehicles not equipped with catalytic converters.

Obligation of type approval of vehicles for emission exhaust gases depending on the type of fuel used.

Quality requirements for fuels as regards sulphur, lead and benzene content are being elaborated.

ECE Regulation applied: Nos. 15, 24, 40, 41, 47, 49, 51, 63 and 83.

SWEDEN

Due to a substantial tax difference, there is no leaded gasoline for cars on the Swedish market. From 1995 sale of leaded gasoline will be banned.

New cars and lorries can be certified into three different environmental classes.

Class 3 meets basic requirements and the classes 2 and 1 more stringent emission limits. Sale of cars in cleaner classes is promoted by tax incentives (lower sales tax).

Gasoline will in the near future be divided into two environmental class. The cleanest grade, class 2 will contain lower amounts of substances toxic to the catalytic converter than the current grade, class 3. A minor tax difference (0.06 SEK/l) will cover the difference in manufacturing cost.

International problems:

The Swedish system with environmental classes for cars differs from the EC system. Testing procedures differed previously, but from 1995 Sweden will accept EC certificates. Cars meeting present and decided EC limits will be classified as classes 3 and 2 respectively.

However, there is no EC standard corresponding to the stricter class 1 for cars. Thus, if Sweden enters the Union, the current tax incentive for such cars, a lower sales tax, has to be abolished.

Rules for lorries are similar to those of the EC.

For all types of cars and lorries Sweden has durability requirements, i.e. the emission level has to be kept during the whole lifespan of the cars. This is combined with a manufacturer's responsibility. If the car - or the lorry - fails within a certain driven distance or before it reaches a certain age, the manufacturer has to cover the cost to adjust the equipment. The individual vehicle might fail during annual inspections. Whole motor families might fail during a special recall test. The European Community has no such rules.

SWITZERLAND

Dans le cadre des mesures pour la revitalisation de l'économie, le Conseil fédéral a notamment décidé le 30 juin 1994 d'adapter, d'ici au 1er octobre 1995, les prescriptions suisses concernant la construction et l'équipement des voitures de tourisme, des véhicules utilitaires et des bus, y compris les prescriptions sur le bruit et les gaz d'échappement.

Les prescriptions actuelles concernant le bruit par les véhicules routiers figurent à l'annexe 4 de l'ordonnance du 27 août 1969 sur la construction et l'équipement des véhicules routiers (annexe 11). Pour les véhicules à moteur, la mesure de référence se fait lors du passage du véhicule; les bruits de l'échappement d'air sont aussi mesurés.

Le mesurage avec véhicule en marche correspond en principe aux règlements ECE-R 41 (motocycles), ECE-R 51 (voitures automobiles) et ECE-R 63 (cyclomoteurs). Les valeurs limites suisses pour la pression sonore sont cependant plus basses. Pour les motocycles, cela a un effet aggravant, étant donné que leur bruit est mesuré uniquement avec la seconde vitesse aux trois quarts du régime maximum, indépendamment de la vitesse atteinte.

Les exigences quant aux carburants des véhicules autorisés en Suisse sont consignées dans l'ordonnance sur la protection de l'air (Opair). Ainsi, depuis le 1er juillet 1986, l'essence normale ne peut être commercialisée que si elle ne contient pas de plomb. Depuis le 1er janvier 1994, l'huile diesel ne peut être importée que si sa teneur en souffre ne dépasse pas 0.05 %. Ces carburants sont disponibles sur tout le territoire suisse.

Les véhicules dotés de moteur à auto-allumage doivent faire l'objet d'un mesurage de la fumée en pleine charge et en cours d'accélération, conformément aux exigences du règlement ECE-R 24, de la directive 72/306/CEE ou de la directive 77/537/CEE (uniquement pour les véhicules lents).

Des prescriptions supplémentaires concernant les émissions sont applicables à certaines catégories de véhicules.

- Pour les voitures automobiles légères (poids global inférieur ou égal à 3500 kg) et dont la vitesse dépasse 50 km/h, les exigences relatives aux émissions de gaz d'échappement et de vapeur sont définies dans l'ordonnance du 22 octobre 1986 sur les émissions de gaz d'échappement des voitures automobiles légères (OEV 1) (annexe 12).
- Les procédures de mesurage et les valeurs limites correspondent aux prescriptions américaines (état de 1983), ainsi qu'à celles de 1987 pour les véhicules avec moteurs à auto-allumage.
- Pour les voitures automobiles lourdes (poids global supérieur à 3500 kg) dotées de moteurs à auto-allumage et dont la vitesse maximale dépasse 30 km/h, les exigences concernant les émissions de gaz d'échappement sont définies dans l'ordonnance du 22 octobre 1986 sur les émissions de gaz d'échappement des voitures automobiles lourdes (OEV 2) (annexe 13).

La procédure de mesurage et les valeurs limites concordent avec le règlement ECE-R 49 et avec la directive 88/77/CEE.

- Pour les motocycles dotés de moteurs à allumage par appareillage externe, les exigences concernant les émissions de gaz d'échappement sont définies dans l'ordonnance du 22 octobre 1986 sur les émissions de gaz d'échappement des motocycles (OEV 3).

La procédure de mesurage correspond au règlement ECE-R 40, mais avec des valeurs limites plus sévères.

- Pour les cyclomoteurs (cylindrée inférieure à 50 cm³, vitesse maximale inférieure ou égale à 30 km/h), les exigences concernant les émissions de gaz d'échappement sont définies dans l'ordonnance du 22 octobre 1986 sur les émissions de gaz d'échappement des cyclomoteurs (OEV 4).

La procédure de mesurage correspond au règlement ECE-R 47, mais avec des valeurs limites nettement plus sévères.

THE FORMER REPUBLIC OF MACEDONIA

(See Question no. 18)

TURKEY

The application of catalytic converters into new vehicles according to European Community EURO 93 Norms with an adaptation programme is on the agenda of Turkey.

In Turkey, the production of cars equipped with catalytic converters will start in 1995 with an adaptation programme. According to an adaptation programme which was prepared according to EC EURO 93 Norms, catalytic converters applications, in new cars will start firstly in the 1800 cc motor capacity. Then other motor capacity cars will join the programme and the programme will have been completed by the year 2000.

For diesel vehicles the same kind of adaptation programme is being aimed at.

Replies to Question no. 20

CZECH REPUBLIC

The validity of the corresponding documents for newly approved vehicles is limited and its prolongation for a new period is determined by vehicle testing in the Technical Inspection Station. The same procedure is used for harmful substances in exhaust gases. A new law on motor vehicle operation determines, besides the technical status tests, the periodical emissions control too. A network of stations for more frequent and more detailed emissions tests has been prepared.

Programme for stabilization and reduction of emissions produced by transport is a part of the "National Report about Climate Change". For air protection the following laws are in force in the Czech Republic: No. 309/91 and No. 218/92 related to the emissions from transport means and diesel locomotives.

For vehicle liquidation and the raw material recycling participation of manufacturers is enforced when deciding the liquidation technology according to the principle "from the cradle to the grave". State involvement in investments into environment is foreseen. Generally the vehicles liquidation is regulated by the "law on wastes".

DENMARK

From 1998/99 all passenger vehicles are being periodically inspected in general and for their catalysts.

FRANCE

Depuis octobre 1994, tous les véhicules de plus de 5 ans d'âge sont soumis à un contrôle technique obligatoire. Celui-ci est renouvelé par la suite tous les deux ans.

En outre, le Gouvernement français a décidé d'attribuer, du 1er janvier 1994 au 30 juin 1995 une prime de 5000 F à tout acheteur d'un véhicule neuf qui se séparerait, par le faire détruire, d'un véhicule de plus de dix ans d'âge.

FINLAND

A

Periodic emission inspections of in-use passenger cars began in 1993. The test includes CO and HC emission control and a lambda value test.

A

Durability requirement checks of emission control devices have been carried out since 1994.

U

The average age of passenger cars is 8.2 years. Incentives to vehicle fleet renewal have not been used.

A

Scrap vehicles and scrap batteries are collected and treated by 95 per cent, scrap tyres and catalytic converters by 90 per cent. See also tables 5.1 and 5.2 in annex 5.

GERMANY

Contrôle périodique des émissions des véhicules actuellement utilisés dans la circulation routière en Allemagne (contrôle des émissions).

A

1. Depuis 1985

Pour les véhicules à moteur conventionnels avec moteur à allumage commandé (inspection des composants avec contrôle du réglage du ralenti, du point d'allumage et de l'angle de contact et avec mesure du monoxyde de carbone en marche à vide et au ralenti accéléré conformément aux indications fournies par le constructeur). Délais de contrôle: 12, 12, 12 ... mois.

2. Depuis le 1.12.1993

Pour les véhicules équipés de catalyseurs réglés (inspection des composants et de l'efficacité avec contrôle de fonctionnement de la régulation lambda et évaluation du fonctionnement du catalyseur au moyen de la teneur en monoxyde de carbone en marche à vide et au ralenti accéléré). Délais de contrôle: 36, 24, 24 ... mois.

Véhicules à moteur diesel (mesure de l'opacité de la fumée en stationnement avec accélération libre. Délais de contrôle: voitures particulières: 36, 24, 24 ... mois. Véhicules utilitaires >3,5 t: 12, 12, 12 ... mois

La Directive 92/55/CEE prescrit des normes minimales pour l'ensemble de l'UE, qui devront être introduites au plus tard en 1994 pour les véhicules conventionnels à allumage commandé, en 1996 pour les véhicules à moteur diesel et en 1997 pour les véhicules à catalyseur réglé.

Concerning air transport:

In the Federal Republic of Germany operational and financial advantages exist for the operators of aircraft which meet the requirements of ICAO-Annex 16, Vol. I, Chapter 3. For instance, the landing charges for aircraft which only meet the requirements of ICAO-Annex 16, Vol. I, Chapter 2 are significantly higher than the landing charges for aircraft which meet the requirements of ICAO-Annex 16, Vol. I, Chapter 3.

Moreover, there exists a Directive of the Council of the European Communities which requires the phasing out of civil subsonic jet aircraft which only meet

the requirements of ICAO-Annex 16, Vol. I, Chapter 2 from 1 April 1995 to 21 March 2002 in the member States of the European Communities (see reply to no. 17).

Because of these measures the percentage of Chapter 3 aircraft of the aircraft movements at German airports has increased in the last years. For instance, in 1992 76.4 per cent of the commercial aircraft movements with jet aircraft with a maximum take-off weight (MTOW) over 20 t have been carried out with Chapter 3 aircraft at international airports in Germany.

ITALY

All Directives concerning roadworthiness are adopted, especially the Directive CEE 92/55 containing emission limits.

LIECHTENSTEIN

A

Biannual emission controls.

MALTA

Public transport vehicles are being tested regularly for emission control. In the near future, new vehicles for public transport are being introduced which will be more environmentally friendly. New testing equipment is also envisaged to be installed next year, so that all vehicles are uniformly tested, which tests will be based on European Standards.

NETHERLANDS

Periodic inspection

A

The mandatory periodic vehicle inspection contains a check for idle CO and engine speed. It should be set according to the manufacturers' instructions.

P

In accordance with Directive 77/143/EEC an opacity check for diesel-engined vehicles will be introduced by 1996.

P

A check for catalyst efficiency and lambda metering for petrol engined vehicles will be introduced in 1997.

P

Also in 1997 a check for HC at idling engine speed will be introduced to be able to detect vehicles that are worn out or poorly maintained.

Recycling

A

For cars that are to be demolished there is a scheme that provides for selective dismantling and improved recycling.

P

From January 1995 each buyer of a new vehicle shall mandatorily contribute Dfl. 250 to a fund to finance this scheme.

NORWAY

A

Norway will during the period 1994-97 gradually establish a system for roadworthiness testing, included environmental control, according to EU directives.

U

The Government now considers the possibility of changing the annual vehicle tax system, to a system where tax is paid according to the environmental quality of the vehicle. Such a tax system will promote reduction of specific emissions of vehicles.

A

Car hulks are categorized as hazardous waste. A country-wide collection system for car hulks was introduced in 1978, based on a deposit-refund system. This system has performed well, with return percentage constantly above 80. The refund is relatively low and hardly influences vehicle fleet renewal.

ROMANIA

L'introduction sur une échelle de plus en plus large, de la production, de l'importation et de la vente de la gasoline sans plomb.

L'adoption des standards européens EN et des standards internationaux ISO sur la fabrication et les conditions de qualité pour les combustibles et lubrifiants.

L'application des normes du ministère des transports sur les restrictions d'opération sur les aéroports de la Roumanie des avions à réaction, subsoniques, civiles, en vue de limiter les émissions de bruit.

La dotation des avions existants avec des équipements de réduction de bruit.

SLOVENIA

Rules of periodical inspection of vehicles, trailers and tractors and semi-trailers (1983).

Rules on dimensions, axle-loads and other basic conditions to be fulfilled by road vehicles(1982).

These prescriptions cover the technical aspect and exhaust gas emissions.

SWEDEN

Emission controls: All vehicles are inspected regularly. For private cars they are inspected after 2 and 4 years and thereafter annually. At the inspection CO emissions are measured at idle.

The National Road Administration will within a few months look at a system of monitoring emissions from cars in traffic as a means of identifying the "dirtiest" cars in operation. Eventually, such cars will be ordered to pass a confirmatory test after repair.

The special recall test is carried out at the Swedish Motor Test Centre. Each year a number of motor families are selected and tested. Four cars belonging to the motor family and randomly chosen from the car register are tested according to the same test used at certification. If a motor family fails the result is reported to the Swedish EPA. The manufacturer might choose between recalling all cars belonging to the same motor family or at their own cost running a new test.

As concerns recycling, there is a fee on all new passenger cars (1.300 SEK). The fees are administered by a special fund. When the car is delivered to an authorized destruction facility, the last owner will receive an incentive from the fund that mainly covers the costs for recycling.

SWITZERLAND

La Suisse n'a pas de programme destiné à renouveler rapidement le parc des véhicules. L'avantage d'un tel programme serait faible de toute manière, étant donné que depuis le 1 octobre 1987, les voitures automobiles légères sont soumises à des prescriptions sur les émissions qui, en l'état actuel de la technique, ne peuvent être respectées que par des catalyseurs à trois voies. A l'heure actuelle, la part du nombre de voitures de tourisme dotées de cette technique avoisine déjà les 70 %.

Il n'existe pas de prescriptions internationales sur l'entretien des pièces de construction ayant de l'importance pour les gaz d'échappement. Les exigences quant au système anti-pollution des voitures automobiles admises en Suisse figurent dans l'ordonnance du 22 décembre 1993 concernant la modification de textes légaux relatifs à la circulation routière, ainsi que dans l'ordonnance du 22 décembre 1993 sur l'entretien et le contrôle subséquent des voitures automobiles en ce qui concerne les émissions de gaz d'échappement et de fumées.

Les voitures automobiles légères dotées de moteurs à allumage par appareillage externe et dont la vitesse maximale est au moins de 50 km/h, ainsi que les voitures automobiles dotées de moteur à auto-allumage doivent être entretenues périodiquement en ce qui concerne leurs émissions de gaz d'échappement et de fumées. Font exception les voitures automobiles immatriculées pour la première fois avant le 1 janvier 1976, ainsi que les tracteurs. L'entretien comprend l'examen, le réglage, et si nécessaire, la remise en état ou le

remplacement des pièces importantes pour les gaz s'échappement, selon les indications du fabricant du véhicule. A la fin de l'entretien, les émissions des gaz d'échappement sont mesurées avec le véhicule à l'arrêt.

Il n'existe pas en Suisse de prescriptions concernant les possibilités de recyclage des véhicules.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

A periodic inspection of vehicles, including emission control, proper functioning of the transport facilities, etc. has been regulated with a special Act.

TURKEY

Under the "Regulation of Vehicle Inspections and the Opening and Operation of Vehicle Inspection Stations" published by the Ministry of Public Works and Housing, the testing of exhaust gases using appropriate equipment has been made a compulsory part of the inspection of vehicles and the inspection of stations have been obliged to possess the equipment in question.

