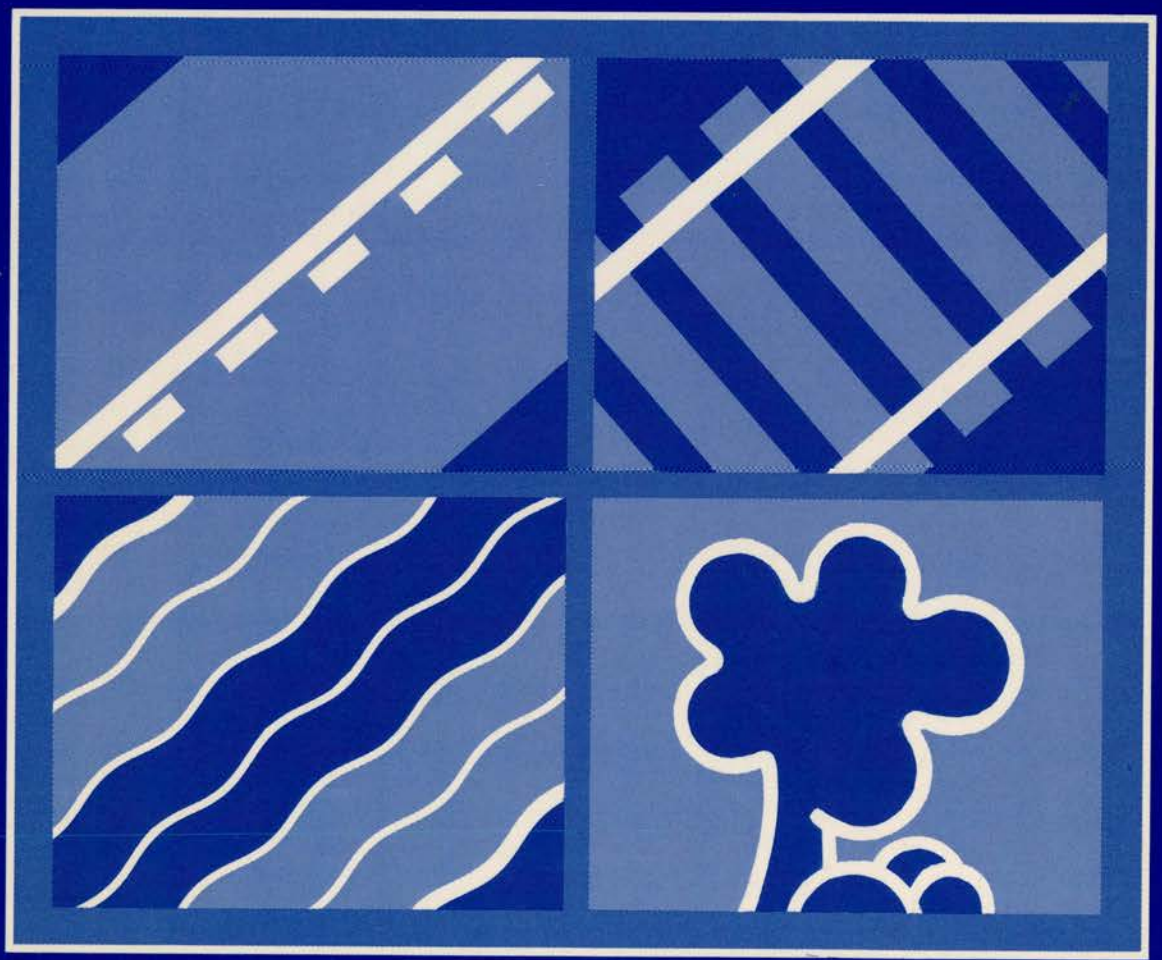
EUROPEAN CONFERENCE OF MINISTERS OF TRANSPORT

39th Annual Report – 1992

ACTIVITIES OF THE CONFERENCE

RESOLUTIONS OF THE COUNCIL OF MINISTERS OF TRANSPORT AND REPORTS APPROVED IN 1992



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Athens, 11th and 12th June 1992
Paris, 26th November 1992

THE EUROPEAN CONFERENCE OF MINISTERS OF TRANSPORT (ECMT)

The European Conference of Ministers of Transport (ECMT) is an inter-governmental organisation established by a Protocol signed in Brussels on 17th October 1953. The Council of the Conference comprises the Ministers of Transport of 30 European countries[1]. The work of the Council of Ministers is prepared by a Committee of Deputies.

The purposes of the Conference are:

a) to take whatever measures may be necessary to achieve, at general or regional level, the most efficient use and rational development of European inland transport of international importance;

b) to co-ordinate and promote the activities of international organisations concerned with European inland transport, taking into account the work of supranational authorities in this field.

The matters generally studied by ECMT - and on which the Ministers take decisions - include: the general lines of transport policy; investment in the sector; infrastructural needs; specific aspects of the development of rail, road and inland waterways transport; combined transport issues; urban travel; road safety and traffic rules, signs and signals; access to transport for people with mobility problems. Other subjects now being examined in depth are: the future applications of new technologies, protection of the environment, and the integration of the East European countries in the European transport market. Statistical analyses of trends in traffic and investment are published each year, thus throwing light on the prevailing economic situation.

The ECMT organises Round Tables and Symposia. Their conclusions are considered by the competent organs of the Conference, under the authority of the Committee of Deputies, so that the latter may formulate proposals for policy decisions to be submitted to the Ministers.

The ECMT Documentation Centre maintains the TRANSDOC database, which can be accessed on-line via the telecommunications network.

For administrative purposes, the ECMT Secretariat is attached to the Secretariat of the Organisation for Economic Co-operation and Development (OECD).

1. Austria, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, and the United Kingdom. (Associate Member countries: Australia, Canada, Japan, New Zealand, the Russian Federation and the United States. Observer countries: Moldova, Morocco.)

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INTRODUCTION

OUTLINE OF THE STRUCTURE AND PROCEEDINGS OF THE CONFERENCE

As the organisational chart in Annex I shows, aside from the Council of Ministers itself and its Committee of Deputies, the Conference has three types of working unit, and the following were active in 1992:

Standing Committees and Groups

- Economic Research Committee
- Committee for Road Traffic, Signs and Signals
- Road Safety Committee
- Combined Transport Group
- Urban Transport Co-ordinating Group
- Group of Statisticians
- Documentation System Management Group

Ad hoc groups

- High level group examining guidelines for future transport policies in Europe
- Group responsible for preparing aspects of a multilateral agreement on international road transport
- Group on transport and the environment
- Group on trends in International traffic (with a Sub-Group on infrastructural needs)
- Group on railways
- Group on inland waterways
- Group on the adjustment of the multilateral quota
- Group on transport for people with mobility handicaps
- Group on transport, computers and telecommunications (with a Sub-Group on road/vehicle communication)

Restricted groups

- Restricted group "A" (EEC Member States)
- Roads restricted groups

The joint OECD/ECMT Project Group on urban travel and sustainable development, set up in 1991, also continued its activities in 1992.

The reports produced by these bodies are considered by the Committee of Deputies and submitted, once approved, to the Council of Ministers.

The Chairman of the Conference in 1992 was the Greek Minister of Transport and Communications, assisted in the context of the Bureau of the Council of Ministers by the Netherlands Minister of Transport and Public Works and the French Minister of Equipment, Transport and Housing who were respectively First and Second Vice-Chairmen.

The Council of Ministers held two sessions in 1992: the first (75th Session) in Athens (Greece) on 11 and 12 June, the second (76th Session) in Paris on 26 November 1992.

The Committee of Deputies held its six sessions in 1992 on 9 January, 14/15 April, 11 June, 3 July, 8/9 October and 25 November. As is now customary, the January meeting of the Committee was preceded by a hearing of non-governmental international organisations concerning the main topics in the Conference's programme for the current year.

It should also be noted that, as each year, the Conference held a number of Round Tables in 1992, on a specific topic relating to transport economics. Its 12th International Symposium was held in Lisbon on the topic: "Transport growth in question".

Furthermore, the ECMT organised three International Seminars in 1992: the first on "Reducing Transport's Contribution to Global Warming" on 30 September and 1 October, and the other two in December in collaboration with the ad hoc Group on transport for people with mobility handicaps on the topics "accessible bus transport" (joint UITP/ECMT Workshop) and "accessible rail transport" (joint UIC/ECMT Workshop).

An overview of the Conference's activities is given hereafter.

Part One

ECMT ACTIVITIES

Chapter I

GENERAL TRANSPORT POLICY IN EUROPE

A. DEVELOPMENT OF CO-OPERATION WITH COUNTRIES OF CENTRAL AND EASTERN EUROPE

The equivalent section in the previous annual report outlined the early pattern of development of what were initially informal contacts -- and subsequently more structured relations -- between ECMT and the European countries with "economies in transition". It pointed out in particular that transport is one of the sectors in which questions of common interest, calling for a response on a truly continental level, can be seen in the most practical terms and that this sector can be regarded as initiating developments in co-operation that can be expected to amplify in an enlarged Europe.

The Conference's very prompt resolve to open up towards these countries led to the admission in 1992 of seven new Member countries from Central and Eastern Europe when the Council of Ministers, meeting in Athens, decided in principle -- a decision confirmed at its session of 26 November 1992 -- to welcome as members Bulgaria, Croatia, Estonia, Latvia, Lithuania, Romania and Slovenia. The membership of these countries will become effective subject to the completion of the necessary legal and administrative formalities within a year. These seven countries join the three with economies in transition admitted in 1991 (the Czech and Slovak Federal Republic, Hungary and Poland), one of which is now to be replaced by two autonomous political entities: the Czech Republic and the Slovak Republic.

These changes in the size of ECMT -- involving, among other factors, an increase in more than 50 per cent in the members of the Council of Ministers in less than 2 years -- will necessarily have a number of implications for the way in which the Conference operates and, more particularly, for the lines along which it will be working.

As regards the latter and clearly the most important aspect, the Council was called upon at its November 1992 Session to examine the ECMT's new three-year programme of work for 1993-1995 (see the second part of this annual report for more details). This was a particularly appropriate moment for the ministers to make adjustments to this programme in the light of the membership of the above countries and, from a more general standpoint, to draw the necessary conclusions from the new situation in a number of respects.

The Council accordingly decided that the ECMT should give absolute priority, at any rate over the next three years, to everything that can be done to facilitate the integration of the new Member countries into a pan-European transport system that will be efficient in economic, social and environmental terms.

The ECMT is of course by no means alone in this sphere, so it will be necessary at the same time to find a means of gearing its own scope for action to that of other intergovernmental organisations concerned with transport in Europe.

In this respect, following the all-European Transport Conference in Prague at the end of October 1991, these organisations took a unique step together in setting up a Steering Committee consisting of representatives of the European Parliament, the Commission and Council of the European Communities, ECMT, UN/ECE, ECAC and occasionally other organisations concerned, with a view to ensuring the mutual exchange of information with regard to further action on the Prague Declaration and also co-operating in the preparation of a further All-European Transport Conference which is expected to be held in Greece in Spring 1994.

As a direct result of the evolving membership of the Conference, moreover, the new three-year programme of work establishes certain principles for the division of work between ECMT and UN/ECE, since it was thought reasonable to ensure in the new geopolitical context that the UN/ECE's role with regard to technical and legal co-operation should be strengthened, as should the ECMT's policymaking role on behalf of the Ministers of Transport.

It should also be mentioned in connection with the new Member countries that the Council has decided to allocate 30 ECMT multilateral quota licences to each of them from the start of 1993. This is a transitional measure, designed to facilitate their integration into the European transport market pending the determination of their share in the multilateral quota on the basis of objective criteria which are themselves based on economic data that are difficult to compile at this stage.

To conclude this section, it should also be noted that the Russian Federation has taken the place of the former USSR as an observer country in ECMT and was accordingly represented by its Deputy Minister for Transport at the Council's two sessions in 1992. At its November Session the Council also replied in the affirmative to the Republic of Moldova which had likewise requested observer status.

B. CONSIDERATION OF GUIDELINES FOR FUTURE TRANSPORT POLICIES IN AN ENLARGED EUROPE

A Pan-European Transport Conference was held in Prague from 29 to 31 October 1991 on the initiative of the European Parliament and the Commission of the European Communities in collaboration with the Council of Ministers of the European Communities, ECMT, UN/ECE and ECAC. It was attended by representatives of governments and parliaments of European countries, the various Community institutions, and international inter-governmental and non-governmental organisations concerned with transport.

The ECMT submitted a paper to this Conference entitled: "Policy Guidelines for Transport in an Integrated Europe" which essentially set out the main conclusions reached by the Conference's Council of Ministers during a debate held on this subject at its May 1991 Session in Antalya.

The Prague Conference completed its work by adopting a Declaration on an all-European transport policy which sets out the relevant objectives of such a policy and the means of establishing co-operation in the transport sector in Europe. It lays particular stress on the need to draw up an adequate transport

infrastructure plan for Europe, develop intermodal and combined transport, ensure protection of the environment, and promote the use of telecommunications and telematics.

At its Athens Session the Council discussed the further action that ECMT might take on this Declaration and held an exchange of views on measures to improve transport infrastructure and relieve traffic congestion, funding methods to be envisaged in order to establish a Europe-wide network of trunk routes and upgrade the infrastructure of countries with economies in transition, means of speeding up border crossing, and steps to be taken to protect the environment.

a) This exchange of views primarily enabled the Council of Ministers to emphasize the need to define in greater detail certain **common principles** prior to the establishment of an all-European transport policy.

The Council of Ministers in fact considered that the framing of a co-ordinated transport policy in Europe would first call for the detailed determination of a number of common principles, the aim being to establish in due course a uniform system of transport operating in accordance with market economy principles, principles that include in particular:

-- harmonization of the terms of competition and proper allocation of costs, a prerequisite for the subsequent establishment of a free market;

-- increased efficiency of the transport system by means of:

. better co-operation among modes, which calls for an integrated approach that takes account of **all** modes of transport with a view to ensuring, by means of exchanges of information, planning of interfaces, harmonization of legal aspects etc., that the modes inter-operate and provide more efficient services for peripheral countries;

. better integration of networks, including combined transport operations;

-- satisfaction of requirements for personal mobility and the carriage of goods, while at the same time respecting the environment, which essentially calls for:

. measures relating to demand in order to curb unnecessary transport operations;

. measures relating to modal split in order to promote transport that caters most effectively for environmental needs (railways, combined transport, inland waterways or maritime transport, public passenger transport);

. traffic management measures, making use in particular of the possibilities offered by the new technologies.

b) In order to ensure that the objectives of the Prague Declaration are made more specific and to give expression to the principles set out above, the Council of Ministers also took the view that the following subjects warranted particular attention from ECMT:

-- The operation of the market:

. problems arising in connection with the subsidisation of particular modes;

. relations between governments and railways;

. the establishment of harmonized conditions for access to the all-European transport market. The ECMT should facilitate the adjustment of new Member countries to the rules in force within the EEC and the EEA.

-- The problem of congestion:

This problem is attributable to the unrestrained increase in traffic which leads to growing congestion on road networks and in air space. Ways of resolving it primarily involve measures relating to the demand for mobility and better use of those modes of transport which have spare capacity.

-- Construction of efficient transport infrastructure:

. identification of bottlenecks caused by inadequate infrastructure;

. assessment of existing investment projects;

. co-ordinated implementation of the investment projects called for.

It is not for the ECMT to draw up master plans for infrastructure, since its work should in fact be based on plans established by the European Communities and by the UN/ECE. On the other hand, it is up to the ECMT to promote a co-ordinated approach among the various countries with a view to establishing priorities for investment, especially as regards East-West flows and links with peripheral countries. This approach should also be integrated and take account of all modes of transport, give preference to infrastructure that does less damage to the environment and ensures greater security (renovation of rail or inland waterway infrastructure, modernisation of public transport).

-- Establishment of mechanisms to fund investment:

Given the substantial scale of investment requirements, it would be advisable to consider means whereby private funds could be called upon.

-- Environment:

. account to be taken of external effects: evaluation of the costs generated, allocation and the effects on modal split;

. introduction of clear-cut incentives to promote modes that respect the environment;

. development of suitable harmonized standards;

. use of new technologies -- and, in the longer term, recycling of the materials used -- and renewable sources of energy.

-- Road safety:

The improvement of road safety remains a matter of general concern calling for further action by ECMT with a view to greater harmonization of the policies pursued. This matter is of major importance to those countries that will be recording substantial increases in car ownership rates in the next few years.

-- Facilitation of frontier crossing:

Frontier crossing gives rise not only to administrative difficulties in the relations with the new ECMT Member countries but also operational problems, especially in the case of the railways where inter-penetration or inter-operation is in fact called for.

-- Use of new technologies:

ECMT should promote the inter-operation and compatibility of the new technologies in Europe which can provide for:

. more efficient management from the economic, environmental and safety standpoints (better information for users, route guidance, reduction of empty return runs, etc.);

. more effective monitoring of the application of existing regulations, especially social regulations.

In the process of drawing up the Conference's new programme of work, which was examined by the Council in November, particular account was taken of the views expressed in Athens concerning the subjects to be given priority consideration by ECMT.

c) The Council of Ministers also gave some indication of the type of approach that should be adopted by ECMT in dealing with the above topics:

-- ECMT should approach the above topics in its capacity as a body for transport policy consultations at the highest level and as a forum for discussion as open as possible. The Conference should focus on policy problems and avoid any unduly technical or regulatory approach since these aspects are the responsibility of other organisations (particularly the EC and UN/ECE). It will be up to ECMT to consult with these organisations so as to avoid duplication of effort and, where necessary, request certain technical studies, more particularly in the sphere of infrastructure plans.

-- Once the large European market is established by means of the European Communities and the European Economic Area, it will be for ECMT to create a bridge between this market and the new Member countries in Central and Eastern Europe.

-- In the view of many delegations, if the ECMT is to be the body at the highest policy-making level with a genuinely overall view of transport, its responsibilities should be extended to cover maritime and air transport.

-- When certain issues are examined (road safety, new technologies, environment, etc.), particularly close co-operation should be established with the Associate Member countries of the Conference.

d) In concluding its work, the Council of Ministers adopted a series of conclusions which provide for the organisation of a policy debate at Council level concerning the means (investment, measures relating to demand, modal split and traffic management) of coping with traffic growth, the fullest possible account being taken of environmental and safety issues.

The actual text giving these conclusions reads as follows:

"The Council of Ministers, meeting in Athens on 11 and 12 June 1992, and:

CONSIDERING

-- *the initiative of the institutions of the European Communities to organise an all-European Transport Conference in Prague in October 1991,*

-- *the debate on policy guidelines for transport in an integrated Europe, held at its Antalya Session on 22-23 May 1991,*

-- *ECMT's contribution to the Prague Conference which listed a certain number of points on which action might be taken,*

-- *the Prague Declaration of 31 October 1991 concerning an all-European transport policy,*

-- *the opening of ECMT to new Member and observer countries in Central and Eastern Europe,*

FULLY ENDORSING

the aims set out in the Prague Declaration as well as the means defined in that Declaration for the implementation of Europe-wide co-operation in the transport sector,

NOTING

that the introduction of an all-European transport system gives rise to a number of problems, which relate in particular to:

-- *infrastructure inadequacy and missing links*
-- *difficulties as regards frontier crossing*
-- *gearing the transport sector to market economy principles*
-- *environment and safety issues*
-- *funding*

BELIEVING

that, in the light of the Prague Declaration, it is necessary to consider means of solving these problems which would include :

- *investment in and modernisation of networks*
- *promotion of environment friendly modes of transport and multimodal transport*
- *management of traffic and demand*
- *organisation of frontier controls*
- *introduction of competition*
- *taking account of external effects*
- *a role for the private sector in funding*

TAKING DUE ACCOUNT OF

the work undertaken in this sphere within ECMT and also in the European Communities and the United Nations Economic Commission for Europe,

DECIDES

as an initial step to organise at one of its sessions in the coming year, a policy debate on means of coping with traffic growth in the context of an enlarged Europe. These means may include investment, public or private, in infrastructure, taking account of environmental and safety aspects, as well as measures relating to demand, modal split and traffic management; the objective is to contribute to the development of an all-European transport system that is efficient in economic, environmental and social terms."

With a view to further action on these conclusions, the Committee of Deputies decided that the Council's May 1993 Session should be devoted essentially to this debate requested by the Ministers. It has also decided that the discussions themselves should be focused on the following two topics:

- infrastructural congestion and investment requirements;

- demand management and the environment.

On the basis of the findings of this ministerial debate, the ECMT will be required to draw up a paper on the same subject for the new all-European transport Conference to be held in Greece in 1994.

Chapter II

ACTIVITIES IN PARTICULAR FIELDS

A. RAILWAYS

The ad hoc Group on railways concluded an important phase in its work when it submitted the report *Guided Transport in 2040* to the November 1991 Session of the Council of Ministers, thus completing the programme of work that had been assigned to it in 1981.

Although many of the problems that had given rise to this programme remain unresolved today -- and the measures advocated by the ad hoc Group in documentation submitted to the Council as means of dealing with them are still just as valid --, the context in which rail activities are at present carried out has unquestionably changed, if only as a result of the developments with respect to the Community's transport policy and the fact that the ECMT now has a number of new Member countries. If the railways are to avoid becoming simply a marginal mode of transport, they must find a response to the new challenges now facing them.

It was therefore found advisable to draw up a new programme of work for the ad hoc Group on railways, especially as it was necessary to incorporate the work in question into the Conference's new overall programme which was approved by the Council at its November 1992 Session.

The ad hoc Group met twice in 1992, and the new programme of work that it drew up includes the following four main topics:

-- Problems arising in connection with the Community's regulation of the railways

   The adoption in July 1991 of a Directive (91/440/EEC) on the development of the Community's railways has undoubtedly introduced a new factor and not all its implications are as yet clear. It would seem likely to reshape the framework for international rail traffic to a considerable extent.

   The ad hoc Group therefore thought it advisable to examine the implications for the non-EC countries with a view to the possibility of drawing up a resolution in ECMT to extend the application of the Community regulations to all Member countries of the Conference.

   Such an approach would, moreover, comply with a formal request by the Council of Ministers which, following the debate held on the report *Guided Transport in 2040*, called for a resolution to be drawn up on the long-term development of the railways, a resolution that would take account in particular of the provisions recently laid down in the European Communities with respect to the independent management of rail undertakings, obligations

inherent in the public service concept, the improvement of the railways' financial situation, separation of infrastructure management from the operational side, and access to infrastructure.

-- Relations with the railways of new Member countries

The Group has in the past studied measures whereby both technical and commercial improvements might be made in the short term in international freight and passenger services by rail.

It has been decided this work should be taken up again on a more specific basis by focusing the analysis on problems experienced in rail links with the Central and East European Countries (CEEC) which are new members of the Conference and on ways of resolving them.

-- Compatibility of technical standards

In response to a request made by a number of Ministers, the ad hoc Group has decided to examine ways and means of organising a Council hearing of representatives of industries producing railway rolling stock and equipment, a hearing that would be focused on the compatibility of equipment and enable both policy-makers and representatives of the industry to make clear what they expect in this connection.

-- Implications of combined transport operations for the railways

As has been shown by some recent difficulties, the existing pattern of organisation of the railways is clearly not always conducive to any real development of combined transport operations.

Within ECMT such operations have hitherto been dealt with by a specialised body from an essentially multimodal standpoint. It was accordingly thought advisable for the ad hoc Group to develop an approach over the coming years which would focus specifically on the problems that combined transport presents for the railways and on the obstacles to its development.

The ad hoc Group has decided that it will give priority in the immediate future to consideration of the first two topics set out above.