Also, the official communiqué on "Exhaust Emission Control of Motor Vehicle in use" was published in 1992 by the Ministry of Environment. The purpose of this communiqué is to supply effective pollution control and to force old vehicles to have maintenance carried out. In 40 city centres exhaust emissions of cars of all model and age have been controlled since 1992.

Replies to Question 21

CZECH REPUBLIC

Vehicles' utilization is increased by the establishment of dispatching centres in companies. Generally the urban public transport uses independent lanes for rail vehicles. In order to streamline the individual transporters non-effective lines are cancelled and replaced by other modes of transport. The research tasks ordered by the Ministry of Transport are focused on these problems. Other research tasks are elaborated as parts of international programmes. A new tax (payed once per year) for utilization of the motorways has been introduced. This tax is differentiated according to the vehicle type. This tax is compulsory for foreign users of the Czech motorways, too.

DENMARK

Speed limiters: to improve traffic safety and to reduce energy consumption.

Dedicated lanes in larger cities: To improve the regularity for the public bus transport.

FRANCE

Les autorités françaises mènent depuis de nombreuses années une politique constante d'aide à la circulation routière: l'image de Bison Futé qui est devenue inséparable des vacances d'été en est l'illustration. Cette politique a donné des résultats positifs: en vingt ans, le volume des encombrements sur les grands axes est resté stable alors que le trafic a doublé et que la capacité physique du réseau n'a pas augmenté au même rythme.

L'exploitation routière s'est révélée particulièrement efficace. C'est ainsi que les opérations Palomar et Piste, qui sont déclenchées lors des grandes migrations, permettent de jouer d'une manière souple sur la capacité des grands axes.

Les techniques de régulation de la circulation se révèlent par ailleurs indispensables pour que l'automobiliste tire un parti satisfaisant des grands ensembles de voies rapides qui, de plus en plus, ceinturent les grandes agglomérations.

Enfin, et d'une façon générale, l'exploitation et l'information permettent au conducteur d'utiliser au mieux les capacités routières actuelles, ce qui est précieux à une époque où le coût et l'impact sur l'environnement des voies neuves deviennent difficiles à supporter. On dispose donc de moyen de valoriser le patrimoine routier, alors même que tous les indicateurs montrent que la collectivité peut difficilement se permettre de mal utiliser les infrastructures existantes.

Les autorités françaises s'emploient à créer les conditions d'un développement efficace de l'exploitation et de l'information routières. Les axes principaux de leur action portent sur:

- l'organisation: il s'agit de poser le cadre juridique qui permettra aux diverses collectivités publiques de créer, de concéder ou d'encourager les services nouveaux.
- les technologies: la France participe à un certain nombre de projets de recherche/développement de niveau européen. Le développement des outils de traitement et de diffusion utilisés par le réseau national des centres d'information routière est assuré. Cet investissement, qui a demandé un effort substantiel, va porter ses fruits: la première expérimentation de terminaux d'information routière embarqués à bord de voitures particulières interviendra prochainement.

Le Gouvernement français a mis progressivement en place à partir de 1973 des limitations de vitesse sur l'ensemble de son réseau routier et autoroutier (90 km/h sur routes, 110 km/h sur voies rapides et 130 km/h sur autoroutes). Il a abaissé la vitesse limitée en agglomération de 60 à 50 km/h et en 1994 il a renforcé les sanctions en cas de dépassement des vitesses limites.

Enfin, les autorités françaises ont pris en charge la mise en oeuvre directe des services d'exploitation routière sur le réseau national, destinés aux conducteurs qui souhaitent voir minimisée la gêne due aux aléas de la circulation. Ces services permettront à terme de faciliter les déplacements sur les réseaux maillés de voies rapides des grandes agglomérations (conseil et guidage permanents par Panneaux à Messages Variables (PMV) en fonction des perturbations, tant quotidiennes qu'occasionnelles), sur les grands itinéraires autoroutiers et assimilés (détection et traitement rapides des grosses restrictions accidentelles de capacité, mise en place de déviations), et enfin sur les axes nationaux non autoroutiers. C'est donc sur l'ensemble du réseau national que vont se mettre en place une organisation et des moyens destinés à détecter et traiter le plus rapidement possible toutes les perturbations qui empêchent le fonctionnement optimal de ces voies. En 1993, ce projet a été formalisé en un Schéma Directeur d'Exploitation de la Route (SDER) qui sera le fil directeur à long terme. Sa mise en oeuvre s'échelonnera jusqu'à la fin de la décennie.

FINLAND

A

Speed limits on public roads and highways (60 - 120 km/h) and streets (30 - 60 kms)

A

Dedicated lanes for buses.

U

No road pricing. Plans to introduce road pricing in the Helsinki region have been strongly opposed.

P

Advanced electronic information systems have been investigated on a small scale.

GERMANY

U

La tarification routière (road pricing) dans les agglomérations urbaines.

A l'heure actuelle, la faisabilité d'une tarification routière dans les agglomérations urbaines avec inclusion de systèmes automatiques de perception des droits d'utilisation est testée dans le cadre d'un essai pratique dans la conurbation de Stuttgart. Cet essai vise à examiner les possibilités de réguler les flux de trafic dans les conurbations par le biais de droits d'utilisation à durée variable pour différents types de véhicules. L'essai comprend, pour le transport individuel, des indications améliorées aux offres de transport alternatives des transports publics. La réalisation de l'essai est assurée par le ministère des transports du Land de Bade-Wurtemberg.

U

Le ministère fédéral des transports a présenté dès 1993 un document de stratégie sur "la télématique dans les transports" qui a pour objet l'introduction et l'utilisation de nouvelles technologies d'information. Le document de stratégie part d'une approche intermodale qui permet aux modes transports de mettre à profit leurs avantages inhérents.

Dans le cadre de la présidence allemande de l'Union européenne l'introduction de la télématique dans le secteur des transports comptera parmi les thèmes d'importance prioritaire. Lors de la rencontre informelle des ministres des transports les 22 et 23 juillet dernier à Ludwigsburg les points principaux de l'action future ont déjà été discutés. Les conclusions finales de la présidence ont été présentées.

ITALY

Measures adopted:

dedicated lines for public transport;
traffic restrictions in historical city centres;
overtaxed fuel.

MALTA

Speed limits exist, but there is still no legislation regarding seat belts. Bus lanes have been introduced. Two multi-storey car-parks are being constructed.

An AVL system is being introduced for better control of public transport. This could also be used with bus activated traffic signals.

We have been in collaboration with other countries and research is being carried out regarding advanced electronic information system since these are all very new to Malta.

NETHERLANDS

In the Netherlands many instruments to improve the utilization of the existing transport infrastructure are being tested, used or are in an experimental phase.

Such instruments are used in their own right or in combination with other measures. In general the combination ("package") with other measures is most effective.

A

Speed limits are in common use in congested (urban) areas. Mostly with a speed limit of 100 km/h or lower, instead of the general highway speed limit of 120 km/h. In towns a limit of 50 km/h is in force, in some special areas ("woonerven") a speed limit of 30 km/h.

A

Some dedicated lanes exist for freight lorries and it is expected to expand those.

A

Priority lanes for public (bus) transport are widely accepted, even if the road space is taken away from the original road.

A

In town restructuring of 4 lane roads to two lane roads with ample room for bikes and special bus lanes is widely accepted.

A/U

Much research on advanced electronic information systems is being carried out.

P/U

Road pricing is a political goal for the future, but public opinion is reserved or negative.

U

A dedicated car pool lane experiment has recently been terminated. The preliminary lesson in the case is that public opinion did not accept the priority for car poolers above other traffic participants.

U

Technical programmes for vehicle guidance are supported, but no effect before 2005 is being expected, while this requires implementation on a European scale. And the bottleneck in urban areas remains.

NORWAY

A

Building of dedicated lanes for buses and taxis along existing roads or as part of constructing new roads.

U

There are toll rings to finance necessary road building around the four largest cities. It is possible to differentiate the tax according to variations in congestion and environmental problems to reduce peak-hour problems. Such solutions require local initiative and have not been put into practice yet.

P

The Ministry of Transport investigates the possibilities of implementing road pricing which in theory will be the most efficient way to solve local problems.

ROMANIA

La réhabilitation et la modernisation des voies de communication constituent un objectif prioritaire à long terme du ministère des transports. Comme par exemple :

- la réhabilitation de 1053 km de route nationale d'intérêt européen en 1994-1995;
- la réhabilitation de 1066 km dans la deuxième étape;
- la modernisation des signes et marques routiers pour 5000 km de route nationale;
- le programme de construction des autoroutes - environ 3000 km dans la période 1997-2010;
- l'augmentation de la vitesse de circulation sur les principales magistrales ferroviaires à 160 km/h, pour la période 1994-2000 et à partir de l'an 2000, à 200 km/h;
- l'introduction des services ferroviaires de passagers de type inter-city et euro-city en 1994-1996;
- l'extension des services de transport type RO-LA en trafic international (à partir de novembre 1994 on met en circulation la ligne RO-LA Szeged-Hongrie-Arad-Bucharest-Russie-Bulgarie, ensuite la ligne Bulgarie-République de la Moldavie);
- l'aménagement et la modernization des postes de frontière sur le Danube, y compris la construction d'autres nouveaux ponts mixtes (ferroviaire-auto);
- la mise en circulation de la ligne ferry-boat Constanta-Samsun (Turquie);

- la création de la ligne RO-LA terminal RO-RO-frontière occidentale, mise d'accord avec la ligne RO-RO (Constanta-Istanbul);
- le développement et la modernisation de l'aéroport international Bucharest-Otopeni en 1994-1995;
- la modernisation graduelle de l'infrastructure aéroportuaire des aéroports roumains dans la période 1995-2000;
- l'harmonisation et l'intégration progressive des systèmes de trafic dans la période 1995-2000;

Le principal problème est représenté par l'insuffisance des sources de financement.

SWEDEN

Several measures have been taken which affect the infrastructure and vehicles.

For many years now, Sweden has had speed limits defined mainly with reference to traffic safety but also based on environmental considerations, especially noise.

During the summer of 1991, speeds were generally reduced from 110 km to 90 km. A reduction of accidents and exhaust emissions was then noticeable, especially in big city regions.

Intensified traffic supervision in recent years has resulted in a speed adjustment which has given rise to fewer accidents in Sweden and, at the same time, a certain reduction of exhaust emissions.

Dedicated lanes have come to be increasingly used, mainly at the entrances to large cities but also in urban centres. These lanes are intended for public transport, mainly buses.

Road pricing, as yet, has only been used in one place in Sweden, as a charge for crossing a small bridge in the north of the country.

The question of more extensive pricing for both new and old infrastructure projects is under investigation.

Extensive work is also being devoted to studying the feasibility of using information technology as a means of streamlining road use. A special test road has already been arranged in the Göteborg region.

The possibility is also being discussed of introducing environmental zones in urban centres and closing them to all but the cleanest passenger cars in different environmental classes. Rules of this kind have already been introduced for heavy vehicles and are now being implemented in the City of Göteborg and elsewhere.

SWITZERLAND

Le droit suisse sur la circulation routière dispose d'une vaste gamme de mesures (art. 3 LCR) qui permettent de résoudre en souplesse les tâches qui se posent dans ce domaine. Selon l'art. 106, 2e al. LCR, les cantons sont compétents pour appliquer le droit précité. Ils déterminent les mesures techniques à prendre dans les cas particuliers (par exemple la signalisation des zones, les prescriptions sur le parcage, les limitations de vitesse) et sont responsables de leur application. Les mesures de construction (par exemple la création de routes de contournement, les voies réservées aux bus et destinées à promouvoir les transports publics, le pavage des routes, les giratoires) sont de leur ressort.

Le secteur de l'information des usagers du trafic est actuellement en mutation. Divers modèles de collaboration entre les services étatiques et les organisations privées sont en discussion; les efforts en cours en Europe pour améliorer cette information (par exemple en introduisant les RDS-TMC) sont encouragés par notre pays.

Par ailleurs, diverses activités sont en cours sur une base privée, telles que l'organisation de pools d'automobiles (plusieurs usagers utilisant le même véhicule). Pour des raisons constitutionnelles, la Confédération ne peut agir que partiellement dans ce domaine et son intervention ne s'impose pas pour le moment.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

Measures taken to improve the utilization of the existing transport infrastructure and traffic are the following: speed limits, dedicated lines, road pricing, promotion of accounting vehicles system, etc.

Replies to Question no. 22

CZECH REPUBLIC

According to the Railway Law, the access to the infrastructure will be more liberal and the 91/440 EU Directive will be complied with. The aim of the ongoing transformation and privatisation of the Czech Railways, is to reach the effectiveness of the railway transport system. The liberalization of access conditions to railway infrastructure is part of the transport policy of the Czech Republic. Indicated trends are mostly achieved within individual transport operator activities.

FRANCE

Les nouvelles technologies de:

- l'EDI
- l'identification automatique de mobiles
- télécommunications par satellites

permettront la gestion du fret et de la flotte. Plusieurs projets sont actuellement encouragés par l'Union européenne.

Cette nouvelle forme de gestion contribuera à:

- diminuer les retours à vide des camions
- éviter les congestions en optant pour des itinéraires alternatifs.

FINLAND

A

Finland uses heavier lorries than the European Union does. This is lowering the emissions per t/km.

A

Much research is being carried out in the field of logistics.

GERMANY

La déréglementation des transports routiers de marchandises qui a été poursuivie en 1993 par la loi sur la suppression des tarifs fixes (suppression des tarifs de fret obligatoires dans les transports routiers de marchandises et dans la navigation intérieure) est en mesure d'entraîner, sous des conditions fiscales, techniques et sociales harmonisées, une plus grande flexibilité des entreprises. Le rapprochement progressif des règlements nationaux provoquera une intensification de la concurrence de façon que les entreprises de transport de marchandises soient obligées, mais qu'elles soient également en mesure d'épuiser des potentiels de rationalisation. Ceci permet d'éviter des retours à vide et de mieux utiliser les véhicules affectés aux transports.

ITALY

Reduction of the number of empty hauls, concentration of goods traffic in the main railway centres.

MALTA

Measures taken are the re-scheduling of public transport and re-evaluating the network of public transport in accordance with demand. No organized car pooling exists, but it is done informally on a personal level.

Although buses, coaches and minibuses are privately-owned, there is a ceiling on the number of vehicles operating in these sectors. A White Paper issued in March 1994 entitled "Efficiency thrives on Competition" is advocating liberalization of public transport. Liberalization of maritime cabotage between the Maltese islands could have a social service implication.

NETHERLANDS

Freight transport

Measures aimed at increasing capacity utilization, thereby reducing the number of vehicle-kilometers travelled, are needed for both cutting energy consumption and air pollution and preventing congestion.

A

Dimensions and weights and short-coupling systems for goods vehicle have been harmonized within the European Union. The Netherlands are in favour of increasing weights and dimensions. For national transport the Netherlands apply a maximum weight of 50 tons instead of the EU-standard (44 tons).

Cabotage: the freedom to collect and deliver loads in other countries brings the environmental and economic benefit of minimizing the number of empty homeward trips.

A

The Benelux countries have agreed on free trade in road haulage from 1 January 1991.

A

The removal of quantitative restrictions in third-country transport, which will also help reduce the number of empty homeward trips.

A/P

Distribution centres also benefit efficiency; we promote the development of distribution facilities (bulk-breaking depots) in the neighbourhood of city centres and shopping areas, linked to a system of environment-friendly final-delivery vehicles, which will enable the number of vehicle-kilometers travelled to be reduced.

A/P

Promotion of telematics aiming at bringing together supply and demand of transport services.

U

Enabling firms to carry joint loads on their own vehicles (blurring the division between "own transport" and "commercial transport") or facilitating cooperation within the "own transport" field to avoid empty homeward trips.

U

Improvements in efficiency will also be sought through collaboration with industry on demonstration projects e.g. involving joint loading/cooperation among smaller hauliers, with a view to increasing capacity utilization and hence cutting the number of vehicle movements.

Passenger traffic

(See Questions nos. 21 and 27).

NORWAY

A

The Norwegian market for goods transport has been deregulated more or less according to existing rules of the Internal Market in the EEA-area since 1987.

ROMANIA

La création en perspective des systèmes de transfert et la gestion de données dans le domaine des transports.

SWEDEN

Swedish transport policy is based above all on freedom of choice and, in practice, means that the different modes of transport operate on commercial terms.

Governmental involvement, therefore, does not entail the types of problem referred to in this question.

SWITZERLAND

La réalisation de la NLFA et du projet Rail 2000 permettront d'améliorer l'efficacité du système de transport notamment dans la mesure où ils conduiront à une réduction des temps de transports totaux.

L'Accord de transit entre la Suisse et la CE vise également à améliorer l'écoulement des flux de trafic à travers les Alpes suisses, notamment en donnant la priorité au développement du transport combiné. En outre, le 22 janvier 1993, date d'entrée en vigueur de l'accord de transit, le Gouvernement suisse a demandé l'ouverture des négociations bilatérales avec l'UE sur

l'accès au marché routier et aérien. Ces négociations devraient permettre une libéralisation accrue dans ces secteurs.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

Because of the UN sanctions and the Greek embargo, great changes in the flow of goods have taken place in our country, so there is no possibility to take measures for a more efficient transport system.

Replies to Question no. 23

CZECH REPUBLIC

Based on an intergovernmental agreement, piggy-back type combined transport has been opened on the route Lovosice-Dresden and Nemanice-Villach. In general, combined transport policy is realized by these measures:

- (a) legislation of combined transport in corresponding laws, regulations and standards, tax abatement, road tax for road operators users of combined transport.
- (b) subsidies for the part of infrastructure costs in combined transport tariffs for increase of its competition ability.

As for passenger public transport, an integrated transport system (IDS) is implemented step-by-step in conurbations. The primary goal in the existing economic situation is to create a system enabling to satisfy in an optimal way the transport needs of citizens and visitors of the region. In reality, it results in use of common tickets regardless of transport means of each kind of transport engaged in IDS. Criterion of decision is accessibility of the place of destination using the most effective way. The existing ratio of 60:40 between mass and individual transport in Czech towns is favourable and there is an effort to keep it. Realization of IDS progressed well in Prague and Zlin-Otrokovice and it is under way in the cities of Brno, Ostrava and Olomouc. The Government has fixed and provided funds for city transport development, by promoting electric traction. Under the "Transport policy for the nineties", adopted by the Government of the Czech Republic in 1993 (Resolution no.445/1993), railway transport jointly with road transport are the major transport sectors.

DENMARK

Public transport is promoted through subsidizing. The public bus companies are subsidized by the countries. The state is funding transport coordination in rural areas.

The railway companies (one owned by the state, and a few small private companies) are subsidized by the state.

FRANCE

A) Un accroissement significatif du transport combiné sera recherché d'ici l'an 2000 en France, ce qui requiert d'agir sur les facteurs permettant ce développement (réorganisation du marché, plan de développement communautaire, application de la directive communautaire 91-440, respect de la réglementation du transport routier de marchandises, mise à niveau des infrastructures...).

Progressivement tous les tunnels des principaux axes ferroviaires font l'objet de travaux de mise au gabarit B+ (ligne le Havre, Rouen, Paris). Ce gabarit permet une hauteur totale wagon + chargement de 3,85 m au-dessus du rail à

1,28 m de part et d'autre de l'axe central de la voie.

Par ailleurs, le traitement spécifique du problème posé par le développement du trafic de poids lourds sur le grand itinéraire de transit international Lille-Paris-Avignon, a conduit à lancer l'étude intermodale de solutions alternatives (ligne spécialisée au gabarit fret, autoroute ferroviaire, liaison fluviale Seine-Nord); sur cet itinéraire, le trafic de poids lourds a en effet augmenté de 42 % en 5 ans, le taux de croissance du trafic de transit atteignant même 90 %. Aucun investissement autoroutier ne sera lancé sur cet axe avant la conclusion de cette étude.

De même, les hypothèses de développement du transport intermodal de marchandises (transport combiné ou autoroute ferroviaire) sont intégrées aux études en cours pour le nouveau tunnel ferroviaire (étude TGV sur l'axe Lyon-Turin citée à la question 27).

Cinq chantiers de connexion et transbordement seront également lancés.

B) Un nouveau système de transbordement automatique des caisses mobiles et conteneurs de train à train, "COMMUTOR", sera situé en région parisienne. Il augmentera le taux de remplissage des trains et le nombre d'origines-destinations desservies. La gestion et le replacement des caisses mobiles et conteneurs vides est facilitée par le réseau "origines-destinations" desservie. Il diminuera le temps de triage, ce qui permettra d'effectuer le trajet entre les chantiers d'origine et de destination pendant la nuit.

C) Dans le cadre des politiques d'amélioration des déplacements urbains, une véritable priorité doit être donnée aux transports collectifs dans les zones denses des grandes agglomérations, conditions nécessaires à la maîtrise de l'usage de la voiture particulière.

En sus de la région Ile-de-France, 32 grandes agglomérations françaises ont pris l'initiative de développer des infrastructures de transport collectif en site propre, avec des projets adaptés à leur taille et à leur configuration: voies en site propre pour autobus, lignes de tramway, réseaux de métros légers, métros lourds et transports ferroviaires péri-urbains.

La réalisation de ces projets devrait se traduire d'ici l'an 2000 par un accroissement significatif de l'effort consenti par la France en faveur des transports collectifs urbains.

FINLAND

A

Public transport has been subsidised for many years. This has helped it keep its market share.

U

The possibilities of combined transport are being investigated.

GERMANY

Le Gouvernement fédéral cherche à promouvoir le transport combiné par des mesures réglementaires, par exemple, par des mesures dérogatoires en ce qui concerne l'impôt sur les véhicules à moteur, les poids totaux des véhicules routiers, les défenses de circuler et les contingentements.

I. Prestations de l'Etat dans le domaine des transports publics

par exemple:

1. Allègements fiscaux

- a) allègement de la taxe sur le chiffre d'affaire pour les billets de transports publics.
- b) exemption de l'impôt sur les véhicules à moteur pour les autobus de ligne dans le cadre des transports publics.
- c) Renonciation à des recettes fiscales en tolérant une association fiscale entre des entreprises de transports déficitaires et des entreprises publiques de distribution urbaine au sein d'une entreprise communale.

2. Aides d'investissement

- a) loi sur le financement des transports urbains (GVFG)
- b) à partir de 1996 également: aides de régionalisation (modalités et distribution réglées par les Laender) - pour les transports publics (investissements et gestion).
- c) loi sur l'aménagement des voies ferrées (uniquement pour la DB)
- d) dans les nouveaux Laender entre 1995 et 2004 également: loi sur la promotion de l'investissement dans le cadre de la construction de l'Allemagne de l'est.

3. Indemnités compensatoires (réglées par la loi) pour:

- le transport de grands handicapés dans les transports publics
- les abonnements à prix réduit destinés aux apprentis.

4. Fonds des laender pour certains objectifs (relevant de la politique des Laender) dans les transports publics:

- a) relevant de fonds propres des Laender
- b) relevant des fonds de régionalisation à partir de 1996

5. Fonds destinés aux projets de recherche, au développement de concepts et d'essais de modèle.

- II.
- a) Promotion de la circulation des bicyclettes
 - b) Amélioration de l'infrastructure des voies cyclables (du ressort des communes).

ITALY

Promotion of combined and multimodal transport of goods. Promotion of public transport with restriction of the traffic in town centres. Creation of large parking areas in the peripheries permitting the use of public transport during certain periods of the day.

LEICHSTENSTEIN

A

Promotion of public transport of passengers.

MALTA

In examining the potential for bus fleet replacement buses which emit low levels of pollution elements will be viewed more favourably.

NETHERLANDS

Freight transport

A large proportion of the growth in the market shares of rail and waterway freight will be concentrated in international container traffic and combined transport. Success in these markets depends on the development and expansion of combined road/rail, waterway/rail and waterway/road transport. The industries concerned have major responsibility in this area.

A

Promotion of route management (rail/road transport)

A

The operation of roll-on/roll-off vessels on the Rhine, enabling these new forms of combined transport to play an ongoing part in advanced logistical services.

A/P

The railways's role will lie in the area of container transport and in that of regular and shuttle freight services, with the Rail Service Centres playing an important part. Some centres are already established, some other are still to be established over the few next years. The Government contributes to the investments.

A/P

The introduction of a new container handling system (ACTS).

P

The road-haulage industry will take an active line on rail transport in relation notably to Austria, Switzerland and Italy and on water transport in relation to Belgium and the countries on the Danube region.

As recent years have shown, the waterways too can play an effective part in a more integrated transport system. Around 25 per cent of the containers transported between Rijnmond and Germany go by inland waterway, and container traffic on the waterways has grown in recent years by 15-20 per cent. Much can be expected of combined road/water transport, given the development of roll-on/roll-off services, while there are also good prospects for combined rail/water transport.

The transport industry's own responsibility is re-emphasized, extending not just to the point-of-origin organization of transport from/to the Netherlands but also to point-of-destination organization in other European countries.

A/P

The Government will support initiatives from local authorities and industry for the development of freight-distribution centres and inland terminals and will seek to create the right framework in such areas as infrastructure and international regulations.

A/P

In this connection steps are being taken to improve EU regulations on cross-frontier traffic and the necessary standardization.

P

Government funding totalling several million guilders will be needed over the next few years for combined transport terminals serving the waterway network.

U

Decisions on the need for further funding will be made in the light of market developments and industry's initiatives.

Passengers transport

Essential is a policy which combines better alternatives for cars (public transport, bicycle, car pooling) with discouraging car use (higher prices for car use, road-pricing, parking policy) and urban development combined with public transport infrastructure (housing, working areas, recreation, shops). Regional and local authorities play an important role in this policy.

Measures to promote public transport are:

A/P

More investments in infrastructure (rail network for national railways and regional transport for buses/trams/underground).

A/P

Subsidy will be based on output (ic passengerkilometers) instead of input: transport companies will be more client-oriented.

A/P

Regional priority for environmental friendly modes: bicycle, public transport.

The bicycle master plan

A

To promote the use of bicycles, in 1990 the Bicycle Master Plan was published. Targets are a.o.

a 30 per cent increase in the number of kilometres cycled between 1986 and 2010;

a 15 per cent increase by 2010 (compared with 1990) in the number of extra kilometres travelled by train because of improvements in cycle-rail links;

halving - also for 2010 - the number of cyclists' fatalities compared with 1986, and a reduction of injuries by 40 %;

a substantial reduction in bicycle theft by 2000.

A/P

Some 50 million guilders a year are currently available in grants for cycling infrastructure. In 1991 and 1992, investment in new schemes and the revamping of existing facilities amounted to about 650 million guilders. That is about 2.5 cents for every kilometre ridden by Dutch cyclists. Half the funding came from municipalities, about 15 per cent from provincial governments, and the rest from various ministries.

A/P

A start has now been made with extra cycle parking facilities at stations, and we are likely to see much more investment in this area in the next few years.

NORWAY

A

In its national plan for rail transport 1994-1997 the Government suggests a considerable increase in investments to develop the railway system for long-distance goods transport and passenger transport between the largest cities and in the most densely populated regions around these cities.

A

The Government buys transport services from the national rail company, mainly to cover some of the capital costs for necessary capacity to meet peak-hour demand. In the 1994 State Budget approximately 770 millions NOK is reserved for this purpose. In comparison the investment in infrastructure amounts to 775 millions NOK.

A

The Government grants considerable sums of money to counties and municipalities. This grant is an important part of the income of counties and municipalities and are distributed to reduce regional variations in costs for different public services, among others public transport and

building/maintenance of parts of the local road network. The grant is not ear-marked for special purposes. The country is free to decide how much money should be spent on hospital, education, subsidies to local public transport. etc.

A

In 1994, the Ministry of Transport will use more than 200 millions NOK to support investments in infrastructure for public transport in the 4 largest city regions.

A

Other parts of the country may apply for grants to carry out projects testing new solutions in public transport, total amount in 1994 about 30 millions NOK. These funds are not intended to be permanent financing.

A

Investments in roads for pedestrians and cyclists along existing national roads is planned to be more than 1 billion NOK in 1994-1997, a 30 per cent increase compared to the previous 4-year period.

ROMANIA

Les chemins de fer roumains font des expériences pour l'introduction sur une grande échelle des systèmes de transport combiné.

SWEDEN

Transport policy in recent years has come to be increasingly influenced by environmental considerations.

Tangible proof of this can be seen in the redirection of Sweden's heavy infrastructure investments. At the same time as necessary improvements are being made to the road network, a very heavy increase in railway investments has been decided on. A new, modern rail network will now be constructed in Sweden, aimed above all at creating HST links between the three metropolitan cities of Stockholm, Göteborg and Malmö. Roughly MSEK 40,00 (equalling ECU 4bn) will be invested over the next ten-year period.

To this is added the Oresund Bridge, with dual railway lines linking Malmö in Sweden with Copenhagen in Denmark.

Parts of this programme already completed point to a substantial growth of traffic.

Very large new investments will also be made in the mass transport systems of the three metropolitan cities, with a view to enhancing public transport amenities. These investments will be concerned with improving and expanding commuter rail and underground services and with improving city centre conditions for bus transport.

At the same time, extensive improvements are being made, locally and regionally, to the vehicle fleet. Old, environmentally sub-standard buses are

electricity and hybrid techniques.

Swedish transport research today is focusing more and more on the environmental problems of traffic.

This research is focusing on energy - and environment - issues concerned mainly with reducing carbon dioxide emissions from road vehicles.

Activities include both primary and more practically oriented, applied research.

The practical experiments include the following two projects.

One of these is concerned with biofuels. Tests are being conducted to find out whether ethanol, for example, can be used as a vehicle and what the consequences of this would be for Sweden.

The other project, which began recently, is concerned with testing and developing electrical and hybrid vehicle technology. Comprehensive experiments will be performed over the next few years in Stockholm, Göteborg and Malmö and in a couple of smaller Swedish towns. The experiments will result in recommendations to the Governments.

Purchase tax is reduced for vehicles in the superior environmental classes.

So far experience has been gained in the passenger car sector. Today about 40 per cent of cars sold come in environmental classes which are superior to the mandatory class. This shows that economic instruments also have the intended effect on car purchasing.

Road pricing and vehicle tolls are being discussed in Sweden. A couple of decisions have been taken which can be regarded as "pilot decisions".

Charges are made today for crossing a small bridge in northern Sweden, and charges are planned for the Oresund Bridge.

Two Government Commissions are at present working on these proposals. One Commission is studying restricted zones and another is dealing with road pricing.

Road pricing, restricted zones and vehicle tolls are a controversial issue in Sweden and have been on the political agenda for many years.

SWITZERLAND

Promotion du transport combiné

Comme nous l'avons indiqué ci-dessus, la Suisse a opté pour une politique des transports en faveur des modes de transports respectueux de l'environnement, tels le rail et le transport combiné.

La Suisse s'est donnée très tôt les moyens de cette politique, puisque les premiers services de transport combiné ont vu le jour en 1968. Afin d'offrir une alternative efficace au trafic de transit routier Nord-Sud, l'offre a essentiellement été développée sur l'axe Bâle-Chiasso. Deux types de techniques sont utilisées:

- le ferrouage: il comprend la "route roulante" et le transport combiné non accompagné;
- ainsi que le transport par conteneurs.

De 1980 à 1993, le tonnage transporté a quasi triplé. Cette évolution a nécessité une amélioration constante de l'offre qui a notamment été rendue possible par les mesures d'aides au transport combiné prévues par la Conférence, à savoir:

Les aides aux investissements

Selon l'Ordonnance sur la promotion du trafic combiné et du transport de véhicules accompagnés, des contributions ou des prêts à intérêt de faveur peuvent être versées pour la construction, l'acquisition ou le renouvellement d'installations et d'équipement servant au transbordement entre les moyens de transport, l'extension des installations ferroviaires nécessaires pour couvrir les besoins du trafic combiné, l'acquisition de véhicules ferroviaires pour le trafic combiné, ainsi que les autres investissements qui facilitent et favorisent l'utilisation du trafic combiné.

Contributions d'exploitation pour le ferrouage

En Suisse, le ferrouage est inclus dans les prestations de service public, au même titre que le trafic régional de voyageurs. Les coûts non couverts de ce système de transport sont donc indemnisés par la Confédération. Le transport par conteneur ne bénéficie pas de telles subventions.