As regards problems arising in connection with the Community regulations, the Group undertook studies in 1992 with a view to drawing up a report and draft Resolution which should in principle be submitted to the Council of Ministers' May 1993 Session and which examine in particular:

-- implications of the definition of the concepts of railway undertaking, infrastructure manager and international grouping;

-- legal independence of railway undertakings and greater autonomy in managing their own affairs;

-- separation of rail infrastructure management from transport operations;

-- fees to be charged by the infrastructure manager for the use of infrastructure;

-- access to national rail networks for railway undertakings other than existing public railway undertakings;

-- financial restructuring of existing railway undertakings.

The report and draft Resolution set out a number of recommendations with respect to these matters.

The ad hoc Group has also started to consider problems associated with prospects for rail privatisation. The UIC will be making a specific contribution to this work, and the Group will also be taking particular note of the findings of Round Table No. 94 which will be examining this matter in February 1993.

The ad hoc Group conducted a survey in September 1992 with a view to preparing a report on commercial problems experienced in relations between the railways of ECMT countries with market economies and the railways of those new Member countries with economies in transition.

The report which will be prepared on the basis of replies to the survey, will be designed to seek means of facilitating the integration of the new Member countries from the standpoint of their railways. It will deal solely with commercial issues and cover neither infrastructure nor frontier crossing problems since both topics are currently being examined by other international bodies.

B. COMBINED TRANSPORT

In 1992 the Council of Ministers which held its May session in Athens approved the report containing further information on the dimensions of loading units (containers and swap bodies). The initial report which had been approved in 1991 and had been supplemented by a formal Resolution stated the acceptable limits for ECMT Member countries with regard to these dimensions, taking into account the constraints of European inland transport infrastructure.

The report approved in May 1992 and reproduced in the third part of this publication [document CEMT/CM(92)3] discusses in particular inland/maritime transport interfaces and the problem of very large containers. The Working Group based itself on two reports commissioned from consultants, one giving the viewpoint of a shipping line and the other that of a European port.

The policymakers' resolve to express their opinions as clearly as possible on these dimensions and their impact on domestic transport in Europe was to act as a signal to the other parties from the manufacturing, business and financial fields involved in this sector. The seminar discussions stressed the relevance of the subject and the difficulties of reaching agreement concerning it. The ball is now in the court of the manufacturers who, at the next ISO meeting in Copenhagen in July 1993, will see what follow-up action should be taken concerning the draft Resolution prepared at the end of this seminar.

The Working Group's activities on this subject have been completed for the time being. The conclusions of the UN/ECE seminar confirmed the views expressed by ECMT. Vigilance is, however, important with regard to future developments and a timely reminder should be issued on the need for such vigilance.

In its studies on loading unit dimensions, the Working Group noted that it was sometimes difficult for Delegations to understand one another when they used terms that were identical but referred to different concepts. In order to provide a solution for these particular practical problems, the Working Group has started to prepare a glossary of the terms most frequently used in its work. This glossary in the Conference's three working languages -- French, English and German -- should be completed in 1993.

Other international bodies which are confronted with similar problems and which have agreed to wait for the ECMT publication before trying to solve them are particularly looking forward to this glossary.

The Working Group on Combined Transport has taken part at its level part in the preparation of the ECMT's three-year programme of work. In this connection it has been agreed that a specific contribution should be made to facilitate the integration of the new Member countries in the market economy system. As far as promoting combined transport is concerned, it should also examine the obstacles encountered especially by rail in the development of this mode and the improvements which should be made to it.

C. ROAD SAFETY AND ROAD TRAFFIC, SIGNS AND SIGNALS

The Council took note of two reports submitted to it in 1992 on road safety, signs and signals.

The first examined the pattern of *development of road safety policies*. In the last two decades all road safety policies have developed in a comparable way, with slight differences in timing and implementation methods: starting with major national legislative measures in the early 1970s (compulsory use of seat belts and helmets, speed limits, initial laws against drink driving), action to promote road safety has been gradually combined with other road transport objectives and has been diversified. This diversification has been accompanied by the increasing decentralisation of action and the mobilisation of the authorities' partners in the private sector, the aim being to prepare and implement concerted and universally recognised road safety programmes.

A number of instruments have been set up in ECMT countries as a whole to accompany these programmes: the definition of objectives, the creation of bodies for effective national co-ordination and financial incentives.

As a result of these decentralised policies, individual types of action have been taken that are limited in scope although their number has given a significant overall increase in safety. The results are sufficiently encouraging for these decentralised and concerted road safety policies to be pursued and further developed.

The Council of Ministers adopted a Resolution (see Resolution 92/3 in the third part of this publication) recommending various measures to mobilise all those concerned by decentralised road safety policies: establishment of quantitative objectives (maximum number of casualties to be reduced at a given rate, etc.), or qualitative objectives such as the establishment of appropriate bodies to ensure co-ordination and monitoring of measures taken at different levels and to promote the exchange of experience, the provision of financial incentives in the form of contracts, etc.

The other report concerned *priority rules for traffic* insofar as differences still exist between one European country and another as regards the rules applicable when approaching or crossing intersections. In order to remedy a state of affairs which makes it less safe to drive in another country, the report [CEMT/CM(92)5 reproduced in the third part of this publication] suggests some amendments to the terminology used in existing international conventions (Convention on Road Traffic and Convention on Road Signs and Signals), changes in the rules of priority at intersections given in these conventions, and also measures that may be conducive to greater consistency between road signs and signals and road infrastructure. Such measures relate in particular to vehicles entering motorways and prohibition of the use of emergency lanes as an extension of the acceleration lane, the increasing number of exceptions to the rule of priority to the right (public roads that are not open to motor vehicle traffic, exit from a bordering property, etc.), T-junctions, roads carrying through traffic which should have priority, traffic lights for pedestrians which have to be complied with, flashing orange/yello arrows for right turns, and roundabouts.

This report was subsequently transmitted to the United Nations Economic Commission for Europe in Geneva so that, in future revisions of international conventions, this body would take into account the amendments accepted by the Council.

In the second half-year under review, the Committee concentrated on the preparation of the Conference's three-year programme of work. At the request of a number of Delegations and with the aim of avoiding duplication of work that was being carried out elsewhere, it was agreed that the most technical reports under way would be transmitted to the UN/ECE for examination and that the Committee for Road Traffic, Signs and Signals would continue to study the reports which had been prepared over the years, such as the one nearing completion on the consistency between road infrastructure and road signs and signals.

D. MULTILATERAL QUOTA

At its meeting in Athens in June, the Council of Ministers adopted a text setting out new provisions for the operation of the ECMT multilateral quota of licences for the international transport of goods by road for hire or reward [see CEMT/CM(92)8 Final, in the third part of this publication].

The earlier provisions had to be updated in the light of problems experienced in practice, in particular the action to be taken in the case of infringements. Changes in the system used in the European Communities and the advisability of providing for the computer processing of the licences issued also had to be taken into account. The new provisions take particular account of the Resolutions recently adopted by the Council concerning the nationality of coupled combinations of vehicles and the introduction of specific licences for "green lorries": these licences are accompanied by a certificate to the effect that the lorry concerned meets air pollution and noise standards.

There was no general increase in the quota with effect from 1 January 1993, since the Conference members as a whole were unable to approve one at the November Session. The Council of Ministers, however, agreed that the new Member countries (Bulgaria, Croatia, Estonia, Latvia, Lithuania, Romania and Slovenia) would participate in the multilateral quota as soon as possible in 1993.

As a transitional measure, 30 licences will be allocated to each of these countries in early 1993 so as to facilitate their integration in the European transport market. The number of licences will

subsequently be reviewed on the basis of objective criteria such as GDP, foreign trade, and road haulage traffic as soon as data in this connection become available.

At the November session, an extension of the "green lorry" concept was proposed but was not approved by the Council, for a variety of reasons. Some countries were uncertain about the consequences of extending a scheme which had been in operation for such a short time; some countries wanted to see increases in the traditional quota beforehand; others preferred to wait until noise standards had been harmonized. There was, however, a large consensus that the concept should be persevered with.

A broad issue which was raised concerns the longer-term future of the quota considering the disappearance of quotas in the EEC and perhaps, eventually, in the European Economic Area.

The task of the Ad Hoc Group will be to pursue its work, bearing in mind the points made and to draw up proposals for fresh adjustments in the scheme during 1993.

E. INLAND WATERWAYS

The classification of inland waterways, established on the initiative of the ECMT Council of Ministers in 1961, had become increasingly unsatisfactory in view of the development of pusher navigation and river/sea traffic, the increase in vessel size, the modernisation of waterways in many countries and the increase in container transport.

The publication in February 1991 of the conclusions of the Permanent International Association of Navigation Congresses (PIANC) Working Party on the standardization of inland waterway dimensions formed the basis of the Ad Hoc Group's work.

This work was conducted jointly with the Economic Commission for Europe. This co-operation can be described as exemplary, since the experts within the two organisations' working groups, who were more or less the same, arranged for their meetings to be held alternately at ECMT or at the ECE, and on each occasion for the working papers available to them to be given a sharper focus by taking into account the conclusions obtained at one or other of the meetings. The Council thus adopted the new classification for European inland waterways at its session held in Athens in May 1992 [CEMT/CM(92)6 Final, reproduced in the third part of this publication].

This classification takes account of the changes in navigation techniques and of the specific situation as regards inland waterways in Central and Eastern Europe, while also differentiating between waterways in terms of their regional or international character and according to their location to the West or East of the Elbe. It differs from the earlier classification in that some waterways of international importance are further subdivided, while an additional Class VII waterway has been introduced owing to the special characteristics of the many push convoys on the Danube.

The joint efforts of ECMT and UN/ECE have resulted in a single classification for inland waterways for the entire geographical area of Europe. This exercise cannot be completed without preparing the necessary maps and atlases. They should be produced under the direct responsibility of UN/ECE which has the appropriate staff for this task.

On completion of its discussions, the Council urged that this classification be taken into account when carrying out network modernisation and improvement programmes with a view to ensuring that the European inland waterways network is as homogenous as possible. As regards inland waterways development policy, the Council also emphasized the importance of this mode of transport for the future, particularly in view of the entry into service of the Rhine-Main-Danube link, the opening-up of the East European countries to the market economy, the opportunities offered by combined transport using waterways and the considerable capacity available on the European network which can be used with no need for substantial investment.

F. TRANSPORT AND THE ENVIRONMENT

The Earth Summit in Rio de Janeiro, in June, reflected the degree of world-wide concern for the environment in 1992. Though transport was not a specific focus of the Summit's deliberations, the serious and growing problems from the sector were a central theme. The agreement on greenhouse gas emissions, supported by over 150 countries, will inevitably have significant consequences for the transport sector.

ECMT reacted to this strong concern by holding a major seminar, on 30 September and 1 October, on reducing transport's contribution to global warming. This seminar brought together some 100 government officials and specialists. The proceedings will be published by ECMT during 1993. It was evident from the papers and the data presented that global warming poses completely new challenges for transport policy-making in the 1990s and beyond. The contribution of transport to the overall effect is estimated at between 20 and 25 per cent for most western European countries. Significantly, the transport proportion appears to be rising. To date, policy responses have been quite limited, though it is clear that current traffic and greenhouse gas emission trends are incompatible with achieving the objectives set out at Rio of stabilizing emissions. Indeed, for many ECMT countries, emission levels will grow substantially.

It was seen that there are policy packages that can stabilize and then reduce emissions a little. But these involve important new measures and significantly stronger instruments than those applied in the past. One powerful and effective tool is believed to be fuel prices, though substantial fuel price increases are required to achieve behaviour change. Moreover, to avoid uncertainty, fuel prices should be increased regularly and steadily. Of course, other instruments are needed. In particular, the introduction and gradual strengthening of CO_2 emission limits for all vehicles should be considered. Limiting power-to-weight ratios for vehicles, as advocated previously, can also make a contribution. Initially, it is essential that national programmes to reduce CO_2 emissions be formulated. Transport Ministers will need to play an active part in drawing up and implementing these programmes. From an international perspective, it was reiterated that without co-ordinated international action there is a strong risk that even stabilization of emissions will not be achieved.

These summary conclusions were brought to Ministers' attention in November and will be discussed in more detail at their Council Meeting in May 1993.

In the context of the ECMT's Multilateral Quota, the scheme which encourages hauliers to use "green lorries" came into operation. Though limited in scope, it does send the political signal that quieter, less polluting lorries will be required in international transport. Extensions of this scheme are being examined.

Close co-operation in the work is maintained with other international organisations and especially with OECD. During the year, joint activities continued. In particular, ECMT was associated with a major conference on electric vehicles in Stockholm. The publication resulting from this conference is available from OECD sources. There is a new wave of optimism about the contribution that electric vehicles can make to reducing urban air pollution. The papers and discussion highlighted the problem areas and examined policy instruments which could help to bring about their more rapid introduction. Furthermore, a joint OECD/ECMT working group has taken as its theme "Urban Travel and Sustainable Development". This work is described under the section on urban transport.

G. TRENDS IN INTERNATIONAL TRAFFIC AND INFRASTRUCTURAL NEEDS

In May 1986 the ECMT Council of Ministers examined a report entitled *International Traffic and Infrastructural Needs*. After describing the main flows of international traffic, this report set out a number of scenarios for trends in such traffic up to the year 2000 and drew attention to the bottlenecks that were likely to occur in inland transport infrastructure in Europe. It pointed out in particular that, unless growth in international traffic was under 1.3 per cent for the road sector and 1.1 per cent for rail, problems of congestion could only worsen in ECMT countries over the coming years.

Following the submission of this report, the Council instructed the ad hoc Group on trends in international traffic to monitor trends in Europe on a regular basis, together with the relevant infrastructural needs, and to report back to it in due course.

The fact is that international road traffic within the European Communities has increased between 1984 and 1990 at an average rate considerably higher than that calculated to be critical in the 1986 study. As a result there are now increasingly evident signs of congestion on a number of infrastructures and on roads in particular.

Given these developments it seemed increasingly advisable during 1991 to again take stock of both the existing traffic forecasts and the problems of network congestion. There in fact appeared to be an even greater need for such an exercise in that the three countries which became members of ECMT in that year, namely the Czech and Slovak Federal Republic, Hungary and Poland, quite clearly have inadequate transport infrastructures.

Since a relatively technical approach is called for initially in this respect it was decided that, within the framework of the activities of the ad hoc Group on trends in international traffic, a Sub-Group on infrastructural needs should be set up to draft a report for subsequent submission to the Council of Ministers.

The Sub-Group was set up in 1991 and drew up a questionnaire on infrastructural needs and means of ensuring the smooth flow of inland surface traffic in Europe which was then sent out to all ECMT Member countries.

The essential aim of this survey was to compile the most recent basic documentation in this connection with a view to trying to ascertain what the transport infrastructure needs are and also to see whether the forecasts established by the various countries, together with the measures designed to cope with the infrastructural inadequacies, were mutually consistent. In practical terms, the questions asked

concerned future trends in passenger and goods traffic, the current situation with regard to infrastructure and investment projects, and capacity problems and measures to be taken to resolve them.

A very substantial volume of documentation was compiled by means of this survey during the second half of 1991 and provided the basis for a draft report, the initial versions of which were carefully examined by the Sub-Group at its two meetings in 1992.

This report first takes stock of the existing situation with regard to traffic and bottlenecks found in transport infrastructures, a situation characterised by spreading congestion and globalisation of the problems and also by inadequate integration into the European area of both the peripheral regions and the Central and East European countries.

The proposed responses to these problems of traffic growth remain very fragmentary and simply amount to the juxtaposition of national plans at international level. As regards the tools for analysis, the forward-looking studies are usually carried out sporadically and the methods used are seldom comparable. The concept of integrated European transport as described in the Prague Declaration by no means provides a clear answer to the questions arising in connection with the choice of investment projects to be carried out by the CEECs, especially as regards the respective roles for rail and road. Lastly, the diversity of official policies on combined transport is hardly conducive to the development of a real European network operating around efficient terminals.

In order to remedy this state of affairs, the report sets out a whole series of recommendations concerning the tools for analysis (monitoring flows, planning a European network, locating congestion) and policy decisions (promotion of infrastructure plans, investment expenditure, other measures to alleviate congestion).

A summary of this report, which includes some important annexes describing the situation as regards transport infrastructure in the various ECMT Member countries, is to be submitted to the Council of Ministers' May 1993 Session for a general debate arranged in the context of the follow-up to the Prague Declaration. The report itself is to be published during 1993.

H. TRANSPORT, COMPUTERS AND TELECOMMUNICATIONS

The ad hoc Group on Transport, Computers and Telecommunications (TCT Group) held three meetings in 1992, essentially with a view to drawing up a three-part report taking stock of the ECMT's activities in this sphere which was submitted to the May 1992 Session of the Council.

The report first describes the conditions under which the ECMT has monitored the work carried out in the context of ERTICO and the ATT-DRIVE II programme, the content of which was determined at the end of 1991 by the Commission of the European Communities. It then sets out the initial findings of the 1991 survey on administrative and legal problems arising in connection with route guidance/driver information systems, findings that show there are two major categories of legal/administrative obstacles to the introduction of the new systems, namely the dispersal of responsibilities among various ministerial services, and the breakdown of powers between central government and the other authorities concerned.

The third section of this report also set out some proposals for the ad hoc Group's future activities: first, those concerning the pursuance of work in hand -- monitoring the DRIVE and PROMETHEUS programmes, further consideration of administrative and legal problems in connection with route guidance/driver information systems, the safety aspects of on-board equipment, road/vehicle communications (work by the Sub-Group) -- and, secondly, those relating to new activities, such as increasing co-operation among transport operators, the establishment of guidelines for the co-ordinated development of applications relating to information for travellers, road traffic information and route guidance. The Council of Ministers did in fact approve these proposals so they were included in the Conference's general programme of work which the Council adopted in November 1992.

In addition to completing this report, the TCT Group dealt with a number of other matters during 1992, including:

-- Preparation of a report on administrative and legal problems in connection with the introduction of route guidance/driver information systems.

Following the 1991 survey in this connection, the ad hoc Group examined a preliminary draft report with a view to submitting it to the Council in May 1993. In the light of the observations made by the Committee of Deputies, the original version of the report was amended quite substantially. It first drew attention to the challenges associated with the introduction of the new route guidance and driver information technologies and pointed to the risks that would be involved if the technical solutions adopted were not consistent at European level. It also highlighted the main institutional/legal/technical obstacles to the harmonious development of these systems in Europe. Lastly, the report proposed a number of ways of ensuring that the systems would be interoperable, emphasizing the need to establish common definitions, co-operation among the services concerned and a definition of the services to be provided, as well as the need to determine requirements for the allocation of powers and responsibilities and for the protection of personal privacy.

This report will subsequently be submitted to the Council and will in principle be accompanied by a draft Resolution giving formal recognition to the recommendations set out in its final section.

-- Monitoring the PROMETHEUS programme

In the co-operation initiated with those responsible for this programme, the TCT Group drew up a note setting out a number of proposals for action that the ECMT would like to see undertaken in the sphere of mobile telecommunications and traffic management. More specifically, the measures concerned are designed to speed up the introduction of the following services:

. a pan-European mobile data communications service for traffic information within GSM: SOCRATES;

. a pan-European localisation service within GSM;

. a pan-European mobile data communications service for commercial fleet management.

This note was formally transmitted to CEPT (European Conference of Postal and Telecommunications Administrations) and ETSI (European Telecommunications Standards Institute) for further action.

-- Co-operation with ERTICO

As requested by the Council in November 1991 during the hearing of those responsible for the PROMETHEUS programme, the TCT Group has closely monitored the work being done by ERTICO, a semi-public, semi-private organisation set up for the purpose of bringing together representatives of the automotive industry, the electronics sector, road users' organisations and government transport departments with a view to ensuring the efficient introduction of road transport informatics systems in Europe.

In addition to exchanges of information between the two organisations, the co-operation has essentially involved the effective participation of an ERTICO representative in the TCT's work, the appointment of a specialist to the TCT Group to monitor the TELTEN project developed by ERTICO, and an application by ECMT for observer status within ERTICO. Furthermore, the two organisations have decided to initiate a joint study on institutional and legal aspects of the introduction of advanced telematics systems in the transport sector.

-- Monitoring the DRIVE programme

The Group decided, for each of the seven research fields of the new ATT-DRIVE II programme -- specified according to the classification adopted for this programme -- to appoint a delegate within the Group who would be required specifically to monitor the DRIVE work in the field concerned, identify the problems calling for a policy response by ECMT and report back regularly to the TCT Group.

-- Autonomous intelligent cruise control (AICC)

AICC, which is a more advanced form of existing cruise control systems, will probably be the first PROMETHEUS application to be marketed. It gives rise to the following problems: a precise legal definition of the safe distance, choice of interface with the driver, responsibility/liability with respect to the automated systems used ... all matters that are not at present covered by highway codes.

In order to monitor this matter, the TCT Group decided to set up a small task force of rapporteurs which will be required to propose a number of rules with respect to safety and responsibility/liability so that AICC systems can operate properly. A number of members of the TCT Group attended a workshop on this subject which was held on 25 and 26 November 1992 in the context of the PROMETHEUS programme.

-- Safety of on-board equipment

In accordance with its programme of work, the TCT Group decided to draw up recommendations that would at least set out the methods to be used in this connection. More particularly, these recommendations might specify that access to the market cannot be entirely free for on-board equipment and lay down some safety requirements that new on-board systems would have to meet.

Work is currently in hand in this connection in the United Kingdom, France, and under the PROMETHEUS (establishment of a safety check list), DRIVE (HOPES and PASSPORT projects) and CEN (European Committee for Standardization) programmes.

In order to exploit the findings of this work and possibly draw up a Resolution, the TCT Group decided to set up a small task force of rapporteurs.

-- Road/vehicle communications

During 1992 the ad hoc TCT Group was also kept informed about the work of the Sub-Group on road/vehicle communications which reported to it regularly on the progress made with its remit.

The Sub-Group on Road/Vehicle Communications continued its work actively during 1992. The draft standards for transport messages sent on the Traffic Message Channel of the Radio Data System were adopted by Ministers in 1991. Trials, under the DRIVE II project, began in 1992 and will use these draft standards. This will allow for a period of reflection and practical testing on the pre-standards. After the trials, final refinements can be made to the system, which can then be sent to appropriate standardization bodies. The Sub-Group is now turning to other problems arising in conjunction with the communication of traffic messages across Europe. A central issue concerns the system for coding locations and the identification in a harmonized form across countries of the key points in the network. Several countries had already embarked on this process and there were significant differences of opinion on the best method to use. After lengthy discussion, a compromise has been proposed, whereby countries will code national locations in their own way, leaving adequate space for the coding of the points that can be regarded as essential for an international network. This solution is being advanced within the DRIVE project and looks like offering a sensible way forward.

The Sub-Group continues to work closely with industry, with the EC Commission and with the EBU (European Broadcasting Union). It serves as a sounding board and provides political support for technical work on the DRIVE II project and elsewhere. This political back-up for the activities of DRIVE II has proved invaluable in helping to ensure harmonization at an early stage in the process.

I. TRANSPORT FOR PEOPLE WITH MOBILITY HANDICAPS

The ECMT believes that its efforts in this domain have contributed to improving awareness and understanding of transport problems encountered by elderly and disabled people. Urban and transport planners, architects and transport operators more often now take the needs of this significant and growing group into consideration at an earlier stage.

ECMT's work in this area continued actively in 1992 and several significant events took place.

In March, at the kind invitation of the Spanish authorities, a seminar was held in Seville on the subject of access to taxis. As with previous seminars, all those directly concerned were present, including national and local authorities, taxi operators and their associations, vehicle manufacturers, and participants representing users and potential users. The papers and conclusions from this Seminar have

been published under the title *Access to Taxis*, and this publication is available from the sources listed at the end of this report.