Incitations fiscales

Les transporteurs routiers suisses et étrangers doivent s'acquitter de la redevance sur les poids lourds. L'Ordonnance y relative donne cependant la possibilité d'obtenir un remboursement de 1/360 de cette redevance pour chaque envoi effectué en transport combiné.

Transport publics urbains

Après la mise en service en 1990 de la "S-Bahn" (RER) dans la région zurichoise, le "Tramway du Sud-Ouest Lausannois (TSOL)" est entré en fonction le 2 juin 1991. Cette ligne, qui est un mélange entre tramway et métro, relie Lausanne à sa banlieue ouest en pleine expansion. Le TSOL, d'une longueur de 7,8 km, part de la gare du Flon située au centre de Lausanne et aboutit à la gare de Renens. Il dessert notamment l'Ecole polytechnique fédérale (EPFL) et permet le transport de 25,000 à 35,000 personnes par jour. Il s'inscrit dans le système de transports publics existants et pourrait prolongé si nécessaire, à l'est en direction de Pully et à l'ouest vers Morges.

Amélioration de l'infrastructure ferroviaire

Voir Question no. 23.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

There are no possibilities for a faster development of environmentally sound modes of transport in a great number of cities, because of economic reasons.

A trolley system is planned to be constructed in Skopje City, the capital of our country.

TURKEY

For transportation of goods, heavy duty vehicles (eg. trucks etc.) that produced in Turkey, must satisfy EURO-1 emission and noise standards.

In urban areas, such as Ankara and Istanbul natural gas buses have been used for public transport for about 3 years.

Replies to Question no. 24

CZECH REPUBLIC

Within the "Action programme for environment in the period of 1994-1996", a set of legislative measures are envisaged (see also Question no. 16). As for railway transport, taxation of railway infrastructure use is planned. In newly introduced road tax system, there is a tax abatement until 1995 for road vehicles for business activities, which meet existing ECE Regulations nos. 49 and 83. Other advantages are mentioned in the 16/94 Act. In addition, the "Tax on fuels and lubricants consumption" is applied.

DENMARK

Purchase tax (total perceived in 1992: 8.532 mio dkr.) and an annual tax (total revenue in 1992: 4.208 mio dkr.) on private vehicles.

Tax on fuel (see also question no. 19). The total revenue from the petrol tax was in 1992: 5.651 mio dkr.

Tax on Co₂.

FRANCE

Pour améliorer le trafic et dans l'intérêt des usagers, il est demandé à ceux-ci de déplacer leur temps de trajet pour éviter soit une affluence soudaine sur l'autoroute soit qu'une autoroute soit délaissée au profit d'une autre.

L'information peut servir à convaincre l'usager mais le meilleur moyen de moduler le trafic est le péage.

La modulation du péage autoroutier selon la date, l'heure (modulation temporelle) ou l'itinéraire (modulation spatio-temporelle) doit contribuer à mieux répartir le trafic et limiter la congestion. Une expérience récente sur l'autoroute Paris-Lille montre qu'une telle modulation était bien comprise et bien acceptée par les usagers et apportait des gains de fluidité par le report des trafics. Les études sont en cours pour engager prochainement d'autres expériences, en particulier sur l'axe Nord-Sud.

Ces mesures doivent permettre de s'orienter vers une meilleure adéquation entre les tarifs et les coûts, y compris les coûts externes, notamment ceux de congestions occasionnées par les usagers.

Une réflexion en vue de réformer le mode de calcul de l'assiette de la vignette automobile afin de mieux intégrer le facteur consommation ou émissions de CO₂, est en cours.

La Taxe Intérieure sur les Produits Pétroliers (TIPP) a été substantiellement relevée au cours de ces dernières années. Pour le gazole, l'accise est de 2,1 F par litre (soit environ 323 Ecus pour 1000 litres) c'est-à-dire supérieure au taux minimum communautaire (245 Ecus pour 1000 litres).

FINLAND

U

Infrastructure tolls have not been used.

A

The purchase tax for cars has been lowered during the last 5-6- years but is still one of the highest in Europe (102% of the import value). An annual tax was introduced in 1994 (ECU 51) and was raised again for 1995 (ECU 85).

A

Fuel taxes are on typical European level. A carbon tax was introduced in 1990. See also page 11 of "Transport and the Environment in Finland" attached to the replies.

GERMANY

U

Droit d'usage calculés en fonction du kilométrage parcouru.

A l'heure actuelle les possibilités d'un prélèvement de péages d'autoroutiers pour des catégories différentes de véhicules au moyen de techniques de perception automatique sont testées sur demande du ministère fédéral dans le cadre d'un essai pratique, sur une section d'essai (A 555 entre Cologne et Bonn). Dans cet essai, le problème de la faisabilité technique d'une perception automatique de droits d'usage est au premier plan.

Parallèlement à cet essai, les conditions et l'impact de l'introduction de péages autoroutiers sont examinés; font partie, entre autres, les effets sur les plans de la circulation, de l'économie et de l'environnement ainsi que les questions relevant de la protection des données.

Les études continuent encore; des décisions sur l'introduction de péages autoroutiers n'ont pas encore été prises.

U

La République fédérale d'Allemagne introduira à partir du 1er janvier 1995, à côté des taxes spécifiques du domaine des transports - taxe sur les véhicules à moteur et droit d'impôt indirecte sur les hydrocarbures - un droit d'usage pour l'utilisation des autoroutes par des véhicules utilitaires lourds.

Le droit d'usage autoroutier vise à aboutir à une imputation plus juste des coûts d'infrastructure.

En outre, un deuxième objectif est de créer des incitations pour l'achat ou la construction de véhicules avec des valeurs d'émission réduites par l'introduction d'éléments liés aux valeurs d'émission dans la taxe sur les véhicules à moteur; ceci a été réalisé dans une première étape pour la taxation des poids lourds et est prévu sous peu pour les voitures particulières.

ITALY

Motorway and parking tolls, fuel tax.

LIECHTENSTEIN

U

Tolls on parking places.

MALTA

The concept of peak pricing may be introduced on certain over-loaded sectors.

A very high first registration tax on private cars has been introduced in order to discourage the increase of cars on the roads.

Vehicle fuel consumption is highly priced.

Unleaded petrol costs less

NETHERLANDS

U

A number of measures for reduction of growth of private car use, e.g. pricing policy, remain to be worked out in full so that a definitive decision can be taken. Apart from general economic considerations, factors such as trends in excise duty in neighbouring countries are important in this regard. It is crucial that the policy pursued should curb the growth in car use during the period 1986-2010 by, for example, making a progressive, structural increase in motorists' direct costs. It is also important that the link between public transport fares and variable motoring costs should be maintained as a component of pricing policy.

U/P

An increase in the excise duty on petrol in order of 20 cents in real terms (of which 11 cents already have been achieved by 1 January 1994, excluding the effect of inflation), in combination with (in order to retain a cost balance between fuels) an increase of the order of NLG 200 to 250 in the annual car tax for LPG-driven cars (action N31); this assumes a real increase in public transport fares of 1-2 per cent per annum for the period to 2000.

U/P

A further increase in the excise duty on petrol to the order of 40-50 per cent in real terms for the period 2000-2010, together with an increase to the order of 450 in the annual car tax for LPG-driven cars, making the same assumption about real increases in public transport fares over this period.

U/P

A system of road pricing will be introduced into the Netherlands as soon as possible. In preparing this, consistency both in technical and planning terms

will be sought with developments in other European countries, particularly Germany (action N32).

Particular attention is needed for social and recreational traffic, since it accounts for a considerable proportion of vehicle-kilometres.

U/P

Locating recreational establishments and facilities in or near to urban areas and ensuring good access by public transport and bicycle (town planning and siting policy).

U/P

The increases mentioned above will be offset by equal reductions elsewhere. The extent to which these will be achieved through motoring taxes or through reducing taxes on earnings remains to be evaluated.

U

Introduction of a peak-hours surcharge.

U

Existing fiscal instruments will be reviewed to see whether they can be used, for examples, to reduce the use, for both private and business purposes, of leased company cars (tax deduction of motoring costs) or commuting by car (e.g. by appropriate adjustment of travel cost and earned income allowances).

NORWAY

A

The CO₂ tax (see Question no.18) will contribute to limiting the transport demand. The total tax on fuel is at present 4,19 NOK/litre on unleaded petrol and 2,85 NOK/litre on low-sulphur diesel.

A

Compared to most other countries Norway has a very high vehicle purchase tax which tends to reduce the size of the vehicle fleet. The transport demand is considered to be closely connected to the number of vehicles.

A

There are toll rings around the four largest cities in Norway. These will, depending on the tax system, to some extent limit transport demand.

P

Road pricing, see also Question no.21.

ROMANIA

Le projet de loi concernant les taxes par véhicules et carburants pour la création des fonds nécessaires pour la construction et la conservation des routes et des autoroutes est en train d'être étudié.

En cours d'élaboration se trouve également un règlement portant sur la taxe pour l'opération par des avions qui dépassent le niveau de bruit admis.

SLOVENIA

The Act on the protection of the environment provides a basis also for ecological tax on noxious substances in raw materials or products. The application of the Act is being elaborated. It will be applied also for air pollution.

SWEDEN

The present Swedish strategy in this field is to use several different methods, all of them aimed at influencing demand for transport and thus helping to reduce environmental disturbances.

Environment taxation of both vehicles and fuels has developed a great deal in recent years.

Petrol and diesel fuel are both now divided into environmental classes, in such a way that different qualities are differently taxed, the principle being for inferior qualities to be taxed more heavily.

For diesel-powered traffic, this has meant favourable pricing of the better grades, and standard diesel fuel has almost vanished from the market. This has conferred great environmental advantages, above all in urban communities.

Petrol is similarly divided into environmental classes, with the same taxation mechanisms. This reform is being implemented from 1 January 1994, at the same time as the inclusion of lead in vehicle fuels is being completely prohibited.

There are two kinds of general tax on fuel in Sweden: a general energy component and a carbon dioxide component.

Tax today equals about 50 % of the selling price (SEK 3.75 out of 7.50).

Between 1991 and 1994, tax and price have been increased in such a way as to raise the total price about SEK 4.50 to SEK 4.50.

Although there has been a general growth of traffic during the period, the growth rate has diminished, with the result that relatively less fuel is being consumed than would otherwise have been the case. Calculations have shown, for example, that carbon dioxide emissions from Swedish traffic would have been about 2 million tonnes greater without these instruments.

In Sweden's experience, then, economic instruments applied to fuels have a direct environmental effect.

The principles applied to fuels also apply to different kinds of vehicle.

Both cars, lorries and buses are divided into environmental classes to which taxes are linked, aimed at directing purchases towards environmentally superior vehicles.

SWITZERLAND

Taxes prévues dans le cadre du nouvel article constitutionnel sur la protection des Alpes : voir Question no. 13.

Taxe sur le CO₂.

Afin de contribuer à la réalisation des objectifs de la Conférence de Rio sur l'environnement et le développement, le Conseil fédéral examine en outre la possibilité d'introduire une taxe d'incitation sur les émissions CO₂. Le but est de stabiliser ces émissions en l'an 2000 à leur niveau de 1990.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

Measures to regulate transport demand are not envisaged in our country, because of the fact that transport companies have small economic power.

TURKEY

For directing the public towards the consumption of unleaded gasoline because of its low harmful effect on human health, the Government has decreased certain funds or taxes on unleaded gasoline. So the price of unleaded gasoline was decreased to generalize usage of unleaded gasoline.

Replies to Question no. 25

CZECH REPUBLIC

The Government has decided to implement a basic transport system using by-passes, namely in Prague, Brno and Plzen. The programme of motorway network and 1st. class roads development until 2005, which includes construction of by-passes and feeders, is approved. Construction of park-and-ride areas in connection with mass transport means, especially underground, is assumed for city centres relief.

DENMARK

Bypasses around major cities.

FRANCE

La plupart des infrastructures routières en milieu urbain sont gratuites (routes ou radiales). Les mesures actuelles pour éviter la circulation de transit dans les zones urbaines consistent en la construction de rocade de contournement. Il existe quelques projets de traverse à péage (par exemple le tunnel Prado-Caverage à Marseille).

FINLAND

Bypasses around cities are commonly used to avoid transit traffic.

GERMANY

Il s'agit là en premier lieu d'un problème local/régional qui relève de la responsabilité des collectivités locales. La loi sur le financement des transports urbains avec les fonds y affectés (au total 6,28 mrd. DM chaque année!) constitue l'aide financière la plus importante pour les investissements destinées à "l'amélioration de la situation des transports dans les communes". Promotion de "parkings de dissuasion afin de réduire le transport individuel motorisé".

ITALY

The "High speed" railway will permit the realization of "Trenoports" facilitating of changing transport modes and the use of environmentally favourable ones (light metro, etc.). For goods transport, intermodal centres will be created out of urban areas permitting to lorries to avoid the city centres.

MALTA

Bypass roads have been built on the mainland primarily to alleviate the narrow main roads traditionally found in towns and villages.

NETHERLANDS

A

In one case (Utrecht) by-pass lanes have been constructed. This is an effective measure for transit traffic, but not applicable in all situations.

A

In general there are no more transit highways through large cities. Many rings around cities have been constructed. More and more cities use those rings to keep traffic out of their city areas. City areas are becoming more and more areas with very low traffic intensity. As a result of this city policy congestion around urban areas increases.

NORWAY

A

Building of by-passes contributes to reducing local environmental and congestion problems, especially noise. In smaller towns traffic calming may be an alternative to bypasses.

ROMANIA

La construction des routes de contournement autour des principales villes dans le cadre de la réhabilitation des routes et la construction de l'autoroute de ceinture de Bucarest dans le cadre du programme de construction des autoroutes.

SWEDEN

For many years now, Sweden's three metropolitan cities - Stockholm, Göteborg and Malmö - have shown an increasing traffic density, with congestion and notable disruptions of the environment.

Already in 1990, the Government opened special negotiations in each region, in an effort to find solutions to traffic and pollution problems.

Three agreements were reached and the State contributed towards financing the infrastructure -roads, underground railways, etc.

The programmes drawn up, now that they are being gradually implemented, are noticeably improving both traffic conditions as such and the state of the environment. All calculations point to reduced emissions.

The difficulties in putting programmes into effect are mainly connected with disagreement as to whether by-passes actually reduce traffic and improve the

environment, and whether toll systems can really be introduced in order to finance bypasses and environmental improvements.

The Riksdag and Government, however, have decided in principle to go ahead with the programmes.

SWITZERLAND

Depuis 1985, la Confédération dépense environ 5 millions de francs par an pour la construction de routes de contournements et pour les mesures d'assainissement du trafic à l'intérieur des agglomérations.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

Many bypass roads have been constructed in urban areas in our country in order to avoid transit traffic in these areas.

Replies to Question no. 26

CZECH REPUBLIC

The sensitive areas in the stated sense are fixed in the 114/92 Act on nature and landscape protection. Concrete measures are proposed for the most critical areas, for example protection of "Protected Nature Area Elbe Sandstones". To relieve trunk roads through frontier-crossing Cinovec (the passing of Krusne hory, unfavourable slope gradient, unsuitable transit through some towns), the Czech government with the Saxon government have prepared and opened on 25 September 1994 the accompanied combined transport on the line Lovosice-Dresden with an assumed 24 hours capacity of 250 lorries in each direction. Methodology for evaluation of road vehicles impact on the environment (Centre of Transport Research in Brno) is just being worked out.

FRANCE

Les tracés des infrastructures tentent d'éviter les "zones sensibles". Si ces zones sont traversées, des mesures de réduction d'impact sont mises en oeuvre.

Qu'entend-on par "zones sensibles" ?

Le décret ministériel no. 91-1122 du 25 octobre 1991 traite de "zones sensibles" mais sa portée n'est que nationale. Il transcrit en droit français les dispositions des trois directives communautaires:

- no. 80/779 du 15 juillet 1980 concernant des valeurs limites et des valeurs guides de qualité atmosphérique pour l'anhydride sulfureux et les particules en suspension.
- no. 85/203 du 7 mars 1985 concernant les normes de qualité de l'air pour le dioxyde d'azote.
- no. 82/884 du 3 décembre 1982 concernant une valeur limite pour le plomb contenu dans l'atmosphère.