For people with mobility handicaps, the taxi can provide the key to a fuller life. It is a flexible, 24-hour, on-demand, door-to-door means of transport that can spell the difference between active involvement in community or professional activities and the threat of exclusion and isolation. A fundamental point is that if taxis are more accessible to people with mobility handicaps they are more convenient and comfortable for taxi users in general. Another is that people with mobility difficulties offer a large market potential for taxi operators, particularly where complementarity with other forms of transport is involved.

The Seminar participants drew up and agreed on a number of Recommendations intended for the different groups involved.

Manufacturers need to address accessibility when designing taxis; and design parameters should be drawn up at European level. At any rate, there should be more widespread incorporation of features such as swivel seats, adequate door apertures and handholds.

Operators should not have to face competitive disadvantages posed by requirements to provide accessible taxis. Disability-awareness training for taxi drivers is highly successful, especially where people who themselves have mobility handicaps assist in giving guidance. Using mainstream taxis is more cost-effective and socially acceptable than separate, specialised services.

Central, regional and local governments have a vital role to play in making taxi services more accessible to the less mobile. These authorities need to take account of the wider economic and social benefits of their increased mobility. And a partnership, linking governments at all levels, the taxi organisations and people with mobility handicaps, is essential to achieve the right mix of transport provision and maximise the potential of the taxi.

Discussions are continuing with taxi representatives, through the International Road Transport Union (IRU), to develop a series of concrete measures that will help to make this vital transport link accessible.

Two further important workshops were held in December. These were organised with the help of the International Union of Railways (UIC) and the International Union of Public Transport (UITP); the themes were respectively access to trains and access to buses. The objectives were to discuss openly with operators the practical problems and the obstacles to making main-line railways and mainstream public transport accessible. In both areas, substantial progress is being made and it was valuable to review this and to discuss the roles of government and operators, as well as the relationships between them. A crucial issue, raised more particularly by operators, is funding, especially where extra investment is required. Operators do not always believe that this investment is financially justified in an environment where they are being forced to adopt more commercial practices. These issues will be further developed during 1993.

There is much discussion about the appropriate balance between legislative and other measures in achieving access. The EC is examining the possibilities of appropriate regulations but, as yet, has made no concrete proposals. ECMT does not make regulations itself but has recommended that the appropriate organisations do so in particular cases. This applies especially to buses, where existing legislation lags well behind best practice. ECMT's approach consists also in working with those directly involved and in helping to bring about the changes in attitude that legislation alone cannot

achieve. Good co-operation between the different international organisations involved can help achieve the balance between legislative and other measures that will succeed in bringing about better access for everyone to all modes of transport.

J. URBAN TRANSPORT

In spite of the diversity to be seen among the urban areas throughout the world, the transport problems encountered by each are remarkably similar. Congestion, air and noise pollution and accidents all generate enormous direct and indirect costs that have to be borne by society. There is widespread dissatisfaction, moreover, with the progress made in finding solutions to these problems. To provide a better response on these issues, and to try to understand why policies adopted in the 1970s seem to have had limited success, a joint OECD/ECMT working group has been set up on "Urban Travel and Sustainable Development". This unique working group, comprising representatives from ministries of transport, environment and urban planning, as well as from other ministries, has been looking at a wide range of practices and policies across OECD and ECMT Member countries.

Two broad themes in particular dominate the work. These concern the role that land-use planning can play in reducing the need to travel and, second, the possibilities offered by better traffic management, especially by pricing measures, in reducing car traffic in city centres.

An important seminar on the second of these topics was held in Basel, Switzerland, in June 1992. It focused more particularly on the wider use of economic instruments in urban traffic management. The papers[1] showed that the renewed heightening of theoretical and political interest in road pricing was not being followed by concrete application. Implementation is a crucial issue that will be pursued in the work of the joint group.

Within the ECMT, the Urban Transport Coordinating Group is finalising a report on Light Rail Transport. This topic is of keen political interest because there are hopes that it will contribute, without involving excessive cost, to solving urban traffic problems. The substantial body of work that is nearing completion includes national policy overviews and very detailed case studies, as well as broad policy analysis across a range of countries. A unique feature of the work of the group is that the lead role has been taken by the United States. In consequence, the report includes highly interesting and detailed information on developments in the United States.

K. STATISTICAL ACTIVITIES

The Group of Statisticians met in June 1992. On this occasion it was first informed of the results of the survey conducted to compile the 1989 data for publication in *Statistical Trends in Transport*. It found that most countries had been able to supply the particular statistics requested for the first time which concern the size of enterprises, the road vehicle population with a breakdown by type of fuel used, and sea transport of goods wagons and road freight vehicles.

The Group also made arrangements at that meeting to collect statistical data for the three new ECMT Member countries: the Czech and Slovak Republics, Hungary and Poland, and these three

countries were subsequently asked to reply to the questionnaire sent out with a view to preparing the leaflet on trends in the transport sector, and a similar request was made for the survey at the end of 1992 compiling the 1990 data for *Statistical Trends in Transport.*

In accordance with its terms of reference, the Group has taken steps to ensure effective co-ordination of the ECMT's statistical work and that done by the UN Economic Commission for Europe (UN/ECE) and the Statistical Office of the European Communities (EUROSTAT), an approach that has primarily involved reciprocal invitations to representatives of the Secretariats of the three Organisations to attend meetings of the particular bodies concerned with transport statistics.

The co-operation among these three international organisations has taken on a new dimension since 1991 when an Intersecretariat Working Group was set up and began to draw up a common statistical glossary for ECMT, UN/ECE and the European Communities. At the end of 1992, this Group completed the drafts for the chapters of the glossary concerning railways, roads and inland waterways. Particular account was taken of the comments made by the various national delegations following a very broad consultation procedure based on an initial draft. The delegations had the opportunity to give their views both in writing -- in response to a survey conducted by the Intersecretariat Group -- and orally at the June meeting of the ECMT Group of Statisticians and at the November meeting of the UN/ECE Working Party on Transport Statistics.

The Group of Statisticians' June meeting focused essentially on an examination of the first draft of the glossary drawn up by the Intersecretariat Group and agreement was reached on the chapter on railways. The UN/ECE working party examined the chapter on roads.

The chapters on inland waterways and oil pipelines can be expected to be finalised in 1993, and the glossary will then be issued as a joint publication by the three organisations concerned. Their statistical work in co-operation should then enter a new phase in that year since the completed glossary is in fact only the first stage in a long process of harmonisation. As from 1993 the Intersecretariat Group is planning to examine ways and means of drawing up joint questionnaires, the aim in the longer term being to establish a common database, or even issue single statistical publications for Eurostat, the UN/ECE and ECMT.

Under the supervision of the Group of Statisticians, the Secretariat has continued to improve both the layout of the ECMT's statistical publications and the production processes. The following were prepared in 1991:

-- The volume of *Statistical Trends in Transport* covering the period 1965-1989. Like the previous issues, this publication contains a large number of statistical tables on investment, labour, traffic, equipment (vehicles, etc.) and infrastructure, and energy consumption for the various modes. It also includes a number of tables for the first time which give additional statistical information on the number of freight transport operators, numbers of road vehicles with a breakdown by type of fuel used, and sea transport of goods wagons and road freight vehicles. The origin-destination tables for international traffic also give data for the former German Democratic Republic for the first time, the aim being to ensure a certain continuity in the figures compiled for Germany and so facilitate the transition to the new series being established subsequent to reunification.

-- The annual leaflet on trends in the transport sector, covering the period 1970-1991, which was submitted to the November Session of the Council of Ministers. It essentially describes the situation of the transport sector in 1991 -- passenger and freight traffic, road safety -- and,

with the help of charts, shows the changes that have occurred since 1970. A major advantage of the leaflet is that it is published earlier than any other comparable study. The text is reproduced in the second part of this 39th Annual Report of the Conference. For the first time it includes certain data on trends in transport in the three new ECMT Member countries: the Czech and Slovak Federal Republic, Hungary and Poland, and a special study in this connection is reproduced at the end of the leaflet.

Lastly, it may be noted that further work in 1992 with respect to computerisation should give even easier access to the data in *Statistical Trends in Transport* by means of the LOTUS or EXCEL software.

Note

1. The papers have been published by the organiser of the conference, the Center for Economics and Business Administration, University of Basel, Switzerland.

Chapter III

ECONOMIC RESEARCH AND DOCUMENTATION

A. OVERVIEW

Since 1967, the ECMT has had the research and documentation structures needed to provide detailed analysis for policymaking.

It is the Economic Research Committee (ERC) that programmes and prepares the activities of the Economic Research and Documentation Division. The Committee is regularly informed of progress with the preparation of meetings and their outcome.

The activities of the Economic Research and Documentation Division comprise:

a) *Symposia* which are held every three years and attract a wide audience of prominent figures from the transport field (research, operation, government departments, users, personnel; approximately 400 participants).

   The ERC defines the general topic and sub-topics for a symposium; it selects the session chairmen and rapporteurs.

b) *Round Tables* which are held four or five times a year, except in the year of a Symposium or Seminar. At the Round Table a limited number of highly-qualified specialists (some 24) studies a specific topic in detail on the basis of one or more background reports. The topics for Round Tables are defined by the ERC.

c) *Seminars* which are ad hoc meetings on topical subjects and are intended for quite a wide range of specialists (approximately 100). A proposal to hold a Seminar may come from quite different sources; it is submitted for approval to the ERC which draws up the organisation plan for the Seminar.

d) *Regional Round Tables* which are held at the initiative of one or more Member countries when they consider it useful to study from their own angle a subject that has already been discussed at a general Round Table.

e) *Documentation* which is managed by a Management Group consisting of economists and documentalists. A report is periodically submitted to the ERC which defines the objectives for the computerized system of International Co-operation in Transport Economics Documentation (ICTED). The work done in this context involves the permanent supply of input for the bibliographic database (TRANSDOC) which can be accessed by users throughout the world via telecommunications networks.

A consistent programme of research topics must have a sufficiently long lifespan and, in practice, the ECMT's programme covers a three-year period and includes the topics for one Symposium, about twelve Round Tables and, frequently, a Seminar.

During 1992, a large part of the Economic Research Division's work was devoted to the preparation and holding of the **Twelfth International Symposium on Theory and Practice in Transport Economics**, which took place in Lisbon from 4 to 6 May 1992.

The general topic for the Symposium was: **Transport Growth in Question**. Part B below describes in greater detail the proceedings and the conclusions reached.

Two Round Tables were also held in 1992:

-- **Round Table 92:** *The Benefits of Different Transport Modes*, which was held in Lyons from 30 June to 1 July;

-- **Round Table 93:** *The Relationship Between Regional Policy and Transport and Communication Networks*, held on 5-6 November. This was organised in collaboration with the OECD Industry Committee's Working Group on Regional Development Policy.

The main conclusions of the Symposium and these Round Tables are to be found under Parts B and C of this Chapter.

In 1993, five Round Tables will be organised, on the following subjects:

Round Table 94:	*Privatisation of Railways: Methods and Obstacles* (4-5 February 1993);
Round Table 95:	*Infrastructure and Transport Systems Renovation, notably in the East-West framework* (18-19 March 1993);
Round Table 96:	*Short-distance Passenger Travel* (10-11 June 1993);
Round Table 97:	*Charging Systems for the Use of Urban Infrastructures* (4-5 November 1993);
Round Table 98:	*The Coverage of Interurban Traffic Costs* (2-3 December 1993).

B. 12TH INTERNATIONAL SYMPOSIUM: TRANSPORT GROWTH IN QUESTION

The ECMT's 12th International Symposium on Theory and Practice in Transport Economics was held in Lisbon from 4 to 6 May 1992 and was attended by more than 500 people. The main topic for the Symposium, "Transport growth in question", was approached by means of 15 background reports covering the following sub-topics:

-- Demographic structure and social behaviour;

-- Economic trends and transport specialisation;
-- Infrastructure capacity and network access;
-- Impact of new technologies on efficiency and safety;
-- Environment, global and local effects.

Without discussing each sub-topic in detail, the main results of the Symposium with respect to public passenger transport and freight transport are set out below.

Public passenger transport

With regard to the use of the private car, the first point made during the Symposium was that mobility can be expected to continue to increase spontaneously since it is self-perpetuating. The growth of the car population is comparable to a force of nature, one of the main reasons for such growth being that the elderly persist in driving as long as they are able. It is found that people do like to keep to their regular habits as they grow older. Another reason is the changing role of women in society since they are gradually acquiring a status comparable to that of men and are therefore adopting similar behaviour which favours the use of the car. Many young people too now own cars and an increasing number of households have two or more vehicles. It must also be recognised that economic growth has led to a rise in incomes in real terms, and this has favoured the acquisition and use of the private car. Further, the real costs of private car use tend to decrease, thus contributing to the continued growth of traffic.

As leisure activities become more common, demand for public transport is diminishing, as the travel patterns become too complex for such transport to cater for them appropriately. The increase in mobility is accompanied by a decline in the use of public transport, a fact that can be explained by the amount of time devoted to leisure activities, where in many cases public transport provision falls short of requirements. These are indeed established facts and such trends are difficult to reverse. However, the challenge has to be taken up and, if greater use is to be made of public transport, it will first be necessary to improve the quality of service and introduce new technologies in the transport sector in general. Better quality public transport also has to be planned and this can likewise be a source of considerable difficulties in such cases as the provision of services between the outlying districts of towns, for example. Here we see one of the main reasons for the crisis in funding public transport: the larger the town, the more costly it becomes to operate such transport. Accordingly, as already mentioned, the feeling prevailed throughout the Symposium that, while some room to manoeuvre does exist, it is difficult to reverse the trend towards use of the private car. It must be borne in mind, moreover, that the nature of towns has been changing and the current pattern of increasing urban sprawl means that people are travelling over quite long distances. Here, too, public transport operators must be encouraged to provide a viable alternative at the right time. Such an alternative can be envisaged from a general standpoint, however, since a large proportion of journeys cover a distance of no more than a few kilometres.

The car user clearly does not cover all the costs generated in the form of disamenities, congestion and wastage of non-renewable energy resources. Charging systems geared to the particular circumstances can now be envisaged in both cases to ensure that the user does more to cover the costs generated. The most reasonable solution would appear to be action through the pricing mechanism (parking fees, urban tolls) to discourage the entry of cars into the towns, but it is not easy to introduce these systems, owing to the resistance of the public. Steps have to be taken to ensure that the public is able to form a clearer picture of the challenges to be faced. An information campaign is needed to notify the public and encourage them to change their attitudes. A charging system aimed at private car

users can be sufficient to fund improved public transport, although such systems are discriminatory in that they penalise low income groups. It can therefore be seen how important it is to improve public transport as a substitute for the car.

It is surprising, for example, to see that residents of newly-constructed districts have no other choice than to use their cars since connections with the existing public transport networks are not always provided. Urban planners should use public transport infrastructures as an essential element in the realisation phase. Such examples are a measure of the scale of the obstacles to be overcome if car use is in fact to be curbed. By projecting existing trends, a net growth in car fleets can be foreseen in the coming years, reaching levels comparable to current levels in the United States. It now appears clear that if the public authorities do not take appropriate measures (e.g. road pricing in congested areas) we will arrive at a situation where traffic circulation, including public road transport, will be totally paralysed. The importance of such a risk needs to be underlined.

The Symposium did not address the question of whether the present economic recession would have an unfavourable influence on mobility. In any case, it cannot be hoped to solve a problem of marked trends through the recession. As soon as growth revives, mobility will also grow.

Freight Transport

Where freight transport is concerned, the Symposium noted that the international division of labour would be increasing and be accompanied by growth in international flows of goods. Trade is increasing on a regional, national and even global basis which means that transport is developing very broadly. Another consequence of the international division of labour is specialisation in goods and services. Such developments necessarily affect the transport sector in that the services allied to transport operations become more complex. Industrial and commercial enterprises are keeping stocks at the lowest possible levels in order, amongst other objectives, to hold down costs, so there are more and more just-in-time consignments for which the transport must be available, reliable and flexible in order to cater for the specific requirements of the demand. This pattern of development is well underway but is still developing because the just-in-time system is a source of higher productivity and is a model of specialisation and improved transport supply.

In the light of these trends, it was pointed out that just-in-time transport will be faced with increasing saturation of infrastructure, since infrastructural investment by governments has not been keeping pace with growth in demand for quite some time. It therefore seems logical that the increasing congestion of infrastructure will paralyse areas of economic activity, thus affecting just-in-time transport which would be unable to cater for the logistical requirements of reliable on-time deliveries. The Symposium drew attention to the major risk involved in this connection, although some specialists pointed out that just-in-time transport operations are being organised on an increasingly efficient basis and there is no immediate question of saturation as a result of insufficient infrastructure. However, substantial financial resources will be required to cope with increases in traffic, especially where road transport is concerned. Accordingly, it is unlikely that the increase in capacity will keep pace with demand, so it is necessary to envisage a balanced development of means of transport by stressing their complementarity. To achieve such a balance by means of congestion is extremely costly in terms of wasted energy and time. Moreover, when a system is used to the limit of its capacity, as is the case for transport infrastructure, such a system becomes unstable and this can lead to total paralysis.

The possibility of transferring traffic from roads to more environmentally-friendly modes was also mentioned during the Symposium, but it has to be borne in mind in this connection that very little

capacity is available on the railways where saturation levels are also being approached. Furthermore, logistical systems rely on information technologies to monitor the movement of goods, and the railways cannot provide this type of service, especially where international operations are concerned. It was also suggested that combined transport offers means of relieving congestion on the roads, although it is necessary here to differentiate between the various techniques used. For example, it was pointed out that the "rolling road" system -- whereby the complete road vehicle is carried by rail -- is a technique whose efficiency is somewhat limited since the road vehicle and driver are inactive during the rail haul and the tare weights of wagon and road vehicle are combined so that energy is not used very efficiently. The future of the railways for the carriage of freight will have to rely on specialisation and management by individual trunk routes since rail has advantages to be exploited on major corridors where it can absorb a considerable proportion of the goods carried. By concentrating the services offered on such slots with high traffic potential, the railways can enable the community to benefit from its characteristic features: substantial throughput, protection of the environment and safety.

For sufficient capacity to be provided in rail transport, it may be possible to introduce specialised lines on the main axes, for passenger transport on the one hand and for freight transport on the other. Indeed, such a policy considerably increases rail capacity and allows for the provision of high-speed services. Accordingly, transport prices, in particular for road, should reflect the total economic costs and should no longer be restricted to basic production costs. Such an orientation is necessary for an optimum use of the potential of each transport mode. International co-operation is vital in order to attain the objective of a net rise in transport prices over a long period. This decision must be taken at international level, otherwise some countries run the risk of being hindered by their competitors.

From a more general standpoint, the Symposium also emphasized the importance of concepts of accessibility to disadvantaged areas. Agreement should be reached on the definition of accessibility indicators geared to the various types of cases to be found, thus making it easier to take policy measures and integrate the European Area more effectively by providing better interregional connections. Priorities will have to be established in this connection with due regard to the major role to be played by infrastructure of an international dimension.

As regards the environment, the Symposium showed that, while progress has been made by means of technical improvements to vehicles, the advances might well be negated as a result of the growth of road vehicle traffic. It is therefore essential to maintain the regulatory pressure to ensure that the most advanced technologies are built into motor vehicles, since intermodal transfers of traffic will never suffice to curb the damage being done to the environment. It is essential to adopt a long-term view of environmental protection since the greenhouse effect -- much of which is attributable to the transport sector -- is a slow, ongoing and irreversible process. Accordingly, the policy action taken must be as effective as possible since the behaviour of individuals is as yet barely influenced by considerations relating to the external effects of the transport sector.

ROUND TABLE 92: BENEFITS OF DIFFERENT TRANSPORT MODES

The concept of external benefits

The benefits attaching to modes of transport constitute a promising new area for research, the aim being to assess the beneficial effects of the transport sector and its modes, i.e. their contribution to economic and social development. Viewed from an integrated standpoint, transport modes have an impact on the productivity of other sectors of the economy. Until now, attention has been focused on the negative externalities of transport and of road transport in particular. Its social costs have been the subject of intense study for many years now. Differences in methodology have, however, crept in; it is also difficult to aggregate the disamenities in order to obtain an overall appraisal. That is not to say that external costs should not be recorded, evaluated and charged to whomever or whatever is responsible for them. At the same time, the external benefits should be calculated so that a balanced view may be obtained of the contribution of transport modes to economic development.

Road freight traffic, which has more than doubled since 1970, is drawing criticism today on account of the many disamenities and distortions of the terms of competition which are associated with it. It may be said that road freight transport does not "cover" its external costs. In countries such as Switzerland or Austria, this economic argument has assumed a predominantly political colouring. Yet the benefits to society of road freight transport are rarely mentioned. Such transport has accompanied -- and even prompted -- structural changes in Europe's economies by facilitating trade. Road transport has made a decisive contribution to improved living standards. The process of economic growth was initiated by the process of making goods available over a wide geographical area. Transport plays a vital role in the organisation of markets. It fulfills a dynamic function vis-à-vis the international division of labour and increased market competition. In so doing, it provides external benefits for economic agents other than those who pay for its services, benefits that are spread throughout the economic system. Better transport facilities boost productivity and stimulate innovations, and it is from this that these economic agents benefit.

Road transport has been instrumental in extending the scope for production and the range of consumer choice. Given the ease with which it can be adapted to the diversification of shippers' requirements, road freight transport has become the dominant mode on the market. Road and rail used to be complementary to one another; now the one replaces the other, even though attempts have been made to reintroduce complementarity through combined transport. In any event, optimum efficiency cannot be achieved unless the external benefits of each transport chain are established simultaneously. What has to be ascertained is whether external costs are offset by external benefits.

Some of the specialists at the Round Table thought that the benefits of transport outweigh costs, however high such costs might be for the various modes in the system, roads in particular. They took the view that there is tangible evidence to show that progress in the field of transport has made our economies more efficient. Others considered that resources should be allocated as efficiently as possible in order to obtain optimum results. They saw the balance between external benefits and costs as a way of influencing demand for different services. To do this, it would be necessary to determine all externalities with a view to internalising them. In practice, this is difficult to do. The example of carbon dioxide pollution alone shows how hard it is to assign responsibility to any particular source. The problem here is that of defining the concepts involved. Nonetheless, it is essential to ascertain

what the external benefits are in relation to externalities as a whole and also in relation to the returns of surplus to producers and consumers.

It might also be asked whether external benefits are derived from transport operations or solely from transport infrastructure, insofar as benefits accruing from infrastructure are attributed to the vehicles travelling on it. In the complexity of regional development, infrastructure is a necessary but insufficient requirement since other factors, such as a local employment market and R&D investment, are needed to create the right environment for regional change and development. Firms will respond to this environment by innovating, and generating various types of demand which will in turn have an impact on infrastructure and the related transport services.

As matters stand, it is quite clear that more progress has been made in the study of costs than that of benefits, partly perhaps owing to the fact that external costs are mostly generated by effects over the short term (traffic congestion, accidents), pollution being an exception in that its effects are lasting and difficult to determine. External benefits result in economic development, which is to say that transport serves to increase net output. It is therefore extremely difficult in industrialised countries to identify external benefits. Some specialists believe that, if such benefits were to be taken into account, they would offset the external costs of the transport operations. External benefits could perhaps be defined along the same lines as external costs, that is, as benefits generated by certain services but for which the author of the benefits receives no reward. The benefits here would accrue to third parties outside the transport system. It has also to be understood that essential innovations can never be totally internalised. Some externalities may be found among third parties outside the activity in question. These external benefits may be compared to a chain reaction, but very thorough studies are called for in order to ascertain their impact insofar as some of the consequences of a chain reaction necessarily elude any analysis of indirect effects. Some of the specialists at the Round Table accordingly felt that any endeavours to identify beneficial externalities was fraught with difficulties and that their evaluation might be left to the politicians obliged to make major social policy choices.