Il dispose que "des zones sensibles" peuvent être créées et délimitées en vue de limiter ou de prévenir un accroissement prévisible de la pollution atmosphérique à la suite, notamment, de développements industriels ou urbains et d'assurer une protection particulière de l'environnement et de préserver la santé de l'homme.

Par ailleurs, le projet de directive communautaire relative à la lutte contre les émissions de composés organiques volatiles (COV) résultant du stockage de l'essence et de sa distribution aux terminaux de stations-service, qui a fait l'objet d'une position commune arrêtée par le Conseil des Ministres de l'Union européenne le 4 octobre 1993, envisage le cas de "zones géographiques où il serait établi que des mesures particulières sont nécessaires à la protection de la santé humaine ou de l'environnement en raison de conditions particulières".

FINLAND

Sensitive areas like nature conservation areas, recreational areas, parks, etc. are protected against traffic by the means of land use planning. The role of rail and combined transport has been emphasized on a more general level.

GERMANY

Les nuisances dues au trafic de transit pourront être réduites par une utilisation accrue du transport combiné (transfert du transport de marchandises sur le rail et les voies navigables), par exemple par:

- la conception spéciale de terminaux proches des frontières avec l'inclusion du rail, des voies navigables et de la navigation côtière/maritime selon des critères de qualité déterminés pour le trafic de transit;
- des solutions techniques innovatrices (par exemple, systèmes bimodaux);
- le développement d'une conception nouvelle de la "route roulante" avec des coûts de gestion réduits.

A

Contournement des zones de protection d'eau conformément à la loi sur l'économie de l'eau, notamment en ce qui concerne le transport de matières critiques pour l'eau.

ITALY

Ring-roads around cities for transport of goods, development of combined transport.

MALTA

Sensitive areas are those areas which are defined by local environmental policies (e.g. historical, cultural, etc.). These are largely safeguarded from development. However, being an island, we can encourage heavy freight to use ports closer to industrial areas, so as to avoid travelling through environmentally sensitive areas.

NETHERLANDS

In the Netherlands different sensitive areas can be distinguished: noise free areas, nature, areas to be protected from soil pollution, areas for production of drinking water.

Measures to avoid transit traffic in these areas are:

A

Rerouting.

A

Spatial planning, choosing locations for living/working in such a way that transit traffic in sensitive areas can be avoided.

A/U

Restricting accessibility (depending on time, intensity, transport mode)

NORWAY

There is no "authorized" definition of sensitive areas, but the expression is mostly used about residential areas, historic parts of some towns and the CBD.

A

Building of bypasses and "ring-roads" inside the densely populated area. Local traffic is drained from minor roads in sensitive areas to "ring-roads" with high capacity.

U

The Ministry of Transport is planning to test the effects of canalizing heavy trucks to special routes. If this proves successful, the intention is to adopt provisions which will allow local authorities to use this instrument.

SLOVENIA

There are protected regions defined in the

Legislation on the protection of natural patrimony.

Act on the protection of waters.

Act on the protection of water collecting areas.

Act on the protection against noise in natural and dwelling areas (1980).

It defines different permitted levels for sensitive areas.

SWEDEN

No measures have been taken to increase combined transport in sensitive areas. Investments made in combined transport have been carried out to face an existing demand for transport. All measures taken aim at reducing the environmental impact of heavy traffic passing the inner parts of cities and villages (small and large).

Local authorities might under the Road Traffic Act ban the transit of lorries above 3.5 tons within sensitive parts of cities if they can use an alternative road outside the sensitive area.

Local authorities might also declare sensitive parts of cities as environmental zones. Such zones will be introduced in the three major cities within a few years. The introduction will be coordinated. Currently, only the mobility of lorries will be affected. Only lorries belonging to the "cleanest" environmental classes will be allowed in the zones.

A governmental committee now has proposed that the system also shall affect light vehicles. An alternative to banning the "dirtiest" cars from the environmental zones might be to introduce zone fees that are related to the environmental classes of the vehicle.

SWITZERLAND

Voir Questions nos.13 to 19.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

There are special traffic rules in the areas which are under special protection. There are three national parks where these special traffic rules apply. In the urban areas, there are pedestrian zones and motor transport is forbidden in those zones.

Replies to Question no. 27

CZECH REPUBLIC

Within the Combined Transport Project (see Question no. 26) container terminals are built-up in Lovosice for operation on the Lovosice-Dresden line. For combined transport development, the purpose made subsidies to the investment funds are provided from the state budget: for example individual subsidy of 10 per cent and repayable financial aid of 40 to 55 per cent for terminals, rolling stock for combined transport and handling equipment.

FRANCE

La prise en compte des coûts internes et externes de chaque mode de transport est à la base des relations financières contractuelles entre la SNCF et les pouvoirs publics et également des conditions d'application de la directive 91-440 de l'Union européenne. Les objectifs de préservation de l'environnement se trouvent ainsi intégrés à la politique ferroviaire française (contribution aux charges de la SNCF).

Par ailleurs, l'interopérabilité des réseaux européens et leur coopération à travers les regroupements ferroviaires contribueront grandement à valoriser les infrastructures existantes en augmentant la qualité de l'offre de transport par voie ferrée et donc son attractivité.

ITALY

Nearly all the investments are allocated to railways in order to promote combined transport.

MALTA

Development of public transport interchange points especially at harbours and a park-and-ride with public transport facility is being considered.

NETHERLANDS

Freight transport

Structural rail freight.

A critical situation could well arise on the rail network over the next few years affecting freight and passenger transport alike; in particular, capacity shortfalls will develop in the near future as the policy of promoting public transport begins to bear fruit.

It is vital that sufficient capacity is reserved for goods traffic on the main freight-carrying routes.

A/P

A total of 1.4 billion guilders is earmarked for constructing, upgrading and electrification of rail lines for goods transport.

A/U

Construction of a new railway line exclusively for the transport of goods Rotterdam - Germany borders (Betuwe-line).

A/U

The development of high-speed lines will also create extra capacity for rail freight, both on the new link and on existing routes to Eastern France, Southern France and Spain. The extent to which this expansion of capacity can be used to stimulate regional initiatives aimed at promoting rail freight is to be investigated.

Water freight

Three waterways excepted, the structure of the network needed in 2010 is already in place. Even so, heavy investment will be needed to carry out that which is overdue.

A/P

Maintenance, modernization and expansion work on trunk waterways.

P

In 1993 a study for improvement of the Waal river was completed. Improvement will soon take place.

U

The feasibility of a new link between Twente and the Mittelland Canal (Germany) is under exploration.

Passenger transport

In the field of passenger transport, the policy to promote the development of infrastructure for environmentally sound transport modes includes:

A

Promotion and facilitating of "combined" transport (bicycle - public transport - car pool; car - public transport)

A

One national phone number for integrated information for public transport users

A

Dynamic public transport information

A

Automatic parking facilities for bikes and cars

A

Teleworking

P

The development of "transferia", i.e. places where the change from inter-urban to urban modes of transport (and v.v) will be facilitated.

U

Possibilities for underground infrastructure are being studied.

NORWAY

This answer concentrates on measures to promote environmentally-benign goods transport. Public transport is dealt with in question 28.

A

The considerable increase in rail investments, see question 23, is partly directed towards developing rail transport as a mode for long-distance freight transport.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

A small transport system like ours has no possibilities for implementation of sound transport modes.

Replies to Question no. 28

CZECH REPUBLIC

Measures are incorporated in "Strategic Transport Policy for the Nineties" and in "State environmental policy", namely in its Action programme. Policy of subsidies tends to electric light-rail urban transport and is covered by the governmental resolution.

DENMARK

The state has pools, which is funding (co-financing) local authorities and public transport companies which are developing cleaner public transport systems.

FRANCE

Des études seront entreprises sur l'intérêt de permettre aux collectivités locales concernées de percevoir, si elles le souhaitent, des ressources financières nouvelles pour contribuer au financement des transports publics. Ces ressources pourraient provenir d'une tarification de l'utilisation des véhicules en agglomération, dans la mesure où cette utilisation est responsable du coût élevé des transports collectifs et où elle bénéficie de l'amélioration du trafic routier rendue possible par le développement de ces transports collectifs. Cette tarification pourrait consister notamment en l'utilisation d'un péage urbain ou en un taxe sur les places de stationnement.

Le Gouvernement français aide financièrement la réalisation de nouveaux réseaux de transport en commun de passagers. Le versement transport à la charge des employeurs contribue au financement des infrastructures et au fonctionnement des réseaux urbains de transport en commun.

FINLAND

A

The government often pays a substantial part of public transport infrastructure investments.

MALTA

Due to the size of Malta, decisions until recently were made by the central Government.

Decentralization to Councils is the new concept to distribute responsibilities in all sectors including transport infrastructure.

NETHERLANDS

A

In 1993 a project on less polluting and more energy efficient transport in towns made its full start. In this project research, development, experimental and stimulation are combined, promoting environmentally friendly forms of public transport and transport of goods, in towns.

Until 1988 for the project a yearly amount of about 15 million dft has been reserved.

NORWAY

A

Local and regional authorities play an important part in the process connected to the 4-year road- and road traffic plans presented by the Goverment. The planning budget for investments in the national road system may also be used for infrastructure for public transport if this is given priority by local and regional politicians. This opportunity is particulary interesting in a few large (on the Norwegian scale) cities where rail transport may be an alternative. A planned lengthening of a light-rail line in Oslo will be financed from the budget for national roads.

A

Grants ear-marked for public transport investments (only infrastructure) in the four largest city-regions and funds for testing new public transport solutions (see Question no.23).

SWEDEN

Apart from special involvement in the three metropolitan cities, governmental participation is relatively small as regards direct support for work of local authorities.

National government support is more to be seen as a general support, concerned mainly with developing new "bus technology".

Several large R & D projects are in progress which may eventually show the local authorities which technology is most suitable for clean public urban transport.

One programme (MSEK 120) is concerned with testing biofuel technology public buses.

The other programme (MSEK 120) is concerned with testing electrical and hybrid bus technology for buses.

So far these two programmes have suggested the possibility of devising much better bus technology than at present.

A further support for local and regional authorities is the availability of direct national government support, e.g. for investments in bus terminals, etc. This support can be provided to facilitate the replacement of

environmentally inferior solutions with better ones at nodal points in transport systems.

SWITZERLAND

Afin d'améliorer la fluidité du trafic dans les agglomérations, la Confédération peut, selon l'Ordonnance sur la séparation des courants de trafic, accorder des contributions représentant 40 % des coûts imputables pour:

- le déplacement de voies de chemin de fer et de tramway ou de routes;
- la séparation du trafic privé des transports publics routiers;
- les mesures d'organisation permettant de séparer les courants du trafic (par exemple voies réservées aux autobus, régulation électronique du trafic).

S'il en résulte une amélioration sensible de la fluidité du trafic dans certaines rues, la Confédération peut également accorder des contributions pour:

- des objets importants des lignes RER situées au centre des villes, ainsi que pour des rues de délestage du noyau urbain;
- la jonction des parties des transports publics non reliés entre elles ou qui le sont insuffisamment, ainsi que pour des parties du réseau routier supérieur.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

The Government encourages the local authorities to develop a clean public urban transport system through financial support and participates in the modernization of local road network.

Replies to Question no. 29

CZECH REPUBLIC

Feasibility studies of projects comprise as an integral part the evaluation of project impact on the environment. In the Czech Republic the EEC Directive 85/337 is taken into account. This Directive fixes the process of project impact assessment to be taken into account in the approval procedure. On the basis of this Directive the following Acts have been elaborated:

17/1992 Act on the Environment Protection

224/1992 Act on the Environment impact assessment

114/1992 Act on Nature and Landscape Protection.

According to the statistics of the Ministry of Environment the majority (33 per cent) of roads have been evaluated according to the Act 224/1992.

FRANCE

Elles sont de plusieurs sortes: choix d'un tracé évitant les "zones sensibles", technique de tranchée ouverte ou couverte voire tunnel, viaduc, murs antibruit, insertion paysagère, revêtement de chaussée absorbant le bruit, drainage et traitement des eaux de ruissellement de la chaussée...

FINLAND

A

EIA legislation was introduced in 1994. See also page 13 of annex 5 to the replies to the questionnaire.

GERMANY

A

En règle générale, la planification des infrastructures fédérales de transport repose sur une procédure à trois étapes:

1ère étape:

- Plan des infrastructures fédérales de transport en tant que manifestation de la volonté du gouvernement fédéral et base de décision pour
- la Loi fédérale sur l'aménagement des voies ferrées et/ou la Loi fédérale sur l'aménagement des grandes routes fédérales en tant que constatation de la nécessité par le législateur (justification du plan).

2ème étape: Aménagement du territoire

- Coordination au niveau des autorités responsables de l'aménagement du territoire d'un Land pour le projet établi.

3ème étape: Arrêt du plan/approbation du plan

- Détermination du la législation applicable en matière de construction civile.

Plus la concrétisation du projet avance, plus certains aspects environnementaux gagnent de l'importance, à commencer par :

- des études de sensibilité écologiques et des évaluations du risque dans le cadre de la planification, des infrastructures fédérales de transport;
- des études d'impact sur l'environnement;
- et jusqu'à la définition et la prescription de mesures détaillées de compensation et de remplacement pour la protection de l'environnement par le biais de l'approbation du plan.

MALTA

A proposal for the reconstruction of the main bus terminus, which is currently located in an environmentally sensitive area, is being projected. The new design will enhance the area from an environmental point of view as well as provide a vital social service.

NETHERLANDS

Measures to reduce the environmental impact can be ranged as follows:

A

Stimulating environmental modes of transport minimizes the need for environmentally undesired modes.

A

Good spatial planning minimizes the effects.

A

New infrastructure (e.g. rail) is brought together with existing infrastructure (e.g. road) which minimizes the "new" effects.

A

The use of tunnels or screens minimizes land use and/or noise.

A

Restrictions to construction and use of new infrastructure minimizes noise and air pollution ("silent" concrete, speed limits).

A

For spilled oil products cleaning and drainage systems are in use.

A

For construction recycled materials are often used.

NORWAY

A

The Planning and Building Act requires special assessments of impacts on the environment, economy and society as part of planning road-or rail investments amounting to more than 200 millions NOK over an 8-year period. Such assessments should also be carried out for building or expansion of most airports. The Norwegian system is to a large extent similar to the EU directive on EIAs.

A

There are guidelines for road traffic noise and for building in noisy areas near airports. These guidelines are given for planning according to the Planning and Building Act.

U

Similar guidelines for construction of new railways or development in areas adjacent to existing railways.

A

Considerable amounts of money are spent on abatement measures (mainly noise reduction) along existing and new railways and national roads. The national roads plan for 1994-1997 suggests that more than 500 millions NOK should be used to improve environmental conditions near existing national roads. In comparison the total planned investment in national roads financed from the State Budget is 17.2 billions NOK.

SLOVENIA

The Act on the Protection of the Environment requires environmental impact assessment.

SWEDEN

The bases of the measures are outlined in the Roads Act. It states that all projects must be subject to an environmental impact assessment. The assessment must also contain measures to reduce the environmental impact of the project. On a large scale all County Administrative Boards are working on regional traffic and environmental analyses as foundations for a detailed programme for an environmentally adapted traffic system in the various parts of the country (see the answer to question no. 32).

Within the framework of the EIA, the effect of infrastructure on biological diversity has to be covered. In recent years several projects have been

changed or relocated due to suspected effects on habitants of endangered species.

A large number of endangered plant species that due to modern agriculture have disappeared from cultivated land today generally are found along the roadside. Therefore, the Swedish Road Administration has on request from the Government now initiated a special programme to preserve and develop the botanical values of the roadside flora.

SWITZERLAND

Les pollutions atmosphériques, le bruit et les vibrations sont limités par des mesures prises à la source (limitation des émissions) dans la mesure où le permettent l'état de la technique et les conditions d'exploitation et pour autant que cela soit économiquement supportable.

Les émissions sont limitées par l'application des valeurs limites d'émissions, des prescriptions en matière de construction ou d'équipement, des prescriptions en matière de trafic ou d'exploitation, des prescriptions sur l'isolation thermique des immeubles, des prescriptions sur les combustibles et carburants.

En ce qui concerne les immissions, des valeurs limites sont fixées de manière à ce que, selon l'état de la science et l'expérience, les immissions inférieures à ces valeurs ne menacent pas les hommes, les animaux et les plantes, n'endommagent pas les immeubles et ne portent pas atteinte à la fertilité du sol, à la végétation ou à la salubrité des eaux.

En ce qui concerne le matériel roulant et l'infrastructure de transport, les mesures suivantes de protection de l'environnement sont notamment prévues:

Bruit

- limitation des émissions provenant du matériel roulant (p. ex. types de freins);
- limitation des émissions provenant de l'exploitation (p. ex. réduction de la vitesse des trains bruyants, utilisation de matériel roulant silencieux);
- ouvrage de protection (p. ex. parois et fenêtres antibruit).

Mesures visant à limiter les conséquences des accidents majeurs

Voir Question no. 31.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

In major transport infrastructure projects, a chapter on environmental problems is foreseen.

TURKEY

Major transport infrastructure projects have been designed according to Environmental Impact Assessment Regulations which were published in Official Gazette no. 21488 on 7 February 1993.

In this regulation,

- large infrastructure projects,
- highways, express roads, tunnels, bridges, by-passes,
- interurban railways and related bridges and tunnels,
- large harbours,
- airports

are taken into consideration.

Replies to Question no. 30

CZECH REPUBLIC

In general, it compares construction and operational costs. In the 244/92 "Multimodal evaluation" act the majority of problems are solved by the EIA process.

FRANCE

Les performances respectives des différentes infrastructures s'évaluent désormais sur la base des critères environnementaux suivants:

1. Critères écologiques

- emprise au sol, remembrement
- surfréquentation
- bruit

- pollutions permanentes et accidentielles des milieux
- pollution atmosphérique
- accidents, sécurité
- érosion
- intrusion visuelle

2. Critères économiques

- taux de rentabilité
- gain de temps
- sécurité du transport
- retombées pour la région en nombre d'emplois gagnés
- désenclavement

FINLAND

A

Mainly cost-benefit analysis and EIA.

GERMANY

Les évaluations des projets selon des critères comparables constituent le deuxième éléments, à côté des prévisions de transport globales, d'une coordination de la planification des infrastructures de transport pour les modes de transport "route", "rail" et "voies navigables". Pour cette raison tous les projets majeurs de construction nouvelle et d'aménagement sont soumis à une évaluation uniforme selon des critères.

- macroéconomiques;
- écologiques;

- urbanistiques (uniquement les grandes routes fédérales) et d'autres.

L'obligation de peser le pour et le contre implique qu'aucun de ces critères ne pourra jouir d'une priorité absolue.

MALTA

The criteria used is the Environment Protection Act regulated by the Planning Authority in accordance with the Structure Plan for the Maltese Islands.

NETHERLANDS

A

Large-scale infrastructure projects in the Netherlands are subject to the legislation of Environmental Impact Assessment (EIA). The environmental impacts of the construction of an infrastructural project must be described in an Environmental Impact Statement (EIS).

In the EIA-procedure in the Netherlands for each specific project separate guidelines are given for the contents of the EIS. The assessment of the environmental impacts of the specific project is made according to the guidelines. In this way the guidelines contain the criteria for the assessment. In fact the guidelines are never the same: each project has its own guidelines. However, since there is already a large amount of experience with EIA for infrastructure projects, some criteria are relatively standard.

Sometimes for large-scale projects a separate Economic Impact Assessment is made. However, this is not obligatory by law.

Next to the legislation on EIA there is also a specific law on Infrastructure projects. This law also gives rules regarding what (environmental and infrastructural) aspects must be described in the document that is prepared for the decision-making on the project.

NORWAY

A

The Public Road Administration, the Norwegian State Railways and the Civil Aviation Administration conduct thorough and comprehensive analyses of consequences as a basis for almost all investment - and building decisions. Cost-benefit analysis (CBA) is an important part of these consequence analyses which is especially well-established within road planning. The Public Roads Administration has nearly finished a major revision of its system for consequence analysis which among other problems has considered the possibilities for increased integration of environmental impacts in the CBA. Today's CBA only includes environmental costs related to noise. Valuation of pollution costs is regarded as the only possible expansion of the CBA as far as environmental effects are concerned. Other environmental impacts must be described in physical units or qualitatively.

ROMANIA

La conformité avec les niveaux de pollution admis par standards et directives de l'Union européenne.

SLOVENIA

Act on the Protection of the Environment.

It defines the procedure of the assessment of the impact on the environment and the necessity of consensus on the protection of the environment. The procedure evaluates the respect of requirements (air quality, noise level water quality, protection of the vegetation and fauna).

SWEDEN

The investment decisions in Swedish transport policy are made on socio-economic grounds. The political measure is the use of cost-benefit analysis. Evaluations must include the business economics of the transportation companies as well as accident reductions, environmental improvements, passenger and freight cuts in travel time and estimated transfer of traffic from other modes of transport. Some effects, e.g. capacity changes in the transport system, land use patterns and structural changes are of such a nature that a method for calculation is most always available. The socio-economic calculations are based on the technique to compare differences in costs and benefits between two or more scenarios.

We model social and economic effects using a model called EVA. For basic principles of the evaluation, please see the diagrams attached to the reply to the questionnaire. Effects included in the evaluation are: travel time, traffic safety, vehicle costs, environmental pollution and road maintenance costs.

SWITZERLAND

Critères écologiques

Avant de prendre une décision sur la planification et la construction ou la modification d'installations pouvant affecter sensiblement l'environnement, telles que les infrastructures de transport, l'autorité apprécie leur compatibilité avec les exigences de la protection de l'environnement. L'étude de l'impact sur l'environnement s'apprécie d'après un rapport, élaboré par le requérant, qui décrit notamment:

- l'état initial;
- le projet, y compris les mesures prévues pour la protection de l'environnement et pour les cas de catastrophes;
- les nuisances dont on peut prévoir qu'elles subsisteront;

- les mesures qui permettraient de réduire encore davantage ces nuisances, ainsi que leur coût.

Critères économiques

Les grands projets d'infrastructure, comme la NLFA, font l'objet d'une étude d'opportunité. Cette analyse repose sur des critères, tels que l'évolution prévue de la demande de transports, les avantages/inconvénients sur le plan micro-économique et macro-économique comme les gains de temps pour l'usager, les effets sur l'économie régionale et les conséquences environnementales.

En outre, des analyses relatives à la rentabilité et aux moyens de financement disponibles sont également élaborées pour de tels projets. Des renseignements plus détaillés sur les critères retenus pour la décision de construction de la NLFA sont contenus dans le message y relatif (Annexe 14 aux reponses à la questionnaire).

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

In our country global the usual technological and economical criteria are used for the evaluation of infrastructure projects.

Replies to Question no. 31

CZECH REPUBLIC

In this field conclusions are expected from the OCDE/ECMT seminar on Internalization of social costs of transport. At present, the results of the second Pan-European Transport Conference, expressed in its Declaration, are reflected in this area (Crete, March 1994). Charging of external impacts of the transport, based on comparison of road and railway transport, are the subject of the study.

DENMARK

Existing taxation on vehicles covers to a wide extent environmental costs. However, as those are difficult to estimate, the exact relation between costs and revenue is not unambiguous.

FRANCE

Des études ont été engagées en France à partir de 1990 à l'initiative du Conseil Général des Ponts et Chaussées pour examiner la question de l'internalisation des coûts du transport (pollution, bruit, insécurité, congestion).

FINLAND

A

The vehicle and fuel taxes cover a part of the environmental costs of transport. See also page 11 of annex 5 attached to the replies to the questionnaire.

GERMANY

See classification ad Question no. 4.

LIECHTENSTEIN

U

CO₂ and/or energy tax

NETHERLANDS

U

In the Netherlands the costs and benefits of internalization of environmental costs of transport are under examination.

NORWAY

A

There are environmental taxes on the CO₂, sulphur and lead content of petrol and diesel (and some other fossil fuels). In 1994 the taxes are as follows:

- CO₂, see question 18;
- sulphur 0,07 NOK/litre for auto diesel;
- lead 0,66 NOK/litre petrol.

U

Differentiated taxes in toll rings around the four largest cities, see Question no. 21.

U

Differentiated annual vehicle tax according to technology to limit NO_x and other emissions, see Question no. 20.

P

Road pricing as a measure to solve local environmental problems, see Question no. 21.

SWEDEN

The concept of cost responsibility within the transport sector is a basic element in Swedish transport policy since the year 1979. The political measure to implement cost responsibility and to internalise the social costs of transport is the use of economic instruments. Since the year 1988 the charges imposed shall cover the total socio-economic costs. Variable traffic charges shall correspond to short-term socio-economic marginal costs and the fixed traffic charges shall correspond to the difference between marginal costs and the total socio-economic cost.

Of course, it has implications on transport demand and the utilization of the existing transport infrastructure and vehicles, the efficiency of the transport system, the utilization and development of infrastructure and environmentally sound modes and forms of transport, improvement of public transport and the possibilities of steering traffic especially in urban areas.

The structure of taxes and charges is designed in a similar way for the railways, domestic air and road transport. Taxes not justified on transport grounds have been reduced. Examples of economic instruments are carbon dioxide tax on petrol and diesel fuel, differentiated taxes on vehicles and fuels according to environmental classification, environmental charge on domestic air travel.

SWITZERLAND

La Suisse a mené des travaux visant à quantifier certains coûts externes (coûts des accidents, des dégâts aux bâtiments dus à la pollution de l'air,

des atteintes dues au bruit). Les résultats de ces études sont contenus dans la publication 3/93 du Service d'étude des transports que nous vous avons transmis précédemment. Dans une prochaine étape, d'autres types de coûts externes (p. ex. examen plus détaillé des coûts de la santé) seront analysés.

La transformation de l'actuelle redevance forfaitaire sur le trafic des poids lourds en redevance liée aux prestations constitue une première mesure d'internalisation des coûts externes non couverts des camions.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

There are still no measures concerning internalization of environmental cost of transport in the Republic of Macedonia.

Replies to Question no. 32

CZECH REPUBLIC

The 114/1992 Act on Nature and Landscape Protection regulates and in some areas even prohibits activities and investments actions, inter alia, in the transport sector. It is a question of holiday centres, protected natural areas, etc, where construction of production centres is prohibited.

DENMARK

Larger work places are located near existing transport routes.

FRANCE

a) Mesures d'aménagement du territoire au niveau local

La création de villes nouvelles a permis de rapprocher les habitants de leurs lieux de travail en créant des emplois proches des logements, ce qui contribue à réduire fortement la demande de transports dans la vie quotidienne.

b) Mesures d'aménagement du territoire au niveau national

La promotion de réseaux de villes moyennes permettant de regrouper au niveau local l'ensemble des activités complémentaires nécessaires à la qualité de la vie moderne réduit la demande de transport en évitant de longs déplacements vers de villes de grande taille plus éloignées.

Les résultats des mesures prises ne sont pas toujours à la hauteur des objectifs fixés.

FINLAND

A

Dispersion of built-up areas is typical for Finland. Densification within the settlements is needed. Public transport, cycling and pedestrians will be promoted in land-use and community planning. This objective will be intensified by the new Building Act. Land-use planning and EIA will be integrated.

GERMANY

En République fédérale d'Allemagne, les collectivités territoriales compétentes sont tenues de respecter une série de principes pour toutes les planifications relatives à l'aménagement du territoire et aux mesures connexes, qui concernent entre autres "l'utilisation économe et judicieuse des biens naturels, notamment de l'eau et du sol" (para. 8 de la Loi sur l'aménagement du territoire - ROG). A cet effet, les flux de trafic doivent

être conçus et influés de façon à ce qu'ils répondent aux principes de l'aménagement du territoire.

C'est pourquoi le Gouvernement fédéral s'efforce de diminuer dans la mesure du possible les nuisances multiples liées aux activités de transport, voire de les supprimer complètement. Dans le contexte réglementaire, il lui importe avant tout de mettre en oeuvre des séries de mesures, qui d'une part contribuent à éviter des flux de trafic, mais qui d'autre part aident à favoriser ces modes de transport dont les nuisances restent les plus minimes possibles.

Cela signifie pour le domaine du transport de voyageurs p. ex.:

- aménagement des transports ferroviaires à grande distance en vue de la minimisation de la circulation des voitures particulières et du trafic aérien (réseau à grande vitesse, horaires cadencés et coordonnés, tarifs différenciés, etc.);
- encouragement des transports publics dans le but de faire rétrograder le trafic individuel (technologie à plancher surbaissé, park-and-ride, réglementation des places de stationnement, etc.);
- réorganisation de l'espace afin de mieux concentrer les activités principales des citoyens.

Cela signifie p.ex. pour les échanges de biens économiques:

- réduction des trajets à vide par l'emploi de la télématicque;
- aménagement du système des centres logistiques afin de permettre de combiner les modes de transport les plus favorables.

Les objectifs ci-dessus connaissent un soutien efficace par des décisions d'investissement (augmentation des fonds d'investissement pour des mesures d'aménagement telles que l'achèvement des maillons qui font encore défaut, ou l'amélioration de la qualité au lieu de projets de construction nouvelle dans le domaine routier).

Ce système composé de différentes mesures entrelacées de régulation du trafic qui ne sont pas seulement et exclusivement orientées vers la limitation de l'utilisation de l'espace, a pourtant un effet nettement positif sur l'utilisation de l'espace qui est attribué aux activités de transport.

ITALY

The most important measures are related to the right location of stations and "Intermodal Platforms", which mean places of concentration of transport activities. These measures aim at a better "irrigation" of territory and to avoid isolation of places, farther from the "poles" of concentration of economic activities.

MALTA

Decentralisation of Government offices from the capital city. Commercial services, such as banks and shopping areas are also to be decentralised, with the advantage that prices are generally cheaper in outlying areas.

Development of new roads breaking away from the hub and spoke of the main system around Valletta.

NETHERLANDS

In the Dutch National Fourth Policy document on Spatial Planning three types of policy are particularly important for the minimization of transport and travel needs.

A

Urbanization policy is oriented on the concentration of urban growth (new housing, new employment areas) in a specific number of designated urban regions. The first priority for policy is development within existing urban areas, if that is not possible then contiguous to the existing urban areas, and only as a third priority in locations at a distance from the existing urban areas - and then clustered around existing new public transport modes.

A

Urban services and amenities are concentrated in a selected number of urban nodal points.

A

Wherever possible, new businesses and services that attract significant numbers of employees and/or visitors will be sited in locations that can be easily reached by public transport and bicycle. Three types of locations have been selected:

"A locations" situated in the city centres at intercity railway stations where they intersect with underground, tram and bus services. Types of business: relatively large number of employees and/or visitors.

"B locations" situated at the intersection of public transport networks and the motorway network. Moderate labour and/or visitor intensity; moderate car dependency.

"C locations" situated in the immediate vicinity of a motorway exit, in particular near major transport areas. Relatively low number of employees and/or visitors; heavy dependence on motorised private transport.

NORWAY

A

In 1993 the Government adopted national policy guidelines for coordinated land use and transport planning. The objectives are to develop land-use and the transport system to promote an economically efficient use of resources, with

environmentally sound solutions, safe local communities and residential environments, adequate traffic safety and efficient flow of traffic.

ROMANIA

Le projet de loi pour l'aménagement du territoire, dont la section I porte exclusivement sur les voies de communications est en train d'être agréé.

SLOVENIA

Taking into consideration the existing infrastructure, the distance between industrial and dwelling areas in regional planning.