Modes of transport and external benefits

Where freight is concerned, shippers have their own specific transport requirements. International road haulage has expanded greatly, adjusting to demand much better than rail was able to do. Today's transport specialists are particularly concerned with logistical systems which are based on the "just-in-time" principle: road transport, by responding flexibly to demand, enables enterprises to reduce their inventory levels and so improve profitability. The method involves a large number of journeys at less than full load, however, and so adds to road freight traffic volume. The resulting harm to the environment cannot be overlooked. Once again, the question of the trade-off between positive and negative externalities arises. There is a spatial aspect to the problem: in congested urban areas, external costs are heavy and can be internalised on a selective basis. In the open country, where there is no substitute for road transport, a charging system would impede flows of traffic and communications whereas the aim should be to promote them. This factor argues in favour of road pricing for areas saturated by car and lorry traffic.

During the Round Table, the question of quantifying external benefits was raised, and a number of different methods are currently being tried. While still only estimates, they do however indicate that a substantial proportion of the growth in European economies is attributable to transport operations. The broadening of markets and the elimination of obstacles to trade are largely due to flexible and reliable transport. The effects are considerable. What is involved is a dynamic process and a force that triggers that process. In this context, detailed information is needed as a basis for valid assessments.

Moreover, if comparisons are to be made of positive and negative externalities, an appropriate methodology is called for.

Not all external costs can be expressed in monetary terms. Evaluation must take account of the fact that thresholds for perceiving and accepting disamenities vary from country to country. High external costs constitute a challenge to find the measures and technologies to reduce them. Market mechanisms must be associated with measures for integrating technological progress. It is also important to distinguish the indirect effects of transport from its external benefits. Methods exist for detecting direct and indirect effects, notably by means of impact studies, but these are all of a commercial nature. The external benefits of transport are not, however, specifically commercial. They are global benefits by virtue of their contribution to economic growth.

A number of the Round Table specialists felt that there was a risk of the economic benefits of transport being ignored or, more precisely, of their being insufficiently taken into account due to pressure from ecological arguments. External benefits may also extend beyond national boundaries and span a number of decades, an example being the way in which transport has contributed towards European cohesion. It will therefore continue to be very difficult to assess external benefits other than on an empirical basis. Many methodological hurdles remain before external costs and benefits can be measured. In the meantime, the choice of modes of transport suited to needs -- for example, public transport in urban areas -- must be encouraged. It is also important to seek to ensure that modes complement one another rather than simply compete. What is called for is an integrated approach whereby the transport sector is regarded as a system made up of complementary parts. From this point of view, technological progress should help to improve the performance of the entire transport system. Competition must be maintained, however, as it plays an active role in keeping down costs. Certain participants felt that there was insufficient competition in rail transport, and therefore welcomed the separation of infrastructure from the operational side. Another problem affecting rail is the loss of capacity attributable to the use of lines for both passenger and freight traffic whereby train speeds are reduced. As the example of the TGV shows, specialisation of lines results in greatly increased capacity and speed.

Where road transport is concerned, social costs have been the subject of study for a long time, but benefits have received attention only recently. There are major methodological obstacles to determining whether or not the price of transport is a source of a number of positive effects. In any event, the following different effects may be noted:

-- A quality of service effect, insofar as a variety of services can be obtained within a very short time. Road is also particularly flexible in adapting to the needs of the economy.

-- An innovation effect, based on ongoing technological progress whereby new products are made available and supplied uniformly throughout the country.

-- Productivity gains by road haulage operators whereby cost reduction has a positive linkage effect. Logistical organisation is a product of hauliers' reduced costs.

-- Savings in macroeconomic costs; transport enables markets to expand and promotes the international division of labour. These factors generate productivity gains which propagate in such a way that the economy as a whole becomes more productive.

-- A financing effect, whereby surplus funds result from road use.

-- An employment effect, since road haulage, unlike many other sectors, continues to create jobs.

-- A contribution to regional development, since road transport's close-knit territorial coverage encourages a more uniform distribution of activities and so curbs excessive concentration.

Conclusions

A number of different methods of quantifying the various external benefits are conceivable and should be compared and discussed so that precise results can be obtained. It is likely to be found that co-operation and competition among modes should be promoted simultaneously. The spur of competition is needed in order to achieve gains in productivity, but provision must also be made for the coverage of all costs so that the sector can approach the optimum, i.e. probably involving better co-operation among modes. Where external benefits are concerned, however, it is difficult to compare modes, since leaving aside private rail sidings, only road hauliers can offer door-to-door service. The fact that this avoids transfers of loads means that goods are carried more safely. Accordingly, a whole set of criteria can be drawn up and it can be shown that road haulage offers benefits that can, if needs be, offset negative externalities. It is therefore important that reliable means be found to quantify external effects relating to the transport sector.

ROUND TABLE 93: THE RELATIONSHIP BETWEEN REGIONAL POLICY AND TRANSPORT AND COMMUNICATION NETWORKS

The debate on the role of transport in regional development policies is not new insofar as transport infrastructure has long been central to such development, the two often being viewed as indissociable. Indeed, infrastructure policies tend to be required to make up for shortcomings in regional development. Other development factors -- education, research potential, technological progress, labour market -- have been identified more recently. Infrastructure issues are still key ones, even though it is now clear that the effects of new infrastructure cannot be assumed to be systematic, reason enough to beware of trumpeting the virtues of high-speed travel, or even to expect perverse effects from any new infrastructure. Be that as it may, it is as well to bear in mind from the outset that the positive effects of new infrastructure are not to be overestimated since it cannot work miracles. Accordingly, the round table discussions focused on the integration of peripheral areas and ways in which high-speed rail can further such integration.

Integration of peripheral areas

An area can be considered peripheral from a number of standpoints: political, geographic or economic. Central Europe, for example, is "central" from a geographic rather than an economic standpoint. There is no doubt that transport and telecommunications help to promote integration, so transport system standards and specifications should be harmonized. Furthermore, infrastructure pricing should be geared to encourage the extension of transport networks toward peripheral areas.

As high-speed rail systems develop, traffic-corridors are created and cities located along them compete keenly for stations on the line. The systems are designed to serve only major centres and have few intermediate stops so that commercial speed remains high. This means that the areas in between are not necessarily developed. In cases where only one stop is planned, competition for it among the

cities concerned is fierce. In terms of regional development, it is important to optimise the use of a new station by providing feeder services to nearby regions. Neighbouring towns and local authorities must also be encouraged to co-operate, so it can be seen that the concepts of peripheral and centre are by no means clear-cut.

On a different scale, efforts are now underway to speed up the integration of former planned-economy countries, notably by means of transport infrastructure. Here again, the issue is one of opting for new routes or renovating lines whose importance diminished with the rise of political barriers. While the aim is to establish private initiative as the driving force, the State still has a contribution to make. Economic growth is to be boosted by promoting small enterprises, but should the impetus come from the public authorities or from a plethora of private initiatives? It is unlikely that existing institutions are the best suited to promote regional development, i.e. to ensure that a range of activities are spread uniformly throughout the territory. Given the scarcity of financial resources, moreover, choices have to be made between competing projects. It is reasonable to assume in this case that priority will be given to the reconstruction of roads since they are more extensively used than railways.

The countries of the former eastern bloc are still in the process of economic and social change. They tend to look outside their borders for solutions and financing, since they lack the resources required for reconstruction. They also have to introduce innovations such as the calculation of an economic return when selecting public investment projects, which involves the use of harmonized methods of project appraisal, a marked departure from past practice. The various factors that now have to be taken into consideration include identifying available funding options, deciding what options and variants should be considered, and determining how to repay loans and write off investment. These countries need to develop an optimum combination of methods used in countries with market economies. This calls for the reshaping of information, management and decision-making systems in order to make rational choices and clear-cut economic assessments. An overall approach is needed if funds are to be obtained from international financial institutions. More generally, financing methods have to be revised so that they cater for existing needs in Europe. The fact remains, however, that economically weak areas are still dependent on foreign aid.

Reservations do of course exist about the assumption that transport infrastructure automatically stimulates economic development. It is no doubt purely force of habit that continues to promote the view that regional development is dependent on highly developed infrastructure. In fact, the provision of new infrastructure has few short-term effects, while longer-term effects are hard to determine. The causal links are complex: development cannot take place without infrastructure, but it has yet to be shown that infrastructure will trigger the expected development. Infrastructure therefore seems to be a necessary, but insufficient, prerequisite and there may be some incompatibility between short- and longer-term needs and benefits.

Past experience has shown that any major breakthrough in transport technology is accompanied by social change. High-speed travel is nothing new; the advent of the railways, private cars and airplanes in each case gave rise to substantial increases in travel speeds. At any given moment, one mode of transport may enjoy a decisive edge over its competitors. This depends on how valuable time is considered to be in the particular society. If a mode of transport is to gain greater acceptance, the value of the time it saves must be compatible with the cost of the service. High-speed trains have made it possible for round-trip business travel and meetings to take place on the same day, resulting in considerable savings of time. It is possible to accomplish something in a single day that could not be done before. However, high-speed rail most benefits urban centres and has the greatest effect on large built-up areas. High-speed rail can, in fact, be described as urban transport between megalopolises.

Large-scale infrastructure and regional development

A high-speed rail line is a very costly investment for which an economic return can only be obtained on runs between major centres. A tunnel effect occurs along the immediate route. Such investment can serve to create an integrated network of major European centres. To ensure that high-speed travel serves regional ends, regional services have to be linked up with those to regional centres. The high-speed trains must have local or regional relay services, as it were. This calls for co-operation among those concerned so as to ensure that roles and responsibilities are clearly determined. In the case of the French TGV, segregation in terms of geography led to an untenable segregation in social terms. The TGV has deliberately made itself more democratic by means of a fare structure that is not prohibitive and by providing capillary service over regional areas. For example, the TGV established air and road transfers to rail and generated new traffic. The success of the Paris-Lyons TGV service for business travel is attributable to the fact that users can combine their travel and work in a single day. Over and above the question of a financial return, therefore, a high-speed train can generate a considerable social return by both saving time and contributing to regional development, a combination of effects that can be determined only by multi-criteria analyses. Account also has to be taken of the ways in which high-speed services benefit property owners. Offices located near a high-speed station clearly increase in value. Local and regional tax systems should take the appropriate steps vis-à-vis those who benefit from a "high-speed" operation so as to correct the redistribution effects of a new infrastructure.

The impact of motorways on development in Southern Italy can be taken as another type of example in that this infrastructure, instead of fostering activity in the south of Italy, enabled industries in the north to supply the south. It is therefore very difficult to decide what should be done by answering the twofold question as to where new infrastructure should be built and how quickly. In this complex, the dynamics of urban activity, economic growth and the pull of infrastructure are interrelated, with the infrastructure simply being laid down in the wake of the growth in activity. Specific instruments (education, R&D, infrastructure) correspond to specific development stages in the process of consolidating a region's potential.

Some of the specialists present considered that a high-speed train system would not benefit countries in transition to a market economy. The success of the TGV is based in part on the fact that the number of service activities has been increasing and they have been located at specific centres. In these circumstances, only advanced economies can benefit from investment in a high-speed system. The specialists also felt that resources could be allocated more efficiently by re-establishing the links that existed before Europe was divided into two blocks, always with the proviso that high-speed rail might be introduced later. If only because of the ubiquitous nature of road services, the short-term priority would seem to be road infrastructure. What has to be borne in mind in this overview is the need to link peripheral areas to the centre of Europe, but road and air transport will probably be the first to serve as catalysts in this respect.

A new technology in the transport sector can modify space-time relations, and the breakthrough in high speed has led to a redefinition of regional development policies. It is first necessary to discount the assets and disadvantages of a region in order to derive the greatest benefit from the "high speed" effect, an effect that is confined to economic areas which in fact have access to the high-speed line. A high-speed train cannot be compared to a motorway whose many interchanges enable it to provide a much finer coverage of a territory than can be achieved by the train. In between the train's scheduled stops, there might well be a tunnel. Corridors may therefore develop through poorly-served areas. An infrastructure as expensive as a high-speed line depends for its viability on population density. Countries such as Belgium, for example, no longer have any uninhabited regions, so most travel is over

short distances. Old lines may be saturated, while a new dedicated high-speed line may not, so this new infrastructure can be used more efficiently in the interval between high-speed trains by running trains over shorter distances and thereby achieving substantial savings in time. A motorway also relieves the existing network in a similar way. High-speed lines may therefore create new spare operating capacity which must be exploited. Account must also be taken of the fact that, if services to major centres are irregular, regional transport may become disoriented. Similarly, interregional transport services have to be maintained at an adequate level to prevent the territory being separated into areas with high-speed service and those without. From a budgetary standpoint, therefore, major urban centres may subsidise less well-equipped regions to which tax revenues are transferred, as is happening in Switzerland.

Conclusions

Thanks to the time saved by means of new technologies such as the high-speed train, particular slots in the space-time continuum can be mastered. However, if high-speed travel is to be a success, it is necessary to have the right social conditions, i.e. the society in question has to recognise the value of time. The financial cost of a high-speed rail system and the correlative need for significant savings in time, mean that not all areas can be served by the system. The major centres are therefore being strengthened and two types of area are being created, those with and those without the system. In comparison, motorway systems offer considerable access, since all that is needed to serve a major area is an interchange. Interchanges do in fact often become focal points for activities. However, the promotion of regional development calls for more than simply transport infrastructure, and other approaches have to be adopted if economic progress is to be achieved. In other words, the infrastructure can and must be backed up by many other qualitative factors (labour market, investment in applied research, high standard of living). Accordingly, any regional policy that is worthy of those who shape it locally must be one that prompts regions to compete. What is more, regions must be prepared in such a way as to enable them to compete; if not, their efforts are doomed to failure.

D. DOCUMENTATION

The work carried out in 1990 and 1991 on the development of new procedures and software to speed up the input of data to the ICTED[1] international documentation system has now borne fruit with the widespread adoption by users of the 3.1 release of the DOC-STAR (c) program. The program itself has been compacted by a consultant employed by ECMT, and can now be stored on a single diskette which is easier to distribute to users. Furthermore, several organisations have started using the "research" version of the program to forward updates on their research work, thus reducing the time taken by the Secretariat to compile lists of work in progress.

In addition to compacting the software, a consultant has also written a simple program that allows users to change the language in which the ECMT thesaurus is presented. The Portuguese Delegation has already used this program to replace German with Portuguese. ECMT intends to load the new Portuguese version into the system, and later in 1993 will supply the Portuguese Delegation with a properly formatted version of the software. It should be noted, however, that this service is provided simply to facilitate the work of national documentalists, and that English, French and German remain the official working languages for the system. Work is currently proceeding on a Spanish version on the above understanding.

In addition to normal maintenance work, the same consultant has also written a program designed to count the number of descriptors used by data suppliers. This program, which runs on MISIS software, will allow the system operator to refine the list of descriptors according to the use that is actually made of terms.

Following their accession to ECMT, the new Member countries, Hungary, Poland, and the Czech and Slovak Republics, have sent representatives to documentation meetings and reaffirmed their commitment to international co-operation. At the request of many of the delegations, a Hungarian Delegate has been made a permanent member of the Computer Group. He will be responsible in particular for checking that new MISIS applications are relevant to all centres using MISIS software. He may eventually be able to present individual requests for specific applications of potential benefit to all users, and may be asked to help with the drafting of specifications for new or modified software programs.

Lastly, with regard to working procedures, it is worth mentioning that the new version of the **ICTED Operating Rules** has now been adopted by all ICTED correspondents. Versions of this document in all ECMT official languages should be available for distribution in 1993.

The ECMT Secretariat, with support from local authorities and experts, gave a presentation of on-line search procedures for TRANSDOC on ESA-IRS[2] at two major international events, the **ECMT's Twelfth International Symposium,** held in Lisbon from 4 to 6 May, and the **6th World Conference on Transport Research** held in Lyon from 29 June to 3 July. As on previous occasions, the Secretariat offered sample bibliographies, broken down by subject area, to economists attending these events.

As part of on-going collaboration with the **International Road Research Documentation** centre (OECD/IRRD), ECMT continued to study the feasibility of using a CD-ROM system to disseminate the literature stored in the IRRD and TRANSDOC databases. Negotiations with firms which had submitted bids relating to this system were initially held up as a result of the decision by some of IRRD's partners to review the implications of the project. All outstanding technical problems were successfully resolved by the end of the year, however, and it should now be possible to propose an economically viable project on which a decision can subsequently be taken in 1993.

Co-operation between the **International Union of Railways (UIC)** and ECMT has taken on a new lease of life over the year. As part of a new project known as **DEFI (International Economic Rail Documentation)**, the UIC Secretariat plans to develop a bibliographic database accessible on the ESA-IRS server. The organisation of this new system is closely modelled on the administrative and technical framework for the TRANSDOC database. Furthermore, UIC has decided to use the MISIS program developed by UNESCO -- which is already widely used by rail networks, ECMT and certain ICTED correspondents -- as the command language for its new database. After discussing their plans with officials at the Space Agency, however, it became clear to the UIC authorities that one way of getting their project up and running quickly, and at lower cost, would be to collaborate with ECMT and supply data directly to the TRANSDOC system. Given that the volume of the data input to TRANSDOC is still too low, ECMT itself would have everything to gain from joining forces with UIC in promoting the concept of a comprehensive land transport database. Before active and practical co-operation between the two organisations can be resumed, however, the UIC/ECMT agreement of 1982 will have to be updated so that the rights and obligations of each party are clearly defined. These requirements should be met by 1993.

The number of on-line searches made on the ESA-IRS server increased by 3 per cent this year, despite a harsh economic climate in which the income of most major databases declined. BAST[3] in Germany has decided to download the TRANSDOC database, along with other bibliographic databases it had been operating on its server, in order to reduce management costs. This change in policy will undoubtedly generate new custom for the ESA server and thus help to maintain its level of activity.

Notes

1. International Co-operation in Transport Economics Documentation.
2. European Space Agency, Information Retrieval Service, Frascati, Italy.
3. Bundesanstalt für Strassenwesen, Bergisch Gladbach, Germany.

Chapter IV

EXTERNAL RELATIONS

OECD

Under the terms of the Protocol setting up the Conference, it is attached to the Organisation for Economic Co-operation and Development (OECD) for administrative purposes. Informal exchanges of views take place at regular intervals in the context of the OECD/ECMT Liaison Committees which usually meet once a year. The contacts go far beyond these meetings, however, since the nature of the work in both Organisations in fact gives rise to co-operation at various levels and in a number of specific sectors.

European Communities

An agreement provides the basis for the European Communities to be regularly represented at sessions of the ECMT Council of Ministers. The Commission's services are represented on the Committee of Deputies and, in many cases, on the ad hoc Groups. At each session of the ECMT's Council of Ministers, the current President of the Council in the European Communities reports on the latest developments in the Common Market. Virtually permanent contacts are maintained between the Commission's services and the Secretariat of the Conference. In January each year the Committee of Deputies devotes an informal session to a dialogue with representatives of the Communities on particular issues of common interest.

United Nations Economic Commission for Europe

The Executive Secretary of the Economic Commission for Europe is now invited on a regular basis to attend meetings of the Council of Ministers. The Director of the UN/ECE Inland Transport Division customarily attends meetings of the ECMT Committee of Deputies. Furthermore, the Secretary-General of the Conference usually takes part in the first meeting of the year of the Inland Transport Committee of the UN/ECE. Working relations are maintained at an appropriate level with both the subsidiary bodies and Secretariat of the UN/ECE. The ECMT is usually actively involved in the preparation and updating of a number of legal instruments (international conventions and agreements) administered by the UN/ECE.

Council of Europe

Every two years the Parliamentary Assembly of the Council of Europe reviews ECMT's activities on the basis of a report which is discussed in the appropriate Committee before a plenary debate is held, usually in the presence of the Chairman of the ECMT who then also addresses the Assembly. The Parliamentary Assembly sets out its views and proposals concerning ECMT activities in a resolution which is submitted for a vote on that occasion[1].

Eurofima

The European Company for the Financing of Railway Rolling Stock was established in 1955 on the initiative of ECMT and is based in Basel. Its aim is to assist the associated railways to acquire railway rolling stock as required for their operations. The national railways of 16 of the ECMT's longer-established Member countries are shareholders and they have recently been joined by the Hungarian national railways. Eurofima reports annually on its activities to ECMT.

Non-governmental International Organisations

The international non-governmental transport Organisations are invited in the first month each year to a hearing on all topics scheduled to be dealt with in that year. More specialised hearings are organised by ECMT working groups. Moreover, as often as possible, the Secretariat takes part in activities organised by the International Organisations themselves. In this way ECMT tries to take the best possible account of the views of transport professionals, users and personnel and make its policies known to them.

Note

1. Resolution No. 977 (1992) on European transport problems, as adopted by the Parliamentary Assembly of the Council of Europe, on 6 February 1992, can be found in Annex IV.

Part Two

TRENDS IN THE TRANSPORT SECTOR 1970-1991

TRENDS IN THE TRANSPORT SECTOR
1970-1991

Introduction

This report essentially describes the situation of the transport sector in Europe in *1991* and, with the help of charts, shows the changes that have occurred since 1970.

The assessment of recent trends in Europe has been based on data provided by 22 ECMT Member countries[1]. The volume of traffic has been calculated in terms of passenger-kilometres and tonne-kilometres. In order to base overall trends on many countries as possible, the indices used for several charts include estimates of traffic where 1991 figures are not available for certain countries.

For the first time, a special section at the end of this annual leaflet sets out some statistical data on trends in the transport sector in three new Member countries of the Conference, namely the Czech and Slovak Federal Republic, Hungary and Poland. Owing to the specific characteristics of the transport systems in these three countries with economies in transition, and the radical changes these systems are undergoing, it was thought inadvisable to take account of these data in the aggregate figures calculated for the ECMT as a whole. There is accordingly no break with the figures published for previous years in the statistical series used.

General situation

Economic activity remained sluggish throughout 1991 in almost all ECMT Member countries and even showed a downturn in some of them. Primarily owing to the fall in business investment, average growth of Gross Domestic Product (GDP) in the OECD European countries was only 1.1 per cent in real terms in that year, thus continuing the phase of slower economic development begun nearly two years earlier, a pattern that was particularly marked in the industrial sector where overall output fell by 0.3 per cent. This did not however prevent some countries from recording substantial increases in GDP during 1991, the best results being in Germany (+3.1 per cent), Luxembourg (+3.1 per cent) and Austria (+3.0 per cent) on the strength of the economic spin-off from the reunification of Germany but whose positive effect weakened sharply during the second half of the year. However, other countries such as Finland (-6.1 per cent), United Kingdom (-2.2 per cent), Sweden (-1.2 per cent) and Switzerland (-0.5 per cent) experienced a much deeper economic recession.

The bleak economic climate necessarily had an effect on *freight traffic* which, in terms of tonne-kilometres, was more than 2.8 per cent down from the previous year (-0.7 per cent if oil pipeline traffic is excluded). All modes without exception recorded a fall in freight, although road (-0.3 per cent) and rail (-0.6 per cent) were affected to a lesser extent than inland waterways (-4.0 per cent). Oil pipeline traffic is a special case in that the spectacular fall is entirely attributable to the fact that the export of Iraqi oil through Turkey came to a halt. In the other countries, however, oil pipeline traffic tended to increase.

Passenger traffic was also affected by the poor business climate and lack of consumer confidence since it increased on average by only 1.1 per cent in the ECMT countries to a total of nearly 3 910 billion passenger-kilometres which, though certainly up on the figure for 1990, was the lowest year on rise since 1983. This accordingly confirmed the trend towards slower growth since 1989 after the very rapid rates of expansion in the 1986-1988 period which had averaged some 4.7 per cent per year. Road transport again accounted for most of this increase in passenger traffic, while rail traffic was only slightly up on the previous year. It is worth noting that, for the first time since 1983, bus and coach traffic increased more sharply than that by private car which suffered as a result of the unfavourable trend in household incomes.

Overall, therefore, the change seen in the trend in passenger and freight traffic in 1990 was confirmed in 1991, thus consolidating the break with the particularly sustained expansion during the preceding years, although the slowdown was not on the same scale everywhere in view of the differences in the economic climate prevailing in the various ECMT Member countries.

Following the positive trend recorded in 1990 after poor results in the two preceding years, the *road safety* situation in Europe again improved overall in Europe in 1991. Not only were there fewer accidents but those occurring were also less severe, thus leading to an even more significant fall in the number of casualties and fatalities. The fact remains however that the number of killed and injured on all European roads in 1991 was higher than that recorded in 1985, and it is also a matter of considerable concern to see a further deterioration in safety levels on the road networks of a number of countries.

Freight transport

The volume of *rail freight traffic* diminished in 1991 (-0.6 per cent) for the second year in succession and was only slightly above its 1988 level. The figures published by the UIC (International Union of Railways) show that the fall was accounted for entirely by domestic traffic which contracted by 2.3 per cent while international traffic grew by 1.2 per cent. Although the Portuguese (+12.3 per cent), Norwegian (+4.6 per cent) and Danish (+4.0 per cent) railways did in fact see their traffic increase appreciably, those results did not offset the falls of over 4 per cent recorded in Finland, Spain and Sweden. Total freight traffic on the railways of the ECMT countries in 1991 was equivalent to only 89.5 per cent of that in the peak year of 1974. On the basis of the initial data available, rail container traffic -- which had shown exceptional dynamism in the preceding years with average annual growth of nearly 6 per cent from 1986 to 1989 -- was also affected by the curb on economic growth. As in the preceding year, growth in this type of traffic was far less sustained than in the past. The data submitted by 17 countries (A, B, CH, D, DK, E, F, GR, I, IRL, L, NL, P, SF, TR, UK, YU) showed that 59.2 million tonnes were carried in 1991, or 2.4 per cent more than in 1990, while the number of containers loaded by the same railways also increased by 3.4 per cent. In the international context, continental European container traffic handled by Intercontainer reached a new peak of 468 457 TEU (20' equivalent unit), up by 4.8 per cent on the previous year. The statistics issued by the UIRR (International Union of Rail/Road Combined Transport Companies) showed that the increase in piggyback traffic in 1991 was far less marked than in previous years (although the number of international consignments still increased substantially by 8.1 per cent, largely accounted for by transit through the Alps via Austria and Switzerland, while domestic traffic diminished by 0.2 per cent), with swap bodies accounting for 62 per cent of total traffic using this technique and the "rolling road" technique improving to take 19 per cent.

FREIGHT TRANSPORT
Thousand million tonne-kilometres

	RAIL (1)						ROADS (2)						INLAND WATERWAYS (3)						PIPELINES (4)						TOTAL FREIGHT (5) = (1) + (2) + (3) + (4)					
	1970	1980	1985	1990	1991	91/90 *	1970	1980	1985	1990	1991	91/90 *	1970	1980	1985	1990	1991	91/90 *	1970	1980	1985	1990	1991	91/90 *	1970	1980	1985	1990	1991	91/90 *
A	9.87	11.00	11.90	12.68	12.86	+ 1	2.86[1]	7.93[1]	6.07[1]	6.75[1]	7.11[1]	+ 5[1]	1.29	1.56	1.55	1.66	1.48	- 11	3.62	7.06	5.00	6.37	6.65	+ 4	17.65[1]	27.54[1]	24.52[1]	27.46[1]	28.11[1]	+ 2[1]
B	7.88	8.04	8.28	8.35	8.15	- 2	13.09	18.31	22.11	32.05			6.73	5.85	5.06	5.45	5.23	- 4	0.27	1.80	0.81	1.02	1.13	+ 10	27.97	34.00	36.26	46.88		
CH	6.59	7.39	7.05	8.30	8.11	- 2	4.16	6.03	7.15	10.32	10.02	- 3	0.17	0.16	0.15	0.15	0.15	- 3	1.21	1.11	1.16	1.17	1.23	+ 5	12.13	14.69	15.51	19.94	19.50	- 2
CS	55.91	66.21	66.20	59.49	49.93	- 16	10.09	21.34	21.46	23.31	17.43	- 25	2.43	3.59	4.36	4.42	3.89	- 12	6.36	9.78	9.02	7.51	6.18	- 18	74.80	100.92	101.04	94.73	77.44	- 18
D	70.50	63.80	62.96	61.40	61.90	+ 1	78.00	124.40	132.20	169.80			48.81	51.44	48.18	54.80			15.12	13.10	8.68	11.74	11.81	+ 1	212.43	252.74	252.02	297.74		
DK	1.85	1.62	1.76	1.79	1.86	+ 4	7.80	7.85	8.34	9.35	9.03	- 3													9.65	9.47	10.10	11.14	10.89	- 2
E	10.34	11.30	12.08	11.61	10.88	- 6	51.70	89.50	110.50	150.00	152.25	+ 2							1.02	3.01	3.17	4.22	4.78	+ 13	63.06	103.81	125.74	165.83	167.91	+ 1
F	67.58	66.37	55.78	51.53	51.48	0	66.30	98.10	84.50	114.80	117.20	+ 2	12.73	10.87	7.59	7.17	6.83	- 5	28.18	34.67	24.14	19.61	22.50	+ 15	174.79	210.02	172.01	193.11	198.02	+ 3
GR	0.69	0.81	0.73	0.68			6.96		10.35																7.65		11.09			
H	19.82	24.40	22.31	16.78	11.92	- 29	5.82	11.40	12.72	15.16	13.97	- 8	1.76	2.15	1.86	2.04	1.72	- 16	1.04	4.39	4.85	5.29	4.97	- 6	28.44	42.34	41.73	39.27	32.58	- 17
I	18.07	18.38	17.97	21.22	21.89	+ 3	58.70	119.60	144.13	177.95	182.75	+ 3	0.35	0.20	0.20	0.12	0.09	- 27	9.07	11.94	9.01	11.10	11.93	+ 7	86.19	150.12	171.31	210.38	216.65	+ 3
IRL	0.55	0.62	0.60	0.59	0.60	+ 2		5.01	4.52	5.13																5.64	5.12	5.72		
L	0.76	0.67	0.65	0.71	0.71	+ 1	0.14	0.28	0.21				0.30	0.33	0.30	0.34	0.33	- 2							1.20	1.27	1.16			
N	1.45	1.66	1.77	1.63	1.71	+ 5	3.19	5.25	6.42	7.69	7.51	- 2										2.06	2.51	+ 22	4.64	6.91	8.19	11.38	11.72	+ 3
NL	3.71	3.40	3.27	3.07	3.00	- 2	12.40	17.67	18.43	22.89	23.30	+ 2	30.74	33.48	32.79	35.66	32.37	- 9	4.08	5.04	4.29	4.87	5.43	+ 11	50.92	59.59	58.78	66.50	64.10	- 4
P	0.78	1.00	1.31	1.59	1.78	+ 12		11.80		10.92																12.80		12.51		
PL	99.26	134.74	120.64	83.53	65.15	- 22	15.76	44.55	36.59	40.29	39.64	- 2	2.30	2.33	1.41	1.03	0.74	- 29	6.98	17.12	17.00	13.89	10.39	- 25	124.30	198.72	175.64	138.74	115.91	- 16
S	17.31	16.65	18.44	19.61	18.70	- 5	17.80	21.36	21.18	26.52	25.37	- 4													35.11	38.01	39.62	46.13	44.07	- 4
SF	6.27	8.34	8.07	8.36	7.63	- 9	12.40	18.40	20.10	25.40	23.80	- 6	4.40	5.20	4.20	4.03	3.56	- 12							23.07	31.94	32.37	37.79	34.99	- 7
TR	6.09	5.17	7.96	8.03	8.09	+ 1	17.45	37.61	45.63	65.71	61.97	- 6							1.34	13.80	30.71	48.53	10.47	- 78	24.88	56.58	84.30	122.27	80.53	- 34
UK	24.50	17.64	15.37	15.80	15.30	- 3	85.00	91.10	100.80	132.90	127.20	- 4	0.30	0.40	0.40	0.20	0.20	0	2.67	10.08	11.25	11.04	11.07	0	112.47	119.22	127.82	159.94	153.77	- 4
YU	19.25	25.02	28.72	23.15			7.95[1]	19.00[1]	21.18[1]	18.33[1]			4.38	4.98	3.93	3.76			0	2.16	2.50	3.46			31.58[1]	51.15[1]	56.33[1]	48.69[1]		
ECMT	274.03	268.87	264.66	260.10	E 258.50	- 1	438.93	682.39	748.94	E 970.69	E 967.92	0	110.21	114.47	104.35	113.34	E 108.79	- 4	66.58	103.77	100.71	125.17	E 92.96	- 26	887.75	1 167.05	1 216.02	E 1 466.45	E 1 425.09	- 3
ECMT = 19 countries: A, B, CH, D, DK, E, F, GR, I, IRL, L, N, NL, P, S, SF, TR, UK, YU.							ECMT = 16 countries: A, B, CH, D, DK, E, F, I, L, N, NL, S, SF, TR, UK, YU. 1. Transport for hire and reward only.						ECMT = 11 countries: A, B, CH, D, F, I, L, NL, SF, UK, YU.						ECMT = 12 countries: A, B, CH, D, E, F, I, N, NL, TR, UK, YU.						ECMT = 16 countries: A, B, CH, D, DK, E, F, I, L, N, NL, S, SF, TR, UK, YU. 1. Excluding road transport for own account.					

* - 0.5 % < 0 < + 0.5 %.
E = Estimate.

Not since 1980 had a downturn been recorded for *road freight traffic* until the 0.3 per cent decrease in 1991 when the year on rise in own-account transport was not enough to offset the very sharp fall of 2.5 per cent in transport for hire or reward. Like all the other modes, therefore, road haulage was affected by the economic slowdown, and the reduction in freight traffic was particularly marked in Finland (-6.3 per cent), Turkey (-5.7 per cent), the United Kingdom (-4.3 per cent) and Sweden (-4.3 per cent), while only Austria (+5.4 per cent), Italy (+2.7 per cent), France (+2.1 per cent), the Netherlands (+1.8 per cent) and Spain (+1.5 per cent) recorded increases. These patterns of development differing according to the country confirm -- if need there were -- that a strong correlation exists between general economic activity, as reflected by GDP, and the volume of freight carried by road. These differing patterns are similarly found for international traffic by road, as evidenced by the few indicators at present available in this connection, such as the data on the use made of the ECMT multilateral quota, even though total traffic covered by the system diminished by 4.2 per cent in 1991, thus clearly indicating that the decline in economic activity also affected the international transport market. This market has likewise been transformed as a result of the new requirements created by the opening towards Eastern Europe, and in this respect it is significant that the number of TIR logbooks issued to ECMT Member countries (aside from countries with economies in transition) increased by 2.9 per cent in 1991.

Inland waterways traffic suffered in particular as a result of the sluggish economy, a problem compounded by the long periods of low water on the Rhine which interferred considerably with fluvio-maritime traffic. River traffic fell by more than 4 per cent in 1991 to a level some 6.5 per cent below the all-time high of 1974, thus recording the worst year on results since 1985, largely owing to the very sharp downturn in the activity of the fleet in Finland (-11.7 per cent), Austria (-11.3 per cent) and the Netherlands (-9.2 per cent). Not one of the countries supplying data had an increase in traffic during the year. On the Rhine, a total of 138.3 million tonnes crossed the German-Dutch border in 1991, 3.6 per cent down from the previous year entirely as a result of the marked contraction of downstream flows of construction materials since the pressure of flows of oil products and solid fuels pushed upstream traffic to a record level. Low water affected traffic on the Moselle to a lesser extent than that on the Rhine and there was even a slight increase in the tonnages recorded at the Koblenz lock (+0.3 per cent) insofar as upstream traffic expanded appreciably. On the other hand, the full effects of the events in the Middle East were reflected in the fall of 31.2 per cent in traffic crossing Lake Van in Turkey.

The number of tonne-kilometres recorded for *oil pipelines* in the ECMT Member countries diminished by 25.7 per cent in 1991 entirely as a result of the sharp fall in traffic through Turkey (-78.4 per cent) -- which still accounted for over 43 per cent of all oil pipeline traffic in those countries in 1989 -- a situation that of course resulted from the Gulf crisis and the cessation of oil exports from Iraq via Turkey. Excluding Turkish traffic, European traffic would in fact have increased by 7.6 per cent, the highest rate of growth since 1979. The increased volume of traffic in oil products -- essentially attributable to emergency stock purchases following the Gulf crisis, together with the fact that the winter was more severe than the preceding one -- was quite substantial in Norway (+21.9 per cent), France (+14.7 per cent), Spain (+13.4 per cent) and the Netherlands (+11.4 per cent).

For many years now the modal split of freight traffic has been changing radically. This long-term trend was consolidated by the divergent results recorded for the different modes in 1991, as can be clearly seen in the following table based on data supplied by 14 ECMT Member countries[2]. It shows how road transport's share of total traffic has been increasing while that of the railways and inland waterways has diminished.

Percentage trends in market share of the various modes
Freight transport in tonne-kilometres

	1970	1975	1980	1985	1990	1991
Rail	31.3	25.3	23.2	21.2	17.4	17.3
Roads	55.2	62.9	65.9	69.3	74.2	74.5
Inland waterways	13.5	11.8	10.9	9.5	8.4	8.2
Total	100	100	100	100	100	100

In the nine countries[3] with statistics available in this connection, *short-sea shipping of freight* (national transport by sea) showed a further fall in 1991 (-0.8 per cent) for the third year in succession. While the volume of such traffic increased by 3.9 per cent in Spain and 0.9 per cent in the United Kingdom -- both countries that recorded sharp falls in 1990 -- it diminishes considerably in Belgium and Finland and especially in Portugal. Output in tonne-kilometres for this mode of transport has increased by only 4.7 per cent since 1980 in the nine countries concerned, whereas it more than doubled during the 1970s. In the same countries, the percentage trends in market shares of coastal shipping, road and rail have been as follows:

	1980	1985	1990	1991
Rail	18.8	17.1	14.5	14.4
Roads	62.9	65.9	70.8	70.9
Coastal shipping	18.3	17.0	14.7	14.7
Total	100	100	100	100

The poor economic climate prevailing in Europe in 1991 also affected sea container traffic for which gross tonnage loaded and unloaded rose by only 3.8 per cent in that year, the lowest rate of increase since 1985. The number of containers handled in ports increased by only 3.4 per cent. At no time during the 1980s was such a low year on rate of growth recorded.

Passenger transport

The number of passenger-kilometres recorded by the *railways* increased by 0.4 per cent in 1991 -- thus confirming the slowdown in growth since 1989 -- , although the figure of 285.8 billion passenger-kilometres established a new peak for this traffic which has continued to develop since 1983, rising in that time by more than 12.7 per cent, somewhat limited progress it is true. The passenger traffic situation in 1991 was not the same for all railways, however, as significant increases were recorded in the Netherlands (+15.7 per cent), Switzerland (+12.0 per cent), Luxembourg (+9.1 per cent) and Austria (+9.0 per cent) and sharp falls in Sweden (-8.1 per cent), the United Kingdom (-6.7 per cent) and Turkey (-5.6 per cent).

PASSENGER TRANSPORT
Thousand million passenger-kilometres

	RAIL (1)						PRIVATE CARS (2)						BUSES AND COACHES (3)						TOTAL ROAD TRANSPORT (4) = (2) + (3)						TOTAL PASSENGERS (5) = (1) + (4)					
	1970	1980	1985	1990	1991	91/90 *	1970	1980	1985	1990	1991	91/90 *	1970	1980	1985	1990	1991	91/90 *	1970	1980	1985	1990	1991	91/90 *	1970	1980	1985	1990	1991	91/90 *
A	6.28	7.38	7.29	8.46	9.22	+ 9		43.54	50.43	54.10	54.35	0		12.45	12.81	13.62	13.69	0		55.99	63.24	67.72	68.03	0		63.37	70.53	76.19	77.26	+ 1
B	7.57	6.96	6.57	6.54	6.77	+ 4	49.25	65.38	67.36	80.75	83.04	+ 3	9.32	9.08	8.97				58.58	74.45	76.33				66.14	81.41	82.90			
CH	8.17	9.18	9.38	11.06	12.38	+ 12	50.71	72.60	80.88	87.08	89.10	+ 2	2.71	3.78	4.23	4.74	4.97	+ 5	53.41	76.38	85.11	91.81	94.07	+ 2	61.58	85.55	94.49	102.87	106.46	+ 3
CS	20.49	18.04	19.84	19.34	19.26	0							21.42	33.75	36.62	43.38	43.07	- 1	21.42[1]	33.75[1]	36.62[1]	43.38[1]	43.07[1]	- 1[1]	41.91[1]	51.80[1]	56.46[1]	62.72[1]	62.34[1]	- 1[1]
D	38.48	40.50	42.71	43.60	44.90	+ 3	350.60	470.30	481.60	593.80			48.60	65.60	54.00	55.50			399.20	535.90	535.60	649.30			437.68	576.40	578.31	692.90		
DK	3.35	4.31	4.72	4.86	4.80	- 1	33.30	38.10	43.20	53.60	55.00	+ 3	4.60	7.30	8.80	9.30	9.30	0	37.90	45.40	52.00	62.90	64.30	+ 2	41.25	49.71	56.72	67.76	69.10	+ 2
E	14.99	14.83	17.07	16.73	16.30	- 3	64.35	130.90	119.75	164.22	167.71	+ 2	20.91	28.10	31.81	38.68	39.06	+ 1	85.26	159.00	151.56	202.90	206.78	+ 2	100.25	173.82	168.62	219.64	223.08	+ 2
F	40.98	54.66	61.72	63.74	62.30	- 2	305.00	453.00	490.00	586.00	599.00	+ 2	25.20	38.00	37.00	41.30	42.90	+ 4	330.20	491.00	527.00	627.30	641.90	+ 2	371.18	545.66	588.72	691.04	704.20	+ 2
GR	1.53	1.46	1.73	2.05					13.33				4.78	5.82	5.79				4.78[1]	5.82[1]	5.79				6.31[1]	7.28[1]	7.52[1]	7.14[1]		
H	15.17	13.71	11.21	11.40	9.86	- 14	7.27	36.00	45.80	47.00	47.00	0	13.55	26.42	28.02	24.10	22.25	- 8	20.82	62.42	73.82	71.10	69.25	- 3	35.98	76.14	85.03	82.51	79.11	- 4
I	32.46	39.59	37.40	45.51	46.43	+ 2	211.93	324.03	373.70	522.59	538.27	+ 3	32.00	57.84	68.09	84.38	90.37	+ 7	243.94	381.87	441.78	606.98	628.64	+ 4	276.40	421.46	479.18	652.49	675.06	+ 3
IRL	0.76	1.03	1.02	1.23	1.29	+ 5																								
L	0.21	0.25	0.23	0.21	0.23	+ 9																								
N	1.93	2.75	2.57	2.43	2.49	+ 2	18.48	31.30	34.14	39.67	39.34	- 1	4.16	4.88	4.77	4.88	4.84	- 1	22.63	36.18	38.91	44.55	44.18	- 1	24.56	38.93	41.48	46.98	46.67	- 1
NL	8.01	8.89	9.01	11.06	12.80	+ 16	66.30	107.10	118.00	136.20	136.70	0	11.10	13.20	13.00	13.00	14.00	+ 8	77.40	120.30	131.00	149.20	150.70	+ 1	85.41	129.19	140.01	160.26	163.50	+ 2
P	3.55	6.08	5.73	5.66	5.69	0	17.47	41.00	53.00	65.00	67.00	+ 3	4.36	7.60	9.50	10.30	10.50	+ 2	21.83	48.60	62.50	75.30	77.50	+ 3	25.38	54.68	68.23	80.96	83.19	+ 3
PL	36.89	46.33	51.98	50.37	40.12	- 20							29.14	49.22	52.09	46.30	41.72	- 10	29.14[1]	49.22[1]	52.09[1]	46.30[1]	41.72[1]	- 10[1]	66.03[1]	95.55[1]	104.07[1]	96.67[1]	81.84[1]	- 15[1]
S	4.56	7.00	6.80	6.17	5.65	- 8	55.40	66.70	71.60	85.60	87.30	+ 2	5.50	7.30	9.00	9.00	9.30	+ 3	60.90	74.00	80.60	94.60	96.60	+ 2	65.46	81.00	87.40	100.77	102.25	+ 1
SF	2.16	3.22	3.22	3.33	3.23	- 3	23.70	33.90	39.50	46.80	46.40	- 1	7.00	8.50	8.60	8.50	8.10	- 5	30.70	42.40	48.10	55.30	54.50	- 1	32.86	45.62	51.32	58.63	57.73	- 2
TR	5.56	6.01	6.49	6.41	6.05	- 6													41.31	73.39	91.57	134.99	131.03	- 3	46.87	79.40	98.05	141.40	137.08	- 3
UK	30.41	30.26	29.68	34.20	31.90	- 7	283.00	367.00	419.00	556.00	550.00	- 1	60.00	52.00	49.00	46.00	45.00	- 2	343.00	419.00	468.00	602.00	595.00	- 1	373.41	449.26	497.68	636.20	626.90	- 1
YU	10.94	10.39	12.00	11.33									13.43	29.63	31.63	24.41			13.43[1]	29.63[1]	31.63[1]	24.41[1]			24.37[1]	40.02[1]	43.63[1]	35.74[1]		
ECMT	221.88	254.74	265.34	284.58	E 285.80	0	E 1 556.36	2 244.83	2 442.17	3 071.41	E 3 107.01	+ 1	E 261.65	351.06	356.98	E 379.21	E 387.54	+ 2	E 1 859.33	2 669.29	2 890.71	E 3 585.61	E 3 625.58	+ 1	E 2 080.25	2 922.76	3 154.80	E 3 868.76	E 3 909.86	+ 1
ECMT = 19 countries: A, B, CH, D, DK, E, F, GR, I, IRL, L, N, NL, P, S, SF, TR, UK, YU.							ECMT = 14 countries: A, B, CH, D, DK, E, F, I, N, NL, P, S, SF, UK.						ECMT = 16 countries: A, B, CH, D, DK, E, F, GR, I, N, NL, P, S, SF, UK, YU.						ECMT = 17 countries: A, B, CH, D, DK, E, F, GR, I, N, NL, P, S, SF, TR, UK, YU. 1. Excluding private cars.						ECMT = 17 countries: A, B, CH, D, DK, E, F, GR, I, N, NL, P, S, SF, TR, UK, YU. 1. Excluding private cars.					

* - 0.5 % < 0 < + 0.5 %
E = Estimate.

The rate of growth for *road passenger traffic* (public and private combined) was the lowest recorded since 1983, primarily owing to the fact that *private car traffic* increased by only 1.2 per cent, a far smaller increase than in the preceding years insofar as annual rates of around 4.7 per cent had been recorded since 1986. These results show that personal mobility has also been affected by the slowdown in economic growth and its impact on household incomes. However, private car traffic now accounts for almost 84 per cent of total passenger-kilometres in ECMT Member countries. Among the countries providing data in this connection, the only three in which traffic diminished in 1991 were the United Kingdom (-1.1 per cent), Finland (-0.9 per cent) and Norway (-0.8 per cent), while the most marked rises were in Portugal (+3.1 per cent), Italy (+3.0 per cent), Belgium (+2.8 per cent) and Denmark (+2.6 per cent). *Bus and coach traffic* increased by 2.2 per cent in 1991, although the trend was not the same for all countries in that there was substantial growth in the Netherlands (+7.7 per cent), Italy (+7.1 per cent) and Switzerland (+5.0 per cent) but appreciable falls in Finland (-4.7 per cent) and the United Kingdom (-2.2 per cent). Even though public passenger transport by road showed a higher rate of increase than transport by private car in 1991, the fact remains that private car traffic expanded by 38.4 per cent from 1980 to 1991, while bus and coach traffic increased by only 10.4 per cent.