SWEDEN

In the Government bill 1993/94:11 towards sustainable development in Sweden the Government states that different infrastructure projects must be located and designed in a reasonable, broad and long-term societal perspective. The national environmental goals for limiting traffic emissions must be concretised. Land-use planning may influence travelling patterns in the direction of increased efficiency and management of resources. By improving our knowledge of the relation between built-up areas and traffic we can create the foundations for the action required to achieve social development which both reduces the need of transportation and the environmental impact of the transportation sector. A detailed programme for an environmentally adapted traffic system in the various parts of the country must be made. The Government has therefore instructed all County Administrative Boards to draw up regional traffic and environmental analyses as foundations for such a programme. The results of the work is to be presented to the Government in September 1995. The Government will later decide how to develop measures in the Swedish land-use planning system to ensure a sustainable transport system.

SWITZERLAND

L'aménagement du territoire Suisse repose sur le principe de la "décentralisation concentrée". En concentrant les activités (habitat, travail, loisirs) autour de pôles de développement, l'on parvient également à réduire le nombre et la distance des déplacements. En outre, des mesures de gestion du trafic, telles que les zones à 30 km/h, les rues résidentielles, ou encore la modération de la circulation ont été introduites dans un grand nombre d'agglomération.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

The present situation has a negative impact on the economy of the country. Because of that, radical measures to minimize transport are going to be undertaken. One measure is the careful preparation of timetables for road and railway transport in order to rationalize transport.

Replies to Question no. 33

CZECH REPUBLIC

In comparison with other countries, these systems are encountering delay in the Czech Republic but in the new market economy its swift development can be expected. Lack of phone extensions is partially solved by wireless telephone networks and digital exchanges. Urban information systems including transit transport information systems are being built-up in the area of combined transport within the action COPERNICUS as a follow-up of international systems of transit freight transport. An "Information system for preventive and emergency measures in area of mobile sources of danger", elaborated on the request of the Ministry of Transport, is under elaboration.

DENMARK

The Danish Road Directorate is participating in research in telematics, and some projects are implemented on a small scale.

FRANCE

1. Gestion de l'information à destination des usagers de la route

Les deux principaux systèmes mis en service actuellement sont:

- SIRIUS à Paris et dans la région parisienne
- CORALY pour l'agglomération lyonnaise

Les Centres Régionaux d'Information Routière (CRIR) informent les automobiles par l'intermédiaire de Panneaux à Messages Variables (PMV).

Des badges hyperfréquences équipent les conteneurs et les caisses mobiles et aussi les wagons. Ils permettent aux gestionnaires et propriétaires une meilleure gestion des mobiles et donc de leur parc à matériel. Une expérience pilote entre plusieurs partenaires d'une chaîne de transport combiné sera lancée à l'automne 1994. Elle équipera 4000 conteneurs et caisses mobiles. Ceux-ci seront suivis pendant 6 mois sur l'axe Paris-Le Havre, temps pendant lequel sera testée la fiabilité de ces nouvelles techniques d'identification automatique.

FINLAND

A

The development in this area is very fast, but the use of these systems is not widespread yet.

GERMANY

U

L'introduction de la télématic dans le secteur des transports est accompagnée de certaines attentes, parmi lesquelles également la substitution de trafic.

Les systèmes télématiques permettent p.ex.

- de mieux utiliser et/ou d'augmenter la capacité de l'infrastructure de transport actuelle;
- de réduire sensiblement les bouchons, les trajets à vide, les trafics à la recherche d'une destination ou d'une place de stationnement et d'améliorer la gestion des flottes ainsi que la gestion logistique;
- de connecter entre eux les différents modes de transport en vue de rendre plus attrayants les modes de transport plus respectueux de l'environnement;
- de diminuer les nuisances dans les transports;
- de réduire le volume de trafic par la fourniture d'informations avant le voyage;
- d'améliorer la sécurité des transports.

A

Coopération internationale des Etats (p. ex. F, D, UK) dans le domaine des banques de données existantes sur les marchandises dangereuses, leurs incidences en cas de dégagement et les prescriptions de transport en vigueur.

ITALY

Electronic information system on the most important motorways and for traffic regulation. It is completed by TV and radio information.

MALTA

AVL system for public transport. Electronic real time passenger information. Teleshopping.

NETHERLANDS

The Dutch Ministry of Transport and Public Works attaches great importance to an effective information technology (IT) infrastructure.

A

The Government can help accelerate the introduction of IT through information, research and standardization, e.g. by strengthening institutions active in

such areas. It is also intended to support community network services in the implementation of their plans, provided that these are coordinated.

NORWAY

In Norway the development in this field is very little integrated in the transport policy.

SWEDEN

A

Full competition has been introduced in the telecom sector, which include a comprehensive legislation concerning telecommunications and the transformation of the former National Telecom Agency into a corporation.

A

The funding of R&D concerning the development of new communication and information systems was raised considerably in 1993. Data highways, telematics, electronic work, telemedicine, etc. are areas included in the ongoing R&D.

A

The Parliament have decided to earmark 1 billion SEK to stimulate the use of information technology (IT).

A

The Government has appointed a special commission under the Prime Minister in order to investigate the most effective measures to stimulate the use of IT in every sector of the Swedish society.

U

A further increase in R&D regarding information technology has been suggested by the Government commission on IT. Data highways, telematics, electronic work, telemedecine, etc. are included in these plans.

U

A 3-year programme is planned to promote the development of the organization of the public sector by increased use of IT.

U

A major review of the whole legislation to make it more adopted to IT is planned. The goal is to make all necessary adjustments within the next three years.

U

Each municipality is to develop a strategy for the use of IT with special emphasis on the use of IT in the schools.

SWITZERLAND

A partir de 1994, il est prévu d'introduire à l'échelon européen (CEMT/UE/CEN) le nouveau système d'information routière RDS/TMC (Radio Data System with Traffic Message Channel). Ce système permettra de transmettre des informations routières on-line et, de ce fait, d'influencer le déroulement du trafic. La première phase de mise en place du système RDS en Suisse est pour ainsi dire terminée. Pour autant que les ressources financières nécessaires puissent être dégagées, l'extension du système, sur la base TMC, devrait débuter en 1995/1996.

En outre, divers projets visant à coordonner l'information routière au niveau national et à améliorer la qualité de ces informations sont en cours de réalisation.

Finalement, divers projets d'amélioration des systèmes de télécommunication sont prévus. Ils devraient permettre de réduire les flux physiques de transport (p. ex. par le Telebanking et le Teleshopping).

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

The main holder of the development of new communication and information system is Macedonian Automobile Association which covers the highway and regional road network in our country. In its development, this Association aims to collect more information concerning road network through its computer system. Also, the public company "Makedonija-pat" which is responsible for highway and regional roads maintenance, aims to develop its information system with more data.

Replies to Question no. 34

CZECH REPUBLIC

The Government's Council of Road Safety, within the framework of the programme for reducing the number and consequences of traffic accidents in the nineties, approved the following measures:

- to control consequently driving schools by state administration authorities to stop the indulgence and unprofessional approach in drivers' education, to switch to the professionally-pedagogic one;
- to introduce and organize "higher driving schools" for drivers of special vehicles and buses and drivers training in extreme conditions;
- to work up new methods for traffic education in secondary schools that contains a preparation for obtaining driving licences and education for a proper relation between traffic and environment;
- to prepare, produce and implement a broadcast with the view to correcting driving style including use of passive safety elements;
- to distribute information about traffic and the environment and traffic regulations in the European states including publication of informative materials about motorways and road network in the Czech Republic.

The secretariat of the Czech Government's Council for Road Safety is organizing in 1994, under the leadership of the Ministry of Interior an educational campaign aiming at improving relations among users of roads called "Butterfly on Bonet". The campaign is a part of the preparation of the second week of road safety of the UN Economic Commission for Europe scheduled to be held in 1995.

Some further activities are intended for vulnerable traffic participants, especially children.

A new methodology of traffic education at schools has been elaborated. A systematic prevention of use by drivers of alcohol and drugs was considered in cooperation with leading experts.

Attention was given to the domain of road safety by means of organizing safety meetings and their promotion on a local and regional level.

On the basis of trouble incidence of driving beginners a reform of drivers education is being prepared, among others, in recognizing the fact that a decisive factor of successful controlling of vehicles today in very complicated traffic is not a verbatim recitation of legislation but the level of the drivers experience. Unified and obligatory programmes of training should be aimed at the development of creative thinking and traffic intelligence - see the International Organization for Drivers Training INTR-AGAM.

The basic reform will concern an examination system for both the theoretical and practical parts.

DENMARK

Truck drivers:

Minimum drivers license, but normally three years education within one of 5-6 different lines.

Bus drivers:

Minnimum drivers license, but the larger bus companies supply their drivers with various courses.

FRANCE

Le "Programme National de Formation à la Conduite" entré en vigueur en 1989 constitue l'ouvrage de référence en matière de formation du conducteur automobile. Les établissements de formation à la conduite sont tenus d'en faire connaître les dispositions aux apprentis conducteurs.

Une partie de cet ouvrage est consacrée à l'"infrastructure et l'environnement". Concernant les nuisances, il donne des informations relatives à:

- la réglementation sur le bruit et la pollution par les véhicules à moteur.
- la limitation des nuisances engendrées par la voiture.
- l'action des collectivités visant à la limitation des nuisances.
- la manière dont le développement de l'automobile modifie l'équilibre écologique.

FINLAND

U

Environmental aspects will probably be included in the drivers education.

GERMANY

A

Le paragraphe 1 de l'article 30 du Code de la Route (StVO) stipule pour les usagers de la route un comportement respectueux de l'environnement: "L'usage des véhicules ne doit être accompagné de nuisances acoustiques inutiles et de gênes dues aux gaz d'échappement. Il est notamment interdit de faire tourner inutilement le moteur des véhicules et de fermer trop bruyamment les portières. Toute allée et venue inutile de nature à cause une gêne à des tiers est interdite à l'intérieur des agglomérations".

Le paragraphe 1 de l'article 30 du Code de la Route interdit par exemple de faire crisser les pneus prenant des virages à l'intérieur des agglomérations ou de démarrer violemment avec des pneus crissants. Dans de tels cas une nuisance concrète de tiers n'est pas nécessaire. Si le véhicule est à l'arrêt, on dit qu'un moteur tourne inutilement lorsqu'une cause technique suffisante n'existe pas. Cette prescription sert tant à la protection contre le bruit qu'à la protection contre les gaz d'échappement. C'est la raison pour laquelle même un moteur à fonctionnement silencieux doit être coupé immédiatement lorsque le véhicule est à l'arrêt ou lorsqu'il a été stationné - mais pas forcément en s'arrêtant devant des feux lumineux.

Les infractions contre la prescription précitée seront passibles d'une amende.

Mise à jour de la réglementation de l'ADR concernant l'entraînement des conducteurs de véhicules transportant de marchandises dangereuses, spécialisation des cours de formation, garantie d'un niveau d'entraînement élevé et uniforme sur le plan international.

ITALY

Special requirements for driving lorries and buses, corresponding to the EU Directives.

MALTA

Public information films for private motorists with a view to reinforcing certain issues of the Highway Code.

Recent introduction of passenger awareness courses for operators of public service vehicles.

NETHERLANDS

P

Motorists will be induced to purchase smaller and lighter and thus more fuel efficient cars, by fiscal regulations, giving financial incentives for very fuel efficient cars and on the contrary for cars that are less fuel efficient than the average.

Enforcement of speed limits: central policy target is reduction of average highway speed for motor cars from actual 110 km/h to 106/km/h in the medium term.

P

The enforcement of existing speed limits has been and is being improved especially on the highway network (effect: total highway emissions on NO_x and CO₂ have been reduced by 2 resp. 1 per cent).

P

The use of economic instruments to enforce speed limits will be studied.

U

The scope for installing speed governors in private cars and vans will be studied, to assess whether they could form an effective instrument for restricting driving speeds and thus contribute to enforcing existing policy. Speed limiters could form an effective instrument for restricting driving speeds and thus contribute to enforcing existing policy.

In action is the programme to influence the behaviour in purchasing and driving vehicles ("Koop zuinig, rij zuinig") in order to save energy (less CO₂-emission and less air pollutants) mainly focused on private car-users but also on truck-users. The programme costs 2 millions dfl a year, since 1992.

The programme includes different projects:

A

For the users of all vehicles many brochures, leaflets, etc. on energy saving are distributed by intermediate organisations which undersigned the message of the programme.

Passenger cars:

U/P

Econometer: study in the field effects of this instrument are being carried out. Positive results will lead to the installation of an econometer in each new car.

A

Questions on energy saving are part of the driving tests

A

Focusing on smaller cars in order to make a shift in the consumers' preference from larger, more powerful and less fuel efficient cars, e.g. by an exhibition on the compact car.

A

Special courses for improving driving style of experienced drivers

Trucks:

A

Lessons/courses for truck drivers

A

Subsidies for consultants on energy, environment and traffic safety operating within the umbrella organization for transport companies, advising individual companies on these items.

SLOVENIA

Compulsory education and examination (theoretical and practical) of candidates for driving licences.

SWITZERLAND

Mesures concernant la formation des conducteurs

Généralités.

Le permis de conduire est délivré si l'examen officiel a démonté que le candidat connaît les règles de la circulation et qu'il est capable de conduire avec sûreté les véhicules de la catégorie correspondant au permis.

Le "Manuel suisse des règles de circulation", qui contient les bases élémentaires que doivent connaître les candidats au permis de conduire de toutes les catégories pour réussir l'examen théorique, contient aussi, pour la première fois, des remarques qui visent à faire prendre conscience à chacun des problèmes de la protection de l'environnement.

Pratique de la conduite

Le candidat au permis de conduire de la catégorie A doit avoir conduit régulièrement un motocycle de la catégorie A1 pendant deux ans au moins.

La candidat au permis de conduire de la catégorie D1 doit avoir conduit régulièrement une voiture automobile de la catégorie B ou D2 pendant un an au moins.

Le candidat au permis de conduire de la catégorie D doit prouver que, dans les deux ans antérieurs à sa candidature, il a conduit un camion pendant une année au total.

Formation des conducteurs

1. Législation actuelle

Depuis le 1er janvier 1993, le candidat au permis de conduire doit suivre un cours de sensibilisation aux problèmes de trafic, d'une durée de huit heures, chez un moniteur de conduite. Ce cours vise notamment à développer le sens de la circulation et les facultés à percevoir les dangers, afin d'amener l'élève conducteur à circuler d'une manière défensive, en faisant preuve d'égards et de sens des responsabilités.

L'élève motocycliste (cat.1) doit d'une part, dans les deux mois qui suivent la délivrance du permis élève conducteur, suivre une instruction pratique de base d'une durée de huit heures auprès d'un moniteur spécialisé dans l'enseignement de la conduite de motos. Pour être apte à conduire dans le trafic, les connaissances de base de la dynamique de la conduite, de la technique d'observation et de la maîtrise du véhicule sont enseignées lors de cette instruction pratique.

2. Législation à l'étude

En plus des prescriptions déjà en vigueur, nous étudions la possibilité d'introduire un système de formation en deux phases. La première prévoit une formation de base (la même que celle dispensée à l'heure actuelle) et qui

s'achèverait par l'examen théorique et pratique ainsi que pour la délivrance d'un "permis de conduire à l'essai". La seconde phase consisterait en une période probatoire comportant deux volets:

- un cours de formation obligatoire à suivre dans un certain laps de temps (qui doit encore être défini) à compter de la date d'obtention du "permis à l'essai";
- un délai d'épreuve (dont la durée doit également être déterminée) durant lequel le conducteur qui a compromis la sécurité routière par des infractions aux règles de la circulation pourrait faire l'objet non seulement des sanctions et mesures usuelles (p. ex. retrait du permis de conduire), mais pourrait encore être appelé à suivre un cours de formation supplémentaire, voire repasser son permis de conduire.

Le permis de conduire "définitif" ne serait délivré qu'au terme de cette seconde phase.

Formation complémentaire

Les conducteurs qui, de façon réitérée, ont compromis la sécurité routière en violant les règles de la circulation, peuvent être appelés à suivre un cours d'éducation routière.

Par ailleurs, tous les conducteurs de voitures automobiles et les motocyclistes ont la possibilité de suivre, à titre facultatif, des cours de perfectionnement auprès de diverses organisations privées.

SWEDEN

Basic environmental knowledge is today acquired through both compulsory and upper secondary schools having a duty of transmitting extensive environmental knowledge to their pupils. This approach will serve in the long term to generate a growing awareness of the importance of the environment to society.