Road safety

The improvement in the road safety situation in 1990, following a number of years of poor results, was consolidated in 1991 when the number of *road accidents* in fact diminished by 0.5 per cent on average in ECMT Member countries. However, the level of safety on the roads remained lower than it had been in 1988 and certainly lower than in 1985, the best year on record. The improvement was primarily attributable to the progress made by such countries as the Netherlands (-9.5 per cent), France (-8.4 per cent), Finland (-8.1 per cent) and the United Kingdom (-7.7 per cent), since there were substantial increases in accidents in Turkey (+23.7 per cent), Portugal (+15.7 per cent) and Ireland (+7.0 per cent).

The total number of *casualties* in ECMT Member countries -- over 1 927 000 killed or injured -- diminished by 3.8 per cent in 1991. Despute this good result, the number of killed and injured on the roads in Europe in 1991 was still higher than in 1985, 1986 and 1987. There were also major differences across countries in that the number of killed and injured increased by more than 10 per cent in Portugal and Turkey in 1991 but fell sharply in Finland (-9.4 per cent), the Netherlands (-8.9 per cent), the United Kingdom (-8.9 per cent) and France (-8.7 per cent).

In 1991 there were 2 per cent fewer *fatalities* on European roads than in the previous year, but there were still more than 59 900 people killed in road accidents in ECMT Member countries. While clearly high, this figure is the lowest recorded since 1970 with the single exception of that for 1985. These general considerations should not obscure the fact that situations do of course differ considerably from one country to another since, while fatalities did indeed diminish by 12 per cent in the United Kingdom, 9.9 per cent in Switzerland, 6.9 per cent in Ireland and 6.9 per cent in the Netherlands, they increased sharply in Luxembourg by 18.3 per cent, in Italy by 13.2 per cent and in Portugal by 11.1 per cent.

ROAD ACCIDENTS
Thousands

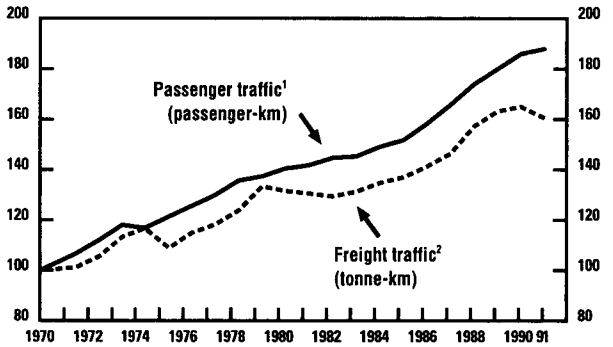
	ACCIDENTS						KILLED AND INJURED						DEATHS					
	1970	1980	1985	1990	1991	91/90	1970	1980	1985	1990	1991	91/90	1970	1980	1985	1990	1991	91/90
A	51.63	46.21	46.28	46.34	46.01	- 1	72.65	64.37	61.34	62.04	61.74	0	2.24	1.74	1.36	1.39	1.39	0
B	77.00	60.76	54.83	62.45	58.22	- 7	107.78	84.70	76.32	88.16	82.52	- 6	2.95	2.40	1.80	1.98	1.87	- 5
CH	29.00	25.65	24.30	23.83	22.82	- 4	37.68	33.57	30.74	30.20	29.10	- 4	1.69	1.25	0.91	0.95	0.86	- 10
CS	33.46	24.14	24.08	30.15	28.99	- 4	44.17	31.88	31.90	40.36	39.15	- 3	2.20	1.91	1.54	2.02	2.00	- 1
D	377.61	379.24	327.75	340.04	320.79	- 6	550.99	513.50	430.50	456.06	427.57	- 6	19.19	13.04	8.40	7.91	7.52	- 5
DK	19.78	12.33	11.50	9.16	8.76	- 4	26.66	15.75	14.63	11.29	10.87	- 4	1.21	0.69	0.77	0.63	0.61	- 4
E	58.00	67.80	81.23	101.51	98.13	- 3	87.00	112.69	131.70	162.42	155.25	- 4	4.20	5.02	4.90	6.95	6.80	- 2
F	235.11	348.47	191.13	162.57	148.89	- 8	344.75	352.18	281.25	236.15	215.59	- 9	15.09	12.54	10.45	10.29	9.62	- 7
GR	18.30	18.23	21.54	19.61			25.72	26.67	32.18	29.28			0.93	1.23	1.70	1.74		
H	23.23	18.99	19.56	27.80	24.59	- 12	31.94	25.46	26.60	39.43	34.80	- 12	1.71	1.63	1.76	2.43	2.12	- 13
I	307.71	271.89	270.31	286.79			238.44	231.41	223.23	227.65	248.19	+ 9	10.21	8.54	7.13	6.62	7.50	+ 13
IRL	6.40	5.68	5.58	6.07	6.49	+ 7	9.81	9.07	8.23	9.91	10.32	+ 4	0.54	0.56	0.41	0.48	0.45	- 7
L	3.13	4.02	4.39	4.66			2.50	2.38	2.08	1.85	1.69	- 9	0.13	0.10	0.08	0.07	0.08	+ 18
N	9.30	7.85	8.98	8.80	8.68	- 1	12.32	10.61	12.30	12.22	12.04	- 1	0.56	0.36	0.40	0.33	0.32	- 3
NL	59.00	49.40	42.35	44.89	40.65	- 9	71.41	58.62	49.89	53.41	48.67	- 9	3.18	2.00	1.44	1.38	1.28	- 7
P	31.08	52.13	53.31	105.14	121.62	+ 16	30.27	43.36	41.44	65.65	73.18	+ 11	1.42	2.26	1.88	2.32	2.58	+ 11
PL	41.81	40.37	36.10	50.53	54.04	+ 7	37.84	52.25	46.98	66.94	73.14	+ 9	3.45	6.00	4.69	7.33	7.90	+ 8
S	17.00	15.23	15.93	16.98	16.00	- 6	23.54	20.09	21.48	23.27	21.80	- 6	1.31	0.85	0.81	0.77	0.75	- 3
SF	11.44	6.79	7.76	10.18	9.35	- 8	17.08	8.99	10.10	13.41	12.15	- 9	1.06	0.55	0.54	0.65	0.63	- 3
TR	19.21	36.96	63.47	115.30	142.64	+ 24	21.65	27.02	56.10	87.67	97.04	+ 11	3.98	3.72	5.56	6.32	6.26	- 1
UK	272.77	257.28	251.42	262.20	241.97	- 8	371.54	335.86	326.16	352.90	321.58	- 9	7.77	6.24	5.34	5.40	4.75	- 12
YU	35.90	47.76	41.64	47.30			53.65	69.97	60.14	69.07			3.68	5.04	4.14	4.96		
ECMT	1 639.36	1 613.70	1 523.70	1 673.80	E 1 665.19	- 1	2 105.44	2 020.82	1 869.78	1 992.59	E 1 927.62	- 3	81.33	68.12	58.03	61.14	E 59.95	- 2

ECMT = 19 countries: A, B, CH, D, DK, E, F, GR, I, IRL, L, N, NL, P, S, SF, TR, UK, YU.

* - 0.5 % < 0 < + 0.5 %
E = Estimate.

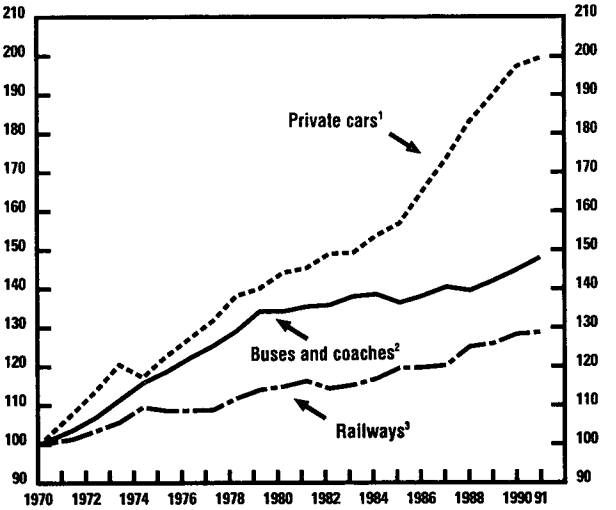
The results as regards road safety in 1991 are therefore clearly positive, thus consolidating the progress made over the longer term on the strength of the measures taken by the authorities since the mid-1970s, because the annual number of road deaths in ECMT Member countries is in fact 30 per cent down on the figure for 1972. Overall, however, the fact remains that the European roads in 1991 were not as safe as they were in 1985, although it is true that trends differ appreciably across countries. It would therefore seem more than ever necessary to promote new measures in this connection and incessantly ensure the effective implementation of measures already adopted.

PASSENGER AND FREIGHT TRAFFIC TRENDS
1970 = 100



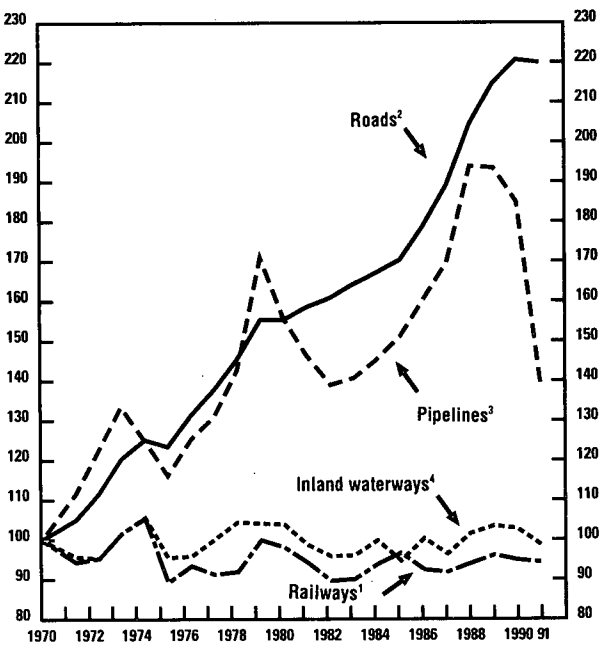
1. 17 countries: A, B, CH, D, DK, E, F, GR, I, N, NL, P, S, SF, TR, UK, YU.
2. 16 countries: A, B, CH, D, DK, E, F, I, L, N, NL, S, SF, TR, UK, YU.

PASSENGER TRAFFIC TRENDS
(passenger-kilometres)
1970 = 100



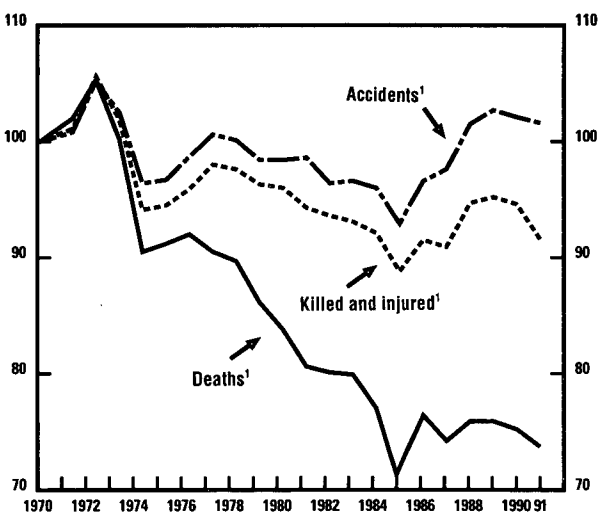
1. 14 countries: A, B, CH, D, DK, E, F, I, N, NL, P, S, SF, UK.
2. 16 countries: A, B, CH, D, DK, E, F, GR, I, N, NL, P, S, SF, UK, YU.
3. 19 countries: A, B, CH, D, DK, E, F, GR, I, IRL, L, N, NL, P, SF, TR, UK, YU.

FREIGHT TRAFFIC TRENDS
(tonne-kilometres)
1970 = 100



1. 19 countries: A, B, CH, D, DK, E, F, GR, I, IRL, L, N, NL, P, S, SF, TR, UK, YU.
2. 16 countries: A, B, CH, D, DK, E, F, I, L, N, NL, S, SF, TR, UK, YU.
3. 12 countries: A, B, CH, D, E, F, I, N, NL, TR, UK, YU.
4. 11 countries: A, B, CH, D, F, I, L, NL, SF, UK, YU.

ROAD SAFETY TRENDS
1970 = 100



1. 19 countries: A, B, CH, D, DK, E, F, GR, I, IRL, L, N, NL, P, S, SF, TR, UK, YU.

TRENDS IN THE TRANSPORT SECTOR IN COUNTRIES WITH ECONOMIES IN TRANSITION

The following section concerns only those three countries with economies in transition which have been members of ECMT since 1991, namely the Czech and Slovak Federal Republic, Hungary and Poland.

Economic reform continued in these three countries during 1991, although macroeconomic stabilization policies came under increasing pressure, pressure arising essentially as a result of the substantial fall in output which increased budget deficits and contributed to rising unemployment. OECD estimates put this fall in output at some 16 per cent in the CSFR, 10 per cent in Hungary and 9 per cent in Poland. It can be largely attributed to the collapse of trade in what was formerly the CMEA area and a significant deterioration in the terms of trade following a sharp upturn in prices for imported energy.

Freight transport

The difficulties associated with the transformation of the economic system in the countries in transition necessarily affected freight transport which, in terms of tonnes-kilometres, was 32 per cent down from 1988, a decline that has tended to accelerate over the past three years and which amounted to nearly 17.2 per cent in 1991 alone, the figures being very similar for all three countries concerned: -18.3 per cent in the CSFR, -17 per cent in Hungary and -16.5 per cent in Poland. All modes without exception recorded a downturn in 1991, with rail (-20.5 per cent), inland waterways (-15.3 per cent) and oil pipeline (-19.3 per cent) traffic suffering even more than road transport (-9.8 per cent).

The railways -- which had for a long time held a privileged position within the centrally-planned transport systems of the countries of Central and Eastern Europe -- experienced sharp falls in 1991 in Hungary (-29 per cent), Poland (-22 per cent) and the CSFR (-16.1 per cent) which were attributable not only to the general economic climate in these countries but also to the structural changes in industry which is now less oriented towards activities that generate heavy bulk traffic (ores, coal). Overall freight traffic of the CSFR, Hungarian and Polish railways in 1991 amounted to only 59.7 per cent of the 1988 figure. Container traffic by rail was particularly affected by the economic difficulties experienced by these countries since the tonnage carried in 1991 was nearly 36 per cent down.

Whereas competing modes experienced a continuous decline in their activities from 1989 onwards, *road freight transport* had previously remained relatively unaffected by the economic crisis in the countries concerned. In 1991 this was no longer the case, however, and road freight in tonnes-kilometres -- which had increased by nearly 17.7 per cent between 1982 and 1990 -- showed falls in Poland (-1.6 per cent), Hungary (-7.8 per cent) and the CSFR (-25.2 per cent).

The number of tonne-kilometres recorded for *inland waterways* in 1991 diminished by 12 per cent in the CSFR, 15.7 per cent in Hungary and 28.7 per cent in Poland, the overall fall in those three countries being nearly 30.8 per cent since 1988.

Oil pipeline traffic also dropped substantially in 1991 in the countries in transition, but more sharply in Poland (-25.2 per cent) and the CSFR (-17.7 per cent) than in Hungary (-6 per cent).

The structural changes in the economies of these countries since the events of 1989, together with the gradual introduction of market economy rules in the transport sector in the place of very direct planning, have clearly affected modal split as can be seen in the following table based on data submitted by the CSFR, Hungary and Poland. While road transport has evidently gained the most in this respect, the table also shows how modal split in these countries differs from that in the other ECMT Member countries insofar as the railways have the largest share.

Percentage trends in market share of the various modes in countries with economies in transition
Freight transport in tonne-kilometres

	1970	1975	1980	1985	1990	1991
Rail	82.1	77.5	72.5	72.7	65.0	62.1
Roads	14.9	20.3	24.9	24.6	32.0	34.8
Inland waterways	3.0	2.2	2.6	2.7	3.0	3.1
Total	100	100	100	100	100	100

Passenger transport

As the CSFR and Poland have provided no statistics on private car traffic, it is impossible to give a complete picture of the passenger transport situation for all of the countries in question. However, passenger transport by *rail* in the three countries diminished by over 14.6 per cent in 1991, which meant that it was 20.8 per cent down from the 1989 level. While the number of passenger-kilometres recorded for rail in 1991 showed little change from the previous year in the CSFR (-0.4 per cent) it did in fact fall sharply in Poland (-20.4 per cent) and Hungary (-13.5 per cent) owing to a reduction in personal mobility as a result of diminishing incomes and greater competition from private cars.

Bus and coach performances in passenger-kilometres in 1991 were down by over 5.9 per cent from the previous year in all three countries, with Poland (-9.9 per cent) and Hungary (-7.7 per cent) suffering to a greater extent than the CSFR (-0.7 per cent).

Road safety

After three years of spectacular deterioration, the road safety situation in the countries with economies in transition stabilized somewhat in 1991 when the number of accidents diminished (-0.8 per cent) and the number of casualties (+0.2 per cent) and fatalities (+2.0 per cent) increased slightly, although these overall results do conceal differences among the individual countries. Whereas the

situation unquestionably improved in the CSFR and Hungary in 1991 to put an end to several years of growing insecurity on the roads, it did in fact continue to deteriorate in Poland.

The fact remains, however, that over a longer period there has been a particularly disturbing trend in these countries, primarily owing to the expanding rate of car ownership. Since 1987 the number of accidents has increased by 33.8 per cent but, what is more important, these accidents have become increasingly severe because the number of road casualties and fatalities have increased by 39.7 per cent and 58.4 per cent respectively over the same period. In 1991, the figure of 12 000 killed was exceeded for the first time on the roads of the three countries taken together.

Notes

1. Austria (A), Belgium (B), the Czech and Slovak Federal Republic (CS), Denmark (DK), Finland (SF), France (F), Germany (D), Greece (GR), Hungary (H), Ireland (IRL), Italy (I), Luxembourg (L), the Netherlands (NL), Norway (N), Poland (PL), Portugal (P), Spain (E), Sweden (S), Switzerland (CH), Turkey (TR), the United Kingdom (UK), Yugoslavia (YU).

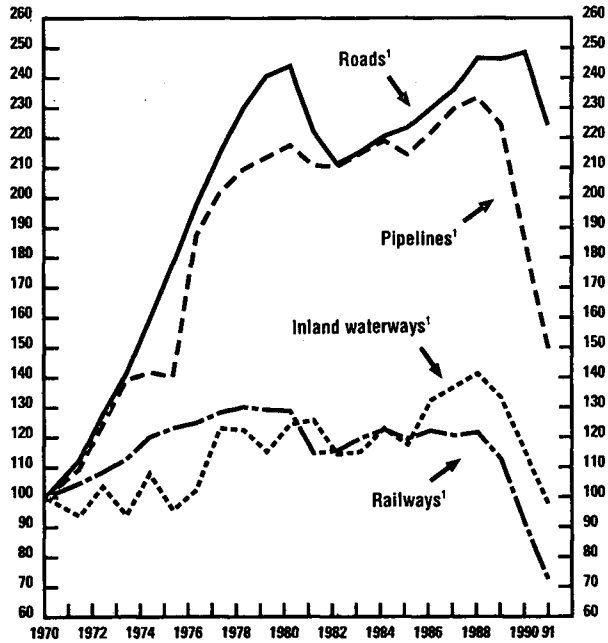
2. B, CH, D, DK, E, F, I, L, N, NL, S, SF, TR, UK.

3. B, D, E, I, N, P, S, SF, UK.

FREIGHT TRAFFIC TRENDS IN COUNTRIES WITH ECONOMIES IN TRANSITION

(tonne-kilometres)

1970 = 100

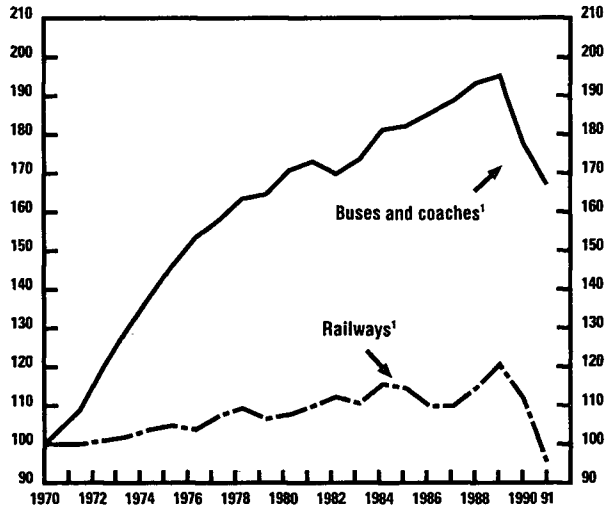


1. 3 countries: CS, H, PL.

PASSENGER TRAFFIC TRENDS IN COUNTRIES WITH ECONOMIES IN TRANSITION

(passenger-kilometres)

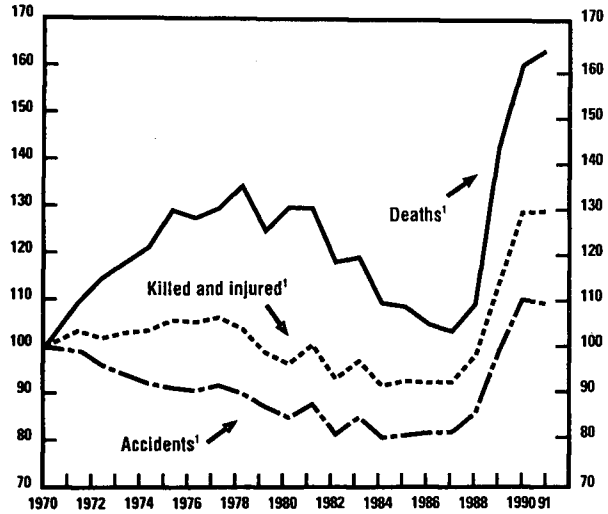
1970 = 100



1. 3 countries: CS, H, PL.

ROAD SAFETY TRENDS IN COUNTRIES WITH ECONOMIES IN TRANSITION

1970 = 100



1. 3 countries: CS, H, PL.

Part Three

RESOLUTIONS OF THE COUNCIL OF MINISTERS OF TRANSPORT AND REPORTS APPROVED IN 1992

RESOLUTION No. 92/1 ON THE ECMT MULTILATERAL QUOTA OF LICENCES FOR THE INTERNATIONAL TRANSPORT OF GOODS BY ROAD FOR HIRE OR REWARD

[CEMT/CM(92)8/Final]

At the Committee's Deputies' meeting in October 1991 the Delegation for Luxembourg drew attention to the fact that the provisions set out in Annex II of the draft Resolution on the adjustment of the ECMT multilateral quota needed to be updated in some respects in the light of the problems experienced in practice and of changes in the system implemented within the European Communities. Furthermore, during the November Session of the Council of Ministers, a number of delegations pointed out that it would be advisable to provide for the computer processing of ECMT licences.

At the same Session a decision was taken to introduce the standards applicable to the "green lorry" with respect to air pollution and noise (Annex A). This led to the introduction of special provisions for the use of licences on Austrian territory whereby each Member country could choose between using 16 "conventional" licences on that territory or 27 if the licences were allocated to "green lorries". In addition, the Austrian Delegation stipulated during the debate that "green lorries" travelling on its territory should be provided with a control document which would have to be carried on board together with the ECMT licence issued for these lorries.

Accordingly, the system has changed over the past six months in two different respects: first, new provisions for its implementation have been drawn up and, secondly, a certificate of conformity for "green lorries" has been drawn up together with conditions governing its use.

As regards the certificate of conformity, the Secretariat was first given a remit by the Committee of Deputies and drew up a form with the approval of the Austrian Delegation which is based on an existing document that has been used satisfactorily for a number of years as a certificate for low-noise lorries at Austrian frontiers. Countries that have opted for "green lorries" have received copies of this form (Annex B) together with a letter stating that they may only be filled in by:

- the vehicle manufacturer, or
- the authorised representative of the manufacturer in the country of registration, or
- the registration service of the country of registration, or
- technical services authorised by the ministry concerned in the country of registration, or
- a technical specialist who satisfies the requirements laid down in paragraph 125 of the law now in force in Austria concerning motor vehicle traffic, or
- a civil engineer authorised by the government.

At the request of the Austrian authorities, as from 16 February 1992, "green lorries" crossing their frontiers were to be required to carry these control certificates.

Furthermore, the ad hoc Group on the multilateral quota met in February 1992 to discuss the provisions for the implementation of the system and drew up a new version. Some points were however left open during the Group's discussions and were submitted for the opinion of the Committee of Deputies, namely:

-- whether vehicles loaded or unloaded in countries that are not participating in the system (third countries) should be allowed entry under an ECMT licence;

-- whether there is any point in requiring that a logbook accompany an ECMT licence since the logbook no longer exists in the European Communities' context.

The ad hoc Group held another meeting in March 1992 to resolve in particular the difficulties experienced with regard to the conditions relating to the introduction of the certificate to be carried on board together with multilateral licences issued for "green lorries" travelling in Austria. The form of the certificate was approved in principle at the meeting. The original form was confirmed and it was decided that the Secretariat should make available to countries, on application, as many certificates as they considered would be needed for their existing fleet of "green lorries". At the request of the Austrian Delegation the Secretariat also agreed to number these certificates and in due course send the Austrian authorities a list showing the numbers allocated to each country. However, one question remained to be resolved, namely the date on which the lorries would have to start carrying these certificates. Postponed initially until 16 March 1992 because the various Member countries had not had enough time to meet the requirements of the Austrian authorities, the Group asked these authorities to postpone the entry into force once again, if possible until 1 January 1993 or, failing that, 1 July 1992.

At the Committee of Deputies' session in April 1992, the Austrian Delegation announced that the date of entry into force for the certificate had been set at 30 May 1992. All the other delegations concerned by the system protested against this. Pursuing its work in the absence of the Austrian Delegation, the Committee insisted that the control system should not enter into force before 1 July 1992, primarily because the Council would have held its Athens Session by that time and would therefore have been able to endorse the proposed arrangements.

Likewise at the Committee of Deputies' session, the German Delegation announced that it was reserving its position on the form adopted for the certificate of conformity for "green lorries" since it preferred a simpler document issued by the manufacturers of the lorries themselves. In view of the large number of certificates already issued, it was decided that this matter should be settled on a bilateral basis in contacts between Austrian and German specialists and that every effort should be made to find a solution before the Council's Athens Session.

However, at its April session the Committee of Deputies also had on its agenda the new provisions for the implementation of the system (Annex C) and, as regards the two issues it had to settle, there was clearly no unanimous response. Accordingly, it was decided that the benefits of the system should not be extended to "third countries". As regards discontinuing the use of logbooks, most delegations thought this to be somewhat premature as they are still used for route controls and statistical purposes.

The Austrian Delegation also requested a number of amendments to Article 4.4 and Article 6.3 of the provisions to the effect that the certificate should be carried on board the vehicle together with

the licences issued for "green lorries". The Council decided to meet the Austrian Delegation's request provided that an addition to Article 4 reproduced in Annex C of the document be added, as far as penalties when standards are exceeded are concerned.

The Council held in Athens on 11 and 12 June 1992 agreed that the reference to Austrian legislation in the certificate of conformity with respect to the measurement of noise levels should be supplemented as soon as possible by international norms when these enter into force in the European Communities. These norms will of course be at least equivalent to those given at present in the control document, i.e. 78 and 80 dB respectively. The Council was informed that, as matters now stand, the Community norms are to be established in 1995 at the latest.

It should also be noted that the Austrian Delegation said during the session that specific controls of the technical specifications of "green" lorries will not be an additional obstacle to the movement of these vehicles but will be carried out as spot checks in the context of routine road controls.

The "green" lorry system will start to operate normally, more precisely as from 1 July 1992 when the Austrian authorities will definitely require the vehicles concerned to carry a control certificate.

The Council also instructed the Committee of Deputies to consider the scope for a significant increase in the multilateral quota system and the conditions for the gradual extension of the "green" lorry concept and to submit specific proposals to it at its next session.

Annex A

RESOLUTION NO. 91/2 ON THE SITUATION WITH RESPECT TO THE ECMT MULTILATERAL QUOTA FOR INTERNATIONAL TRANSPORT OF GOODS BY ROAD AS AT 1ST JANUARY 1992

The Council of Ministers of Transport, meeting in Paris on 21st November 1991,

REFERRING to its decision at its 73rd Session on 22nd May 1991 in Antalya concerning the principle of a 70 per cent increase in the ECMT's multilateral quota with effect from 1st January 1992;

BEARING IN MIND the reservations expressed by certain Member countries and the special arrangements adopted for the use of licences on Austrian territory whereby each Member country may choose between:

-- using 16 licences as in the past if these licences are allocated to vehicles which have no particular specifications with respect to environmental disamenities;

-- using 27 licences if these licences are allocated to so-called "green" lorries whose technical specifications have been established at this stage in accordance with the following standards:

a) air pollution:	CO:	4.9 g/kWh
	HC:	1.23 g/kWh
	NOx:	9.0 g/kWh
	Part.:	0.4 g/kWh[1]
b) noise:	80 dB (A) for vehicles with power over 150 kW	
	78 dB (A) for vehicles with power up to 150 kW	

WISHING to ensure that the new ECMT Member countries -- the Czech and Slovak Federal Republic, Hungary and Poland -- are fully integrated in all forms of international co-operation within the Conference and, accordingly, that they participate immediately in the multilateral quota system;

RECALLING that participation in this system is subject to the fulfilment of a number of prior conditions as laid down in the relevant ECMT Resolutions;

CONSIDERING it an appropriate time to update the text setting out the terms on which a multilateral quota for the international transport of goods by road is to be established, as given in Resolution No. 26 of 1973, as amended on a number of occasions and, more particularly, by subsequent Resolutions Nos. 29, 31, 34, 42, 46 and 55;

DECIDES to allocate, with effect from 1st January 1992, part of the multilateral quota to three new Member countries of the Conference, this part being established during an initial phase at 94 licences for the Czech and Slovak Federal Republic, 94 licences for Hungary and 102 licences for Poland in the context of an overall quota of 2 278 licences, which are allocated among Member countries in accordance with the table given in Annex I, it being understood that the above allocations may be changed within the framework of subsequent adjustments to the system;

ADOPTS, in addition, the provisions for the implementation of the ECMT multilateral quota for the international transport of goods by road, as set out in Annex II together with its appendices which are therefore an integral part of this Resolution;

INSTRUCTS the Committee of Deputies to ensure that the system operates efficiently and to consider the scope for subsequent adjustments in due course.

Note

1. In the case of engines of 85 kW or less, a coefficient of 1.7 is applied to the limit value for particles emissions.

Annex I

ALLOCATION OF LICENCES AMONG MEMBER COUNTRIES

MEMBER COUNTRY		Situation 1990	1992	of which valid in Austria		Number of valid licences in GR, I
				convent. lorry	green lorry	
Germany	D	134	228		27	134
Austria[1]	A	16	27			16
Belgium	B	67	114		27	67
Denmark	DK	55	94		27	55
Spain	E	58	99	16		58
Finland	SF	58	99		27	58
France	F	113	192	16		113
Greece	GR	58	58	16		58
Ireland	IRL	55	94	16		55
Italy	I	67	67	16		67
Luxembourg	L	47	80		27	47
Norway	N	58	99		27	58
Netherlands	NL	92	156		27	92
Portugal	P	55	94	16		55
United Kingdom	GB	58	99	16		58
Sweden	S	60	102		27	60
Switzerland	CH	53	90		27	53
Turkey	TR	55	94	16		55
Yugoslavia	YU	60	102		27	60
SUB-TOTAL		1 219	1 949	-	-	1 219
Hungary	H		94	16		55
Poland	PL		102		27	60
Czechoslovakia	CS		94		27	55
TOTAL			2 278	_	_	1 389

1. A maximum of 16 Austrian licences are valid on the territory of Spain, France, Greece, Ireland, Italy, Portugal, United Kingdom, Turkey and Hungary.

Annex/Annexe B. **"Nachweis der green lorry"**

Nummer .....

Lärm - und schadstoffarmes Kraftfahrzeug (green lorry)
Nachweis der Erfüllung der technischen Voraussetzungen
gem. CEMT-Resolution n° 91/2 [CEMT/CM(91)26 FINAL]

Die/Der: .....

als Hersteller betstätigt, daß: .....

sein Bevollmächtigter im Sinne des § 8b Abs. 2 KDV 1967 ist.

Firmenmäßige Fertigung: .....

.....
Datum Unterschrift

Die/Der .....
als Hersteller/als im Zulassungsstaat Bevollmächtigter Hersteller des nachstehend beschriebenen Fahrzeuges bestätigt hiemit, daß dieses Fahrzeug am ..... mit einem Fahrzeug übereinstimmt, welches am ..... den Bestimmungen der CEMT-Resolution n° 91/2 [CEMT/CM(91)26/FINAL] entsprochen hat, sowie die Richtigkeit der umseitig eingetragenen Angaben.

firmenmäßige Unterschrift des Herstellers/Bevollmächtigten im Zulassungsstaat:

.....
Ort Datum Unterschrift

Fahrzeugtype:
Fahrgestellnummer:
Motortype:
Motornummer:

Messung nach[1]: ISO; ECE; DIN; ÖNORM	
Größte Motorleistung (kW):	bei Motordrehzahl (1/mn):

Messung nach: Anlage 1g KDV 1967[3]		
Höchstwerte dB(A)[2]	Fahrgeräusch	gemessene Werte dB(A)
78 80	<=150 kW >150 kW	
am:	in:	
durch:		
Annäherungsgeschwindigkeit (km/h):		im Getriebegang:
Motorbremsgeräusch dB(A):		
Rundumgeräusch dB(A)	im Meßpunkt 2:	
	im Meßpunkt 6:	
Druckluftgeräusch dB(A):		

Messung nach[1]: ECE-R.51; 84/424 EWG; Anlage 1d KDV 1967	
Nahfeldpegel dB(A):	bei Motordrehzahl (1/mn):

Messung nach[1]: ECE-R.49; Anlage 1/Kap. VI KDV 1967		
Höchstwerte (g/kWh)[2]	Schadstoffe	gemessene Werte (g/kWh)
4.9	CO	
1.23	HC	
9.0	NOx	
Leistung <= 85 kW: 0.7	Partikel	
Leistung > 85 kW: 0.4	Partikel	

1. Nicht Zutreffendes streichen.
2. Gemäß CEMT-Resolution n° 91/2 [CEMT/CM(91)26/FINAL].
3. KDV = Kraftfahrgesetz-Durchführungsverordnung (Österreich).

Annex B. **Certificate for "green lorries"**

No. .....

Vehicle generating little noise or pollution (green lorry)
Certificate of compliance with the technical provisions
of ECMT Resolution No. 91/2 [CEMT/CM(91)26/FINAL]

The .....

as manufacturer, confirms that .....

is his authorised representative for the purposes of section 8b(2) of the KDV

on behalf of the firm: .....

.....
Date Signature

The .....
as manufacturer/as authorised representative in the State of registration,
of the vehicle described below, hereby confirms that the said vehicle
is on ..... identical to a vehicle
which on ..... was in compliance with the provisions
of ECMT Resolution No. 91/2 [CEMT/CM(91)26/FINAL] and
confirms that the particulars entered overleaf are correct.

Company signature of the manufacturer/authorised representative in the State of Registration:

.....
Place Date Signature

Vehicle type:
Chassis number:
Engine type:
Engine number:

Measured according to[1]: ISO; ECE; DIN; ÖNORM	
Maximum engine power (kW):	at engine speed (rpm):

Measured according to: Annex 1g KDV 1967[3]		
Max. values dB(A)[2]	Running noise	Measured values dB(A)
78 80	<=150 kW >150 kW	
on: in:		
by:		
Approach speed (km/h):		in gear:
Engine braking noise dB(A):		
Ambient noise dB(A)	at measure point 2:	
	at measure point 6:	
Compressed air noise dB(A):		

Measured according to[1]: ECE-R.51; 84/424 EWG; Anlage 1d KDV 1967	
Proximity noise level dB(A):	at engine speed (rpm):

Measured according to[1]: ECE-R.49; Annex 1/Chap. VI KDV 1967		
Max. values (g/kWh)[2]	Pollutant	measured value (g/kWh)
4.9 1.23 9.0 Capacity <= 85 kW: 0.7 Capacity > 85 kW: 0.4	CO HC NOx particle particle	

1. Delete.
2. In accordance with ECMT Resolution No. 91/2 [CEMT/CM(91)26/FINAL].
3. KDV = HGV Act implementing regulations (Austria).

Annex C

PROVISIONS FOR THE IMPLEMENTATION OF THE ECMT MULTILATERAL QUOTA OF LICENCES FOR THE INTERNATIONAL TRANSPORT OF GOODS BY ROAD FOR HIRE OR REWARD

Article 1

These provisions set out the requirements and the principles whereby, within the context of a multilateral quota licence system, road hauliers established in Member countries may be engaged in the carriage of goods for hire or reward, between those countries or in transit across.

The rights and obligations arising from these provisions are in addition to and not in substitution for any rights or obligations arising under bilateral or multilateral agreements concerning international transport of goods by road to which Member countries are Parties.

Nor shall they affect the provisions for implementing Resolution No.16, approved by the Council of Ministers on 26th November 1965, concerning international transport by road and the liberalization of certain categories of such transport, and the later Resolutions amending it.

Article 2

The multilateral quota comprises, as at 1st January 1992, 2 278 licences. This figure could be modified within the later adjustments of the quota.

ECMT licences, a model of which is given in appendix, are distributed to Member countries by the Secretariat of the ECMT.

Article 3

ECMT licences are issued by the competent authorities of each Member country, or the body designated by it, to operators who are established in, and whose vehicles are registered in that country, hereinafter called the country of establishment.

The ECMT Member countries recognise the validity of the licences issued by another Member country for the purpose of carrying out the international transport operations covered by Article 4, subject to any restriction indicated on the licence.

Article 4

ECMT licences shall authorize their holders to carry out, for hire or reward, in a single vehicle or a combination of vehicles, any international road haulage operations for hire or reward having their loading and unloading points in the territories of different Member countries or in transit across those

countries and to operate unladen vehicles on the territories of countries where a licence is required for this purpose.

An ECMT licence shall not authorize the carriage of goods loaded in the territory of a Member country for delivery elsewhere in the territory of that same country.

ECMT licences shall be made out in the name of the haulier and shall not be transferable.

A licence may be used for only one vehicle at a time. The term "vehicle" shall be understood to mean a single vehicle or a coupled combination of vehicles (articulated vehicle or road train), even if the trailer or semi-trailer: (a) is not registered or put into circulation under the name of the licence holder or under the same name as the tractor, (b) is registered or put into circulation in a Member country other than the country of establishment, according to the terms defined in Resolution n° 47 adopted by the Council of Ministers on 22nd May 1986.

The licence must be kept on board the tractor and be produced for inspection by the competent control officials on demand.

ECMT licences for "green lorries" can only be used by vehicles which comply with the technical specifications set out in the Resolution 91/2 and are valid on Austrian territory only if accompanied by a fully completed certificate indicating compliance with these technical standards.

These technical specifications are considered in any case not to be satisfied when a spot check indicates 5 dB more than the values noted on the certificate. In case of infringement, the penalty applied will, in principle, be that foreseen in Article 6, point 2, and in case of proved falsification, the penalty will be applied in the country of registration of the vehicle according to the provisions in Article 6, point 3.

ECMT licences shall be valid for the calendar year. Upon request of Member countries, the licences may be converted into short-term[1] multilateral licences valid for one month in the ratio:

- one annual multilateral licence to 12 short-term multilateral licences valid for one month;

- the maximum number of annual licences convertible into short-term licences shall be 20 per cent of the quota allocated to each Member country.

However, in such cases as insufficient use or use only for bilateral transport with one Member country only ECMT licences may be withdrawn by the competent authority of the home country. Licences that are withdrawn or surrendered may be reissued to other carriers for the remaining period of validity.

ECMT licences may be issued only to hauliers who are licensed or otherwise entitled under the legislation of the country of establishment to exercise the profession of international carrier of goods by road for hire or reward.

The spare licences may be used by Member countries. In cases where licences are lost or stolen while in use, the ECMT Secretariat must be notified as soon as possible of the replacement and will then inform Member countries.

Article 5

The holder of an ECMT licence shall keep a logbook as shown in Appendix II. The logbook shall be made out in the name of the haulier and shall not be transferable. It shall be kept in the vehicle together with the corresponding ECMT licence and shall be produced for inspection by the competent control officials on demand.

The record of transport operations performed shall be drawn up to show in chronological order the stages for each journey under load between the point of loading and the point of unloading and also for each unladen trip.

The completed forms of the record of transport operations performed shall be sent to the competent authority or body of the country of establishment within two weeks after the end of each month. The information thus obtained may be used only for statistics on the utilization of licences. It shall not be used for taxation purposes nor shall it be communicated to third parties.

The competent authorities or bodies of each Member country shall provide the Secretariat with the following information by the 15th September and 15th March of each year in respect of periods 1st January to 30th June and 1st July to 31st December respectively:

-- total tonnes-km carried under the quota;

-- average tonnes-km carried per licence in both cases.

Article 6

The Member countries shall give each other mutual support in applying these provisions and in supervising their observance.

Should the competent authorities of a Member country become aware that the holder of an ECMT licence issued in another Member country has infringed these provisions, the Member country in whose territory the infringement was discovered may notify the authorities of the Member country which issued the ECMT licence. The competent authorities shall provide each other with all available information in regard to punishment of the offence.

In case of use of an ECMT licence forged or used by a haulier other than the one to whom it was delivered or in case of use of a forged certificate, the licence is immediately withdrawn and transmitted to the competent authority in the country of the haulier's registration. In case of an outdated ECMT licence, it may also be withdrawn and in such a case it is also transmitted to the same authority.

Article 7

These provisions shall be without prejudice to the provisions of the domestic legislation of the Member countries.

Article 8

Appendices I and II constitute an integral part of these provisions.

Note

1. The Austrian Delegation introduced a general reservation on the principle of establishing short-term licences.

Appendix I (a)

(green paper - format DIN A4)

(first page of ECMT licence)

(text in English and in French)

CONFÉRENCE EUROPÉENNE DES MINISTRES DES TRANSPORTS - SECRÉTARIAT	(Timbre sec de contrôle du Secrétariat)	CODE DU PAYS QUI DÉLIVRE L'AUTORISATION :	Désignation de l'autorité ou de l'organisme compétent
EUROPEAN CONFERENCE OF MINISTERS OF TRANSPORT - SECRETARIAT	(Stamp of the Secretariat)	CODE OF COUNTRY ISSUING THE LICENCE :	Designation of competent organisation or authority

AUTORISATION CEMT/ECMT LICENCE N° ...

relative au transport de marchandises effectué à titre professionnel par voie routière entre les pays membres[1] de la Conférence Européenne des Ministres des Transports.
for road haulage between the Member countries of the European Conference of Ministers of Tansport[1].

.....[2] est autorisé/this licence entitles :

-- à transporter à titre professionnel des marchandises entre des points de chargement et de déchargement situés dans des pays membres différents de la Conférence Européenne des Ministres des Transports, au moyen d'un véhicule isolé ou d'un ensemble de véhicules couplés ;
-- to carry goods by road for hire or reward between loading and unloading points situated in two different Member countries of the European Conference of Ministers of Transport, in a single vehicle or a combination of vehicles;
-- ainsi qu'à faire circuler ce ou ces véhicules à vide sur tous les territoires des pays membres.
-- and to operate this or these vehicle(s) unladen throughout the territory of the Member countries hereinafter called participating Member countries;

La présente autorisation est valable/This licence is valid
du[3]/from[3] ..... au/to .....

Fait à/Issued at ..... le/on the .....[4]

1 Allemagne (D), Autriche (A), Belgique (B), Danemark (DK), Espagne (E), Finlande (SF), France (F), Grèce (GR), Hongrie (H), Irlande (IRL), Italie (I), Luxembourg (L), Norvège (N), Pays-Bas (NL), Pologne (PL), Portugal (P), Royaume-Uni (UK), Suède (S), Suisse (CH), Tchécoslovaquie (CS), Turquie (TR), Yougoslavie (YU).

1 Germany (D), Austria (A), Belgium (B), Denmark (DK), Spain (E), Finland (SF), France (F), Greece (GR), Hungary (H), Ireland (IRL), Italy (I), Luxembourg (L), Norway (N), Netherlands (NL), Poland (PL), Portugal (P), United Kingdom (UK), Sweden (S), Switzerland (CH), Czechoslovakia (CS), Turkey (TR), Yugoslavia (YU).

2 Nom ou raison sociale et adresse complète du transporteur.

2 Name or business name and full address of haulier.

3 En chiffres arabes /Arabic figures.

4 Signature et cachet de l'organisme qui délivre l'autorisation.

4 Signature and stamp of the organisation or authority issuing the licence.

Appendix I (b)

(second page of ECMT licence)

(text in English and in French)

DISPOSITIONS GÉNÉRALES / GENERAL PROVISIONS

La présente autorisation couvre le transport de marchandises effectué à titre professionnel par voie routière entre les points de chargement et de déchargement situés dans deux pays membres différents de la Conférence Européenne des Ministres des Transports tels qu'ils figurent à la liste en page 1 de cette autorisation.

This licence covers the carriage of goods by road, for hire or reward, between loading and unloading points situated in two different Member countries of the European Conference of Ministers of Transport as listed on page 1 of this licence.

Elle ne s'applique pas au transport entre un pays membre et un pays tiers.
It is not valid for haulage between a Member country and a non-member country.

L'autorisation est personnelle et ne peut être transférée.
The licence shall be issued in the name of a particular carrier and is not transferable by him.

Elle peut être retirée par l'autorité compétente du pays membre qui l'a délivrée en cas d'utilisation insuffisante ou limitée à des transports bilatéraux avec un seul pays membre.

It may be withdrawn by the competent authority of the Member country which issued it, if it is used insufficiently or only for bilateral transport with one Member country only.

Elle ne doit être utilisée à chaque fois que pour un véhicule isolé ou un ensemble de véhicules couplés.
The licence cannot be used for more than a single vehicle or combination of vehicles at a time.

Elle doit être conservée à bord du véhicule et jointe au carnet de route où sont consignés les transports internationaux effectués dans le cadre de ladite autorisation.

It must be kept in the vehicle together with the logbook recording the international hauls performed in accordance with it.

L'autorisation et le carnet de route doivent être présentés sur demande aux agents de contrôle habilités.
The licence and logbook must be produced for inspection by the competent control officials on demand.

Le titulaire de l'autorisation est tenu d'observer, sur le territoire national de chaque pays membre, les règles juridiques et administratives en vigueur, en particulier celles qui concernent les transports et la circulation routière.

When on the territory of a Member country, licence holders must observe the statutory and administrative regulations in force in that country, and in particular those concerning road transport and road traffic.

La présente autorisation doit être retournée dans les deux semaines suivant son expiration à l'autorité ou organisme compétent qui l'a délivrée.

This licence must be returned to the issuing organisation or authority within the two weeks which follow the expiry of its validity.