Swedish driving licence instruction includes a relatively small portion of instruction concerning disruptive effects of traffic on the environment. However this will eventually be improved.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

In connection with the measures concerning driver's education there is a permanent education of the driver's staff with new regulations, especially in the field of safety traffic. There is a Republic Council for security traffic which is responsible for developing the system of prevention measures for security traffic and education of the children and youth.

Replies to Question no. 35

CZECH REPUBLIC

A strict selection of drivers for these activities, technical regulations warranting the high safety level, more strict frontier controls to stop the camouflages of the transported goods.

Within the framework of the project of the Ministry of Transport an "Information System for Preventive and Rescue Measures in the Field of Dangerous Goods Sources" has been solved which covered all activities in the domain of transport of dangerous goods, specially in road traffic.

Law no. 111/94 has entered into force on 1 August 1994 fixing the principles for the transport of dangerous goods, the duties for transporters, regime of transport permits and written instructions used in case of accident or in emergency events for transport of all dangerous goods. In comparison with decree no. 84/92, this law contains some changes.

A law on prevention and elimination of accidents has been prepared for adoption by the Ministry of Environment of the Czech Republic. In this draft an integration rescue system is foreseen and the principles, duties, and rights in the field of prevention are set out.

On the basis of the experience of foreign legislation a possibility to appoint the "Authorized representatives for Dangerous Goods" are considered. Their activity should substantially contribute to improvement of safety in this field.

DENMARK

Denmark is following the internationally agreed ARD Convention.

Education of drivers.

FRANCE

La réglementation française pour le transport des matières dangereuses reprend, par souci de cohérence, de clarté et d'efficacité, l'essentiel des dispositions existant dans les accords internationaux. Ainsi, en septembre 1992, le RTMDR (règlement pour le transport des matières dangereuses par route) a été "aligné" sur l'ADR, et, en juin 1994, le RTMDF (règlement pour le transport des matières dangereuses par voie de chemin de fer) a été "aligné" sur le RID.

Toutefois, lors de ces "alignements", quelques mesures spécifiques ont été gardées, ou introduites, afin d'augmenter la sécurité de ces transports.

Les principales mesures spécifiques à la réglementation française sont les suivantes:

1. Obligation de répondre à la norme ISO9002 (norme sur l'assurance-qualité), pour les transporteurs effectuant des transports particulièrement dangereux (transport routier national uniquement).

Après plusieurs mois de discussions avec les industriels et les transporteurs concernés, cette obligation a été introduite dans la réglementation française en septembre 1992, et est entrée en vigueur en mars 1994.

Cette mesure réglementaire était ambitieuse, puisqu'elle devait obliger les transporteurs concernés à formaliser l'ensemble de leurs procédures concourant à fournir à leurs clients des prestations "de qualité" (et donc, en particulier, les procédures concourant à la sécurité du transport), puis à subir un audit de l'Association Française pour l'Assurance de la Qualité.

De nombreux transporteurs (une centaine environ) ont achevé cette procédure de certification dans les délais. Ces transporteurs sont de tailles très différentes (de quelques camions, jusqu'à plusieurs dizaines).

Aujourd'hui cette opération est considérée comme un succès, et une extension de la liste des transports "hautement dangereux" concernés par cette obligation est en préparation.

2. Introduction d'une durée minimale pour la formation du conducteur, variable suivant la spécialisation (transports routiers uniquement, qu'ils soient nationaux ou internationaux)

En complément des généralités définies à l'ADR sur la formation des conducteurs, la réglementation française définit 7 "spécialisations" (transports d'explosifs, transports de gaz en citernes, transports de liquides inflammables en citernes, etc.), et définit les durées minimales de ces spécialisations.

L'objectif visé est, comme il est de mise pour toutes les formations déléguées (ou délégables) au secteur privé, de s'assurer que les conditions minimales de bon déroulement de ces formations sont réunies. Etant donné qu'il n'est pas apparu souhaitable de définir le programme détaillé de telles formation, ou encore le niveau de difficulté minimal de l'examen prévu par la réglementation (ADR ou RTMDR), la seule solution pour imposer des conditions minimales de bon déroulement des formations s'est avérée de réglementer leurs durées. Cette façon de faire donne aujourd'hui toute satisfaction.

3. Définition des responsabilités respectives du transporteur, du donneur d'ordre et du chargeur

Afin de mieux responsabiliser les différents intervenants impliqués lors d'une même opération de transport, il a été jugé nécessaire de clarifier dans la réglementation française (RTMDR et RTMDF), les différentes tâches incombant à ces intervenants. Une telle mesure existait déjà dans la réglementation française avant son alignement sur l'ADR ou le RID. Elle se superpose à l'ADR et au RID lorsqu'il s'agit de transports internationaux.

L'objectif poursuivi est en particulier d'éviter que, sous l'effet d'un concurrence trop vive, le donneur d'ordre refuse d'assumer des responsabilités qui lui incombent en toute logique. Avec une telle mesure réglementaire, il

devient très rare de trouver des infractions graves, telles que le chargement dans des citernes non homologuées pour les matières effectivement chargées.

FINLAND

A

Finland is bound by numerous international agreements on the transport of dangerous goods.

A

Some important groundwater areas are being protected from the effects of salting of roads. This is also protecting these areas from the consequences of accidents with dangerous goods.

GERMANY

Mise à jour continue de l'Accord ADR existant en tenant compte des découvertes les plus récentes de la science et de la technologie et en veillant à l'harmonisation intermodale des réglementations relatives aux marchandises dangereuses. Amélioration des exigences techniques aux véhicules affectés au transport de marchandises dangereuses (notamment les véhicules-citernes), exigences harmonisées en ce qui concerne les moyens de transport multimodaux.

Elaboration d'un accord européen relatif au transport de marchandises dangereuses par voies navigables (ADN).

Amélioration des règlements de l'ADR relatifs à l'entraînement des conducteurs de véhicules transportant des marchandises dangereuses, spécialisation des cours de formation, garantie d'un niveau de formation élevé et uniforme sur le plan international.

Harmonisation internationale du contrôle des transports de marchandises dangereuses et amélioration de la poursuite des infractions relevées.

Introduction au niveau international de préposés à la prévention des risques inhérents au transport de marchandises dangereuses ayant une formation approfondie qui veilleront, à l'intérieur des entreprises, au respect des prescriptions relatives aux marchandises dangereuses.

Coopération et échange d'informations entre les banques de données nationales qui comprennent des données sur le transport de marchandises dangereuses et les risques connexes.

Collecte et traitement de données sur des accidents impliquant des matières dangereuses, leurs conséquences et leurs causes; information rapide des Etats contractants de l'Accord ADR en cas d'accidents graves.

ITALY

For the time being the ADR is applied awaiting a ministerial decree. Measures of accident prevention are in conformity with the ADR prescriptions.

NETHERLANDS

In general the Netherlands actively incorporate international regulations on the safe transport of hazardous material. For some issues national regulation is required.

In the case of water transport the steps being taken include

P

The revision of the regulations governing Rhine traffic.

P

The European-wide harmonization of the regulations governing the continent's inland waterways.

P

An investigation into the scope for using more double-walled tankers on inland waterways.

P

A code for the securing of cargoes on seagoing vessels and safer transhipment regulations.

P

Steps will also be taken to promote the development of expertise in the transport of hazardous materials and in particular to ensure that industry applies the best knowledge and skills.

P

An active policy of information/education will be maintained.

P

Furthermore, risk management will be promoted (surveys, research, safety standards, obligation to inform authorities of incidents). Finally, encouraging the use of information technology.

A/P

An IT system is being introduced to improve the way accidents are dealt with. This will help to reduce the environmental damage and risks caused by such accidents. Thus, steps (in close consultation with local government) are needed to ensure safer use of the infrastructure (routing requirements, creating a national network, developing a licensing policy for road routing, liberalizing transport through tunnels, extending the list of goods to be routed).

NORWAY

Carriage of dangerous goods by road is governed by comprehensive regulations, and accidents with severe environmental consequences are rare. The regulations are continually being updated through work carried out by the competent international organizations, and there seems to be no need for a radical new approach to the issue.

ROMANIA

La Roumanie est partie contractante aux principaux accords internationaux dans le domaine du transport international de marchandises dangereuses. On a l'intention d'appliquer ces accords en trafic interne aussi.

SLOVENIA

The following measures are taken:

education of drivers;
designation of itineraries for transporting dangerous goods;
designation of parking places;
organization of fire brigades;
control of carriers.

SWEDEN

County government may restrict the transport of dangerous goods from certain roads with reference to risk of damage to people or to drinking-water supplies.

The Road Administration has started a survey in order to identify the more important drinking-water supplies that are subjected to a risk of damage by accidents involving dangerous goods.

Directives on protective measures of such sites are under way. Lining and holding ponds are examples of methods to be used.

SWITZERLAND

Afin de réduire les risques liés aux transports de marchandises dangereuses, les mesures suivantes sont prévues en Suisse:

Mesures visant à empêcher les accidents majeurs

- analyse du risque du transport par les entreprises ferroviaires et compte rendu à l'organisme de surveillance;

- application des accords internationaux relatifs aux transports de marchandises dangereuses (RID/ADR) et mise à jour des prescriptions concernant la formation des trains, l'élaboration de l'horaire ainsi que le chargement et la manœuvre des wagons de marchandises;
- formation des employés concernés par le transport de marchandises dangereuses;
- contrôles systématiques du matériel roulant et de l'infrastructure utilisée;
- système d'information sur les marchandises dangereuses transportées;
- contrôle par sondages des marchandises transportées;
- organisation appropriée du système d'alarme;
- coordination des services régionaux d'intervention et réalisation d'exercices périodiques en commun avec les services d'intervention publics sur la base des plans d'intervention;
- évaluation des rapports d'accident avec pour objectif l'amélioration de la sécurité dans le futur.

Mesures limitant les conséquences des accidents majeurs:

- installation de drainage dans les tunnels, les gares et la pleine voie;
- installation de rétention pour des liquides pouvant altérer les eaux ainsi que les moyens de traitement ou d'évacuation des liquides retenus;
- dispositifs de mesures, de communication et d'alerte, tels p.ex. téléphone de surveillance des trains, radio de gare, radios sol-trains, installations automatiques d'annonce des trains, détecteurs thermiques.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

We aim to carry out the existing Conventions and regulations concerning the transport of dangerous goods and in that way to prevent accidents and to diminish their consequences.

Replies to Question no. 36

CZECH REPUBLIC

The Czech Republic Government's regulation no. 17/1992 determines the admissible level of water contamination.

The requirements on water quality protection are mentioned in notice no. 6/1977. Here, both the dangerous substances and the accident prevention duties are specified. This document is a basis for regulations M 32 and SR 52 (M).

For handling with waste law no. 238/1991 is valid. The import and export and transit of waste through the Czech Republic are admissible only with the approval of state administration authority.

Systematic searching for and removing of critical places on road sections with high accidents frequency - 40 per cent of traffic accidents are registered on 3 per cent of length of the road system.

A substantial increase in traffic qualification and traffic social awareness - also in relation of all citizens to the environment.

FINLAND

U

In the environmental programme of the Ministry of Transport and Communications, public awareness of the environmental questions of transport is one of the issues.

GERMANY

Le ministère fédéral des transports, le ministère fédéral de l'économie et le ministère fédéral de l'environnement, de la protection de la nature et de la sécurité des réacteurs ont lancé des actions communes dans le cadre d'une campagne compréhensive d'information et de sensibilisation. En 1993 le ministère fédéral des transports a publié une brochure intitulée "Weniger Co₂ im Verkehr - machen Sie mit" ("Moins de Co₂ dans les transports - on compte sur vous"), la même année le ministère fédéral de l'économie a édité la brochure d'information "Mehr Kilometer mit weniger Benzin" ("Plus de kilomètres avec moins d'essence"). Le ministère fédéral de l'environnement a lancé cette année (1994) une campagne d'information ayant comme sujet le comportement compatible avec l'environnement "Rund ums Auto" ("L'automobile et vous"), laquelle se sert d'affiches et de tracts pliables.

Ces actions ont pour but d'informer notamment les usagers de la route sur un style de conduite économique, sur les offres alternatives des transports publics et de façon générale sur une utilisation plus consciente de la voiture particulière.

De même, une brochure d'information du ministère fédéral des transports au

sujet de la circulation de bicyclettes contribuera à attirer l'attention des responsables sur place sur cette forme de mobilité.

LIECHTENSTEIN

U

Speed limit reduction in different settlements.

NETHERLANDS

Not essential traffic: In Dutch transport policy "not essential traffic", such as commuter transport and "leisure" transport by private car will be discouraged, so as to make way for essential traffic such as transport of goods and traffic for business purposes. In congested areas for example special measures will be taken to enable lorries, shared cars and buses to by-pass traffic jams.

A/P

Where possible separate lanes for goods vehicles, buses and shared cars have been and will be introduced. The number of carshare-places will be increased and better methods will be developed to bring potential car-sharers together.

A/P

Cooperation between local and regional authorities ("Transport regions").

A/P

Cooperation between public transport companies.

A/P

Company transport reduction and management plans.

A/P

Restructuring financing mechanisms.

A/P

Enforcement programmes.

A/P

Research coordination.

NORWAY

U

An intergovernmental working group has proposed Norwegian regulations pursuant to the Pollution Control Act, with mandatory limit values for noise and the air pollutants NO₂, SO₂, PM and lead. The regulations are expected to enter into force early in 1995. These regulations will bring Norwegian regulations in conformity with the EC directives on air quality. The government has not yet decided whether the Norwegian limit values will be more stringent than the existing minimum limit values in the relevant EU-directives.

ROMANIA

Les programmes scolaires applicables à l'enseignement pre-universitaire obligatoire contiennent le sujet d'étude : "Ecologie et protection de l'environnement" pour une année d'études.

SWEDEN

An extensive travel-pattern survey is being started.

Information to road-users about the environmental impacts of road transport and simple measures they themselves can take to improve the environment.

Several projects aimed at increasing insight into the spread of air pollution in urban areas, and the cost to the community of effects on health from road traffic.

An investigation on the potential and cost to the community of measures designed to reduce emissions.

A programme on the use of physical protection measures to reduce road traffic noise in existing housing environments.

A programme for relieving people from noise along state roads. Planned measures for 1994 will relieve 3900 people from noise levels above 65 dBA.

SWITZERLAND

Education du public

Le Conseil de la sécurité routière a décidé de coordonner les efforts des clubs et organisations traitant des problèmes de circulation, en vue de renforcer la promotion de la sécurité routière parmi les adolescents. En outre, des modifications ont été apportées au matériel scolaire existant. On y présente notamment les différents points de vue quant aux avantages et aux inconvénients de la circulation routière. L'accent est mis en premier lieu sur le comportement dans la circulation et sur la manière dont on fait face au problème du déplacement, plutôt que sur l'apprentissage des règles. On y traite aussi de la question du choix des modes de transports les mieux adaptés, de leurs avantages et des inconvénients respectifs en termes de dépenses, du temps de parcours requis, d'émissions sonores et de dommages infligés à l'environnement.

L'inclusion des aspects relatifs à la protection de l'environnement a comme effet à court terme de rendre l'enseignement de la sécurité routière plus attrayant et de développer l'activité en ce domaine. Cela signifie que l'on entend faire participer activement des adolescents et des enseignants à la réflexion sur des problèmes quotidiens de la société: ceux de la sécurité routière ainsi que des problèmes de mobilité, d'environnement, de santé et d'hygiène de vie.

SWEDEN

An extensive travel-pattern survey is being started.

Information to road users about environmental impact of road transport and simple measures which can contribute to improve the environment.

Several projects aimed at increasing understanding of the propagation of air pollution in urban areas, and the cost to the community of effects on health of road traffic.

An investigation on the potential and cost to the community of measures designed to reduce emissions to air.

A programme on the use of physical protection measures to reduce road traffic noise in existing housing areas.

A programme for relieving people from noise along state roads. Planned measures for 1994 will relieve 3,900 people from noise levels above 65 dBA.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

Other measures for carrying out the regulations, etc. are mainly penal measures which are carried out by the police.