Appendix I (c and d)

(Third and fourth pages of the ECMT licence)

(Particulars referring to the first page of the ECMT licence here given in the official languages of Member countries other than English and French)

The document signed and sealed on page 1 by the competent authority authorizes the haulier named therein to carry goods by road, during the period stated, between loading and unloading points situated in two different Member countries of the European Conference of Ministers of Transport, in a single vehicle or a combination of vehicles, and to operate this or these unladen vehicle(s) on the territories of the Member countries.

Appendix II

1st Page

..... Logbook No. .....
(Country)

L O G B O O K

for

international transport of goods

under ECMT Licence No. .....

Carrier .....
(Name)

.....

.....
(Home or business address)

Stamp

Issued at .....
(Place and date of issue)

IMPORTANT NOTICE

1. This logbook and the corresponding ECMT licence must be kept in the vehicle.

2. The logbook must be filled in before starting off for any journey carried out under load between each loading and unloading point and for every unladen run.

3. If the load is taken on at a collecting point, only the journey with the complete load should be shown and no account taken of collection and distribution runs.

4. The tonne-km figures are obtained by multiplying the figures in column 5 by those in column 6. For unladen runs, columns 4, 5 and 7 are left blank.

5. Any corrections must be made in such a way that the original wording or figures remain legible.

6. The completed forms of the logbook must be returned to the competent authority of the Member country which issued it within the fortnight which follows the month to which the reports refer. When a given transport operation overlaps two reporting periods, the period within which logbook entries are to be included is determined by the day of departure of the vehicle.

3rd Page

ECMT Licence No. .....

a) Date of Departure b) Date of arrival	a) Starting point b) Destination	a) Country b) Country	Type of goods	Gross Weight (t) (to one decimal place)	km	t-km
1	2	3	4	5	6	7
a) b)	a) b)	a) b)				
a) b)	a) b)	a) b)				
a) b)	a) b)	a) b)				
a) b)	a) b)	a) b)				
a) b)	a) b)	a) b)				
a) b)	a) b)	a) b)				
a) b)	a) b)	a) b)				
a) b)	a) b)	a) b)				

RESOLUTION No. 92/2 ON NEW CLASSIFICATION OF INLAND WATERWAYS

[CEMT/CM(92)6/FINAL]

The Council of Ministers meeting at Athens, on 11 and 12 June 1992,

TAKING NOTE of the report, [reproduced below]

RECOMMENDS

A) Concerning the technical aspects of infrastructures:

1. Governments should give consideration to the new classification of European inland waterways, as set out in Table 1, with a view to classifying their own country's inland waterways. The maps of their network should be brought into line with this classification. Under their responsibility, a document should be set out considering all the characteristics of any waterway or part of it (waterway outline, fairway location, permissible draught, minimum height under bridges, recommended dimensions for locks and other elevators for ships...) in view of achieving the best and as complete as possible exchange of information between each inland waterway user. With the same objective, the ECE and ECMT's maps of European inland waterways are also to be reviewed. This work will be assigned to a group of experts.

2. In view of the completion of an homogeneous European inland waterway network, governments should also take into consideration this new classification in their modernisation and improvement programs of their network or when renewing the structures.

   Where a regional or Class IV waterway is to be modernised, the parameters to be adopted should be at least Class Va. When modernising or creating a waterway of international importance, the parameters to be used should be at least Class Vb with a minimum draught of 2.80 metres and a minimum height under bridges of 7.00 metres where necessary for container transport. For inland waterways where a bridge clearance of 700 cm is not considered as economically reasonable, the possibility of using longer convoys (Class Vb) should be taken into account. The lengths of locks or other structures through which vessels pass must be established with reference to the maximum dimensions of pushed units.

3. Navigational techniques can still be considerably improved. Progress can be made as regards both the construction and equipment of vessels handling traditional bulk traffic and research on new types of vessel better able to handle other traffic that has developed over the past few decades.

   Governments must ensure the promotion of initiatives to modernise transport equipment and the equipment used for loading, unloading and transhipment. Although coasters and fluvio-

maritime vessels are not referred to in this report, they also must be taken into account, at least on waterways that have a gauge compatible with their dimensions.

4. Following the adaptation of the networks, their maintenance in good condition and improvements in transport equipment, the authorities must be particularly careful to ensure that inland navigation is ready for smooth integration into the Single Market of 1993, able to cater for available traffic and to adapt to the computerisation of the management, business and navigational techniques that will be developing in the next few years.

B) Regarding inland waterways development policy:

1. Governments should recognise the importance of inland waterways transport and give it all the attention needed to ensure development consistent with all its potential. In this connection, attention should again be drawn to the conclusions of report CM(89)27 of 25 October 1989 concerning, in particular, the role of inland navigation in transport economics at both national and international levels.

2. The forthcoming entry into service of the Rhine-Main-Danube link and the opening of the East European countries to the market economy will have a favourable impact on inland waterways transport. New links will be developed and probably modify existing flows of traffic to some extent. It will be necessary to ensure that the transition is as smooth as possible so that vessels can make use of the whole of the European network with no breaks in the continuity.

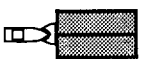
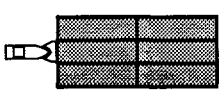
3. Many studies of combined transport have been undertaken, but mainly in connection with rail/road links. However, inland waterways can also be incorporated effectively in such systems. Studies in this connection are moreover now on the agendas of the international bodies concerned. These studies must be supported and pursued with a view to reaching practical solutions.

4. There is considerable capacity available on the European network which can be used with no need for substantial investment. Everywhere competition exists between types of infrastructure, the transfer of some road and rail traffic to the waterways is often suggested as a means of reducing congestion and improving environmental conditions. A campaign to provide information and incentives to industry, shippers and potential users should be undertaken on the initiative of those governments that would find this partial transfer of traffic a response to the problems of congestion and environmental disamenities which are becoming increasingly difficult.

Tableau 1. **Classification CEMT des voies navigables européennes — Juin 1992**
ECMT Classification of European inland waterways — June 1992

Type des voies navigables Types of inland waterways		Classes de voies navigables Classes of navigable waterways	Automoteurs et chalands Motor vessels and barges				
			Type de bateau : caractéristiques générales Type of vessel: general characteristics				
			Dénomination Designation	Longueur Length	Largeur Beam	Tirant d'eau Draught	Tonnage Tonnage
		(1)		m	m	m (2)	T (3)
D'INTÉRÊT RÉGIONAL OF REGIONAL IMPORTANCE	A l'ouest de l'Elbe To West of Elbe	I	Péniche Barge	38.50	5.05	1.80-2.20	250-400
		II	Kast-Campinois Campine-Barge	50-55	6.60	2.50	400-650
		III	Gustav Kœnigs	67-80	8.20	2.50	650-1000
	A l'est de l'Elbe To East of Elbe	I	Grosse Finow	41	4.70	1.40	180
		II	Barka Motorowa 500	57	7.50-9.00	1.60	500-630
		III	(5)	67-70	8.20-9.00	1.60-2.00	470-700
D'INTÉRÊT INTERNATIONALE OF INTERNATIONAL IMPORTANCE		IV	Johann Welker	80-85	9.50	2.50	1000-1500
		V a	Grands Rhénans Large Rhine Vessels	95-110	11.40	2.5-2.80	1500-3000
		VI b					
		VI a					
		VI b	(8)	140	15.00	3.90	
		VI c					
		VII (9)					

Tableau 1. **Classification CEMT des voies navigables européennes — Juin 1992** *(suite)*
ECMT Classification of European inland waterways — June 1992 *(cont'd)*

Convois poussés Pushed convoys					Hauteur minimale sous les ponts Minimum height under bridges	Symboles graphiques sur les cartes Graphical symbols on maps
Type de convoi: caractéristiques générales Type of convoy: general characteristics						
	Longueur Length	Largeur Beam	Tirant d'eau Draught	Tonnage Tonnage		
	m	m	m [2]	T [3]	m [4]	
					4.00	
					4.00-5.00	
					4.00-5.00	
					3.00	
					3.00	
	118-132	8.20-9.00	1.60-2.00	1 000-1 200	4.00	
	85	9.50	2.50-2.80	1 250-1 450	5.25 ou/or 7.00 [6]	
	95-110 [7]	11.40	2.50-4.50	1 600-3 000	5.25 ou/or 7.00 ou/or 9.10 [6]	
	172-185 [7]	11.40	2.50-4.50	3 200-6 000		
	95-110 [7]	22.80	2.50-4.50	3 200-6 000	7.00 ou/or 9.10 [6]	
	185-195 [7]	22.80	2.50-4.50	6 400-12 000	7.00 ou/or 9.10 [6]	
	270-280 [7]	22.80	2.50-4.50	9 600-18 000	9.10 [6]	
	193-200 [7]	33.00-34.20 [7]	2.50-4.50	9 600-18 000		
	195-285 [7]	33.00-34.20 [7]	2.50-4.50	14 500-27 000	9.10	

Notes for table 1

1. The class of a waterway is determined by the horizontal dimensions of the vessels or pushed units, especially by their width.

2. The draught of a inland waterway must be specified with reference to local conditions.

3. Characteristic tonnage for each class according to dimensions and draughts indicated.

4. Takes into account a security clearance of 30 cm between the highest point of the vessel or its load and the height under the bridge.

5. Vessels used in the Oder region and on waterways between the Oder and Elbe.

6. Adapted for container transport:

   -- 5.25 metres for vessels carrying two layers of containers;
   -- 7.00 metres for vessels carrying three layers of containers;
   -- 9.10 metres for vessels carrying four layers of containers;

   50 per cent of the containers may be empty, otherwise ballast must be used.

7. The first figure relates to existing situations and the second to future developments or, in some cases, also existing situations.

8. Takes account of the dimensions of motor vessels proposed for ro-ro transport and shipments of containers; the dimensions given are approximate.

9. Relates to pushed units on the Danube which often consist of more than nine barges.

COVER NOTE ON NEW CLASSIFICATION OF INLAND WATERWAYS

[CEMT/CM(92)6/FINAL]

1. Background

a) 1954 Classification

In 1954 the ECMT recommended that the inland waterways of Western Europe be classified in five classes on the basis of the dimensions (length, beam, draught, headroom) of the five standard types of vessel then in operation:

Class I:	Barge (spits) with an average deadweight capacity of 300 tonnes;
Class II:	Campine barge with an average deadweight capacity of 600 tonnes;
Class III:	Dortmund-Ems-Kanal (DEK) type barge with an average deadweight capacity of 1 000 tonnes;
Class IV:	Rhine-Herne-Kanal (RHK) type barge with an average deadweight capacity of 1 350 tonnes;
Class V:	Large Rhine barges with an average deadweight capacity of 2 000 tonnes.

The dimensions of these classes of vessel were used to establish the standards for the modernisation of inland waterways of international importance. The classification was based exclusively on conventional navigation since the pusher technique was only just coming into use at that time.

b) 1961 Classification

Report [CM(61)14], as approved by Resolution No. 8 of 21 November 1961 concerning the classification of inland waterways and standard dimensions of boats and structures, was based on Resolutions No. 1, 3 and 7 and on the classification recommended in 1954. Resolution No. 3 laid down the standards to be met by a waterway of international importance in order to accommodate a vessel of the 1 350-tonnes R.H.K-type. Resolution No. 7 of 1960 and the relevant report concerned the possibility of introducing certain standards for pusher units in view of the fact that such navigation had begun to develop a few years beforehand.

Account also had to be taken of the prospects for the further development of the pusher navigation and round-the-clock navigation using radar and of the studies undertaken by the industry itself, the United Nations Economic Commission for Europe in Geneva and the Commission of the European Economic Communities in Brussels. The Group of Experts accordingly worked in collaboration with representatives of the International Union for Inland Navigation to give more thorough consideration to the classification of inland waterways and standard dimensions of vessels and structures.

To the five classes of motor vessel adopted previously by ECMT were added a Class VI for units of 3 000 tonnes and over and a further column showing the deadweight of vessels so as to include the results of the ECE's work in Geneva. It also proved to be difficult to standardize pusher units, although it was both possible and desirable to standardize pushed barges. Mention was made of barges of 70 x 9.50 metres, while another standard type of barge with possible dimensions of 75 x 11.40 metres was being studied. The industry had suggested headroom of 4.40 metres for Class IV, which would have meant that many vessels in service on the Rhine would not have been able to use Class IV waterways.

The classification adopted under ECMT Resolution No. 8 of 21 November 1961 was set out in the form of Table 1 together with notes as reproduced below:

Table 1. **Classification of European inland waterways and standard dimensions of boats**

Class of waterway	Conventional navigation						Pusher Navigation		Classes defined by the ECE (Geneva) dead-weight capacity
							Barges[1]		
	General Designation	Characteristic tonnage (tonnes)	Length m	Beam m	Draught m	Head room m	Length m	Beam m	tonnes
1	2	3	4	5	6	7	8	9	10
I	Barge	300	38.50	5.00	2.20	3.55	[5]	[5]	250 to 400
II.	Campine	600	50.00	6.60	2.50	4.20	[5]	[5]	400 to 650
III	Dortmund-Ems-Kanal type . . .	1 000	67.00	8.20	2.50	3.95	[5]	[5]	650 to 1000
IV	Rhein-Herne-Kanal type . . .	1 350	80.00	9.50	2.50	4.40	70.00[2,3]	9.50[2,3]	1000 to 1500
V	Large Rhine barges	2 000	95.00[4]	11.50[4]	2.70[4]	6.70[4]	[5]	[5]	1500 to 3000
VI	Do	3 000 and over	-	-	-	-	[5]	[5]	3000 and over

1. The draught of pushed barges is the same as for standard boats.
2. This type of barge can also be accepted on certain Class III waterways.
3. Another type of barge with dimensions approx. 75 x 11.40 metres is under study.
4. 2 000 tonnes units are not standardized; the dimensions given are approximate.
5. Under study.

The report in question concluded as follows: "As the standardization of boats progresses, it will obviously tend to make the operation of inland waterways more of an industrial and less of an individual undertaking, and thus bring down building costs and perhaps make them easier to finance. It will also help to develop pusher navigation and by modifying the dimensions of structures to be built or improved, lead to higher returns from inland waterways transport, and so promote its development in Europe."

c) Inland waterways developments 1961-1991

In 1962 the group of experts on inland waterways noted the increase in the number of pushed barges and the decision taken by the ECE in Geneva to assign a length of 76.50 metres to barges with a beam of 11.40 metres. The size of the fleet increased year by year and pusher navigation became more and more common, first with barges of 70 x 9.50 metres (Europe I) and subsequently of 76.50 x 11.40 metres (Europe II) which then came into general use with an increase in their maximum draught, which had been limited to 2.80 metres for the first barges built and increased to 3.90 metres (Europe IIa) for those coming later. It can be said that the pusher technique was standardized in Western Europe on the basis of the 76.50 x 11.40 metres barge (Europe II and IIa) in two- four- or six-barge units, the latter having an in-line or in-width formation.

On the Danube, however, the dimensions of the barges are 76.50 x 11 metres (Europe IIb) with a draught limited to 2.50 metres, and they often form units of over six barges (9, 12 or even more on the lower stretches of the Danube). Navigation on the Danube consists almost entirely of the pusher technique, whereas in Western Europe this technique is of importance only on the major axes and is very limited on the rest of the network in many cases owing to the fact that the waterways cannot accommodate it as the dimensions of the channels and structures -- especially the length of locks -- are inadequate.

The modernisation of inland waterways in a number of countries has led to a substantial reduction in the number of Class I, II and III waterways and more of the higher classes, including Class IV as recommended by Resolution No. 3, which has meant that the composition of the various national fleets has changed considerably. The number of motor vessels in deadweight Classes IV and above has continued to increase while that of the smaller vessels has diminished. The European Communities' recent scrapping campaign has mainly concerned these low-tonnage vessels and has accentuated the trend towards an increase in the average deadweight of units in the inland waterways fleet.

It should be noted however that, owing to the trend in the pusher technique, essentially the use of Europe II and IIa barges rather than Europe I, the Class IV waterways have had only a slight increase in pusher traffic since the effective length recommended for locks (85 metres) could not accommodate a single Europe II barge which ranges from 95 to 105 metres in length.

The recently built Class IV to VI motor vessels are as a rule longer than was indicated in the 1961 classification. The same applies to their draughts. Headroom has also been modified, especially since containers began to be shipped on waterways and have called for much greater overhead clearance under bridges to ensure a better economic return (number of levels of containers). Beams have remained much more stable, however, owing to the standardized widths adopted for locks (12 metres or a multiple of 12 metres).

Over the last years container transport on inland waterways has grown considerably. Some major waterways enable the transport of four layers of containers on modern Class V ships. These ships can carry up to 208 twenty feet containers.

The amount of coaster traffic is at present such, that these types of vessels should be taken into account when designing new waterways that are directly or indirectly linked with the sea. Until today the coasters admitted are not larger than inland waterways vessels as far as their horizontal dimensions are concerned. They are however less manoeuvrable than inland waterway vessels and usually have a deeper drought. Overhead clearance under the bridges of the waterways used is often the factor that determines which coasters can be accommodated.

2. New classification of European inland waterways and dimensions of vessels

a) Choice of working method

The foregoing analysis shows that it has now become essential to study the question of a new classification for European inland waterways. The delegations represented on the ad hoc Group on Inland Waterways have unanimously reached that conclusion.

At the twenty-sixth International Congress of the Permanent International Association of Navigation Congresses (PIANC) in Brussels in June 1985, attention was drawn to the need for a new classification of European inland waterways during the technical session held in this connection, a point of view adopted and set out in the conclusions of the Congress which stated that the classification should be updated and that account should be taken of the pusher technique. On 4 February 1987, Permanent Technical Committee No. 1 decided to set up a new working party to initiate a study in this connection. The report of this Working Party No. 9 was published as a supplement to the PIANC Bulletin No. 71 in 1990.

Similarly, at the Economic Commission for Europe in Geneva, the Working Party on Inland Water Transport -- which has since become the Principal Working Party on Inland Water Transport -- instructed the Working Party on Standardization of Rules of the Road and Signs and Signals in Inland Navigation (SC3/WP2, which has become SC3/WP3, after merging with SC3/WP1, under the heading Working Party on Standardization of Technical and Safety Requirements in Inland Navigation) to consider whether it should be advisable to review the classification of European inland waterways.

This group of experts, which began its work in 1986, was advised of the PIANC's imminent intention to take up this study and thought that the two bodies should collaborate. In 1987, the Principal Working Party decided that the group of experts should wait until the PIANC had completed its work before carrying out its own studies. It was not until 1991, therefore, that these studies were in fact resumed with an informal examination of the PIANC's proposal at a meeting in Prague in June and by the actual examination of the issues at the August session during which an outline for a new classification was drawn up on the basis of that of the PIANC, as amended slightly to take account of the situations existing in the Central and East European countries.

National delegations represented on the ECMT ad hoc Group decided therefore to give consideration to both the PIANC draft and that of the ECE in Geneva. They unanimously agreed that there should be a single classification of European inland waterways adopted at governmental level even if, in order to achieve this objective, the classification had to be accompanied by comments relating to marginal differences in the characteristics of motor vessels and barges and in the parameters of inland waterways.

To this end, they worked very closely with the Secretariat of the Commission in Geneva, in order that both organisations progress together, and avoid any duplication of work.

b) New classification of European inland waterways

The revised classification of European inland waterways takes account of all the significant factors reviewed above without losing sight of the fact that navigational techniques are clearly evolving continuously -- for example, the increase in permissible draughts of motor vessels and barges -- and that it is necessary to cater for the new market slots available to inland waterways transport. It also takes account of the inland waterways' situation in Central and Eastern Europe on which there are motor vessels and pushed units of different dimensions. It also seems obvious that a significant change only occurred on waterways where international traffic was very developed, i.e. where modern units can go. They are mainly Class V, VI and VII motorways and, to a lesser extent, Class IV. Class VII is moreover a supplementary one included to take account of the specific situation with respect to navigation on the Danube where the downstream section handles pushed units consisting of a large number of Europe IIb barges. The inland waterways of Class I, II and III still in service throughout Europe have as a general rule kept the same characteristics and are used only for national traffic.

Class IV, described in Resolution No.3 in 1954 as the international class, has lost much of its interest and should therefore only be considered as the minimum class for a European international network. This class of importance in 1954, now in 1992 serves only for the link between the national (regional) and international networks.

The new classification adopted by both ECMT and the UNO in Geneva is given in Table 1 of Resolution No.92/2, and is based essentially on the following principles:

i) In view of what is indicated above concerning Class I, II and III waterways to the West of the Elbe, parameters relating to the width and draught of these waterways were unchanged and remain the same as in the earlier ECMT classification. The same applies as regards minimum heights under bridges which have been established with reference to the headroom of vessels as set out in the 1961 classification plus a safety margin of 30 cm.

ii) Account was taken of the network to the East of the Elbe which has also been divided into Classes I, II and III. The same numbering was adopted as the two networks are geographically separated by the Elbe so there is no possibility of confusion.

iii) The lengths for motor vessels are consistent with the range existing in the various fleets. Variations with respect to pushed units are attributable to either the different lengths of pusher units or the use of longer barges.

iv) The bases for the differences of class are the horizontal dimensions of motor vessels and barges or the composition of pushed units, primarily the main standardised dimension of motor vessels and barges, namely their **beam or width** which usually differs very little from the standard beam of each class, while any variations are usually found for only a small percentage of vessels. It should be noted however that on the network of Eastern Europe some Class IV waterways take vessels or pushed units with an 11.40 metres beam and that the barges used on the Danube (Europe IIb) have an 11 metres beam while those on the Rhine have an 11.40 metres beam.

v) It would have been better to fix a single draught for each class, but this was impossible owing to the differences in draughts permitted on comparable waterways in Western and in Central/Eastern Europe respectively. The tendency in Western Europe is to try to increase the permissible draught, thus prompting shipyards to build vessels of greater depth. However, the

draughts permissible on the networks of Eastern Europe are much shallower, so the lower figures given for draughts in Table 1 of Resolution No.92/2 are those usually authorised on East European inland waterways and the higher figures, those of the West. It is thought that the draught for pushed units may be increased to 4.50 metres in the future.

vi) The minimum heights under bridges were determined by the headroom of vessels carrying containers or of the vessels load, at any rate where waterways of Classes IV to VII are concerned. It is obvious that for the waterways where no container traffic is envisaged, the heights under bridges can be reduced and adapted to traditional navigation. In order to ensure a better economic return, the number of levels of containers loaded must be as high as possible without putting the stability of the vessel at risk. Accordingly, the ideal load for Class IV vessels is three levels, and for vessels of Classes V, VI and VII, four levels. The recommended minimum heights under bridges were calculated by allowing for a security margin of some 0.30 metres between the overhead clearance under bridges and the maximum headroom either of a vessel or of its load when a vessel is carrying containers (50 per cent of which are empty). On waterways whose water level fluctuates, the reference level for determining this clearance must be obtained over a period of 240 days in a year.

vii) Non-traditional traffic has been increasingly substantially in recent years, a trend that will continue for container and ro-ro traffic in particular. For ro-ro, consideration is being given to the construction of longer and wider motor vessels so that the trailers can be stowed cross-wise. It can be estimated that such motor vessels would be $\pm$ 140 metres in length with a beam of $\pm$ 15 metres and a draught of 3.90 metres. They could also carry five rows of containers on four layers. They have been entered in Class VIb.

While the new classification takes the ECMT's 1961 classification for reference, it differs in a number of respects:

a) A distinction is now made between regional and international waterways.

b) In view of the extension of the inland waterways classification to Europe as a whole, it has been decided that regional or national waterways should be broken down into waterways to the West and to the East of the Elbe owing to the major differences in characteristics of vessels used on each of these networks.

c) As the horizontal dimensions of pushed units differ substantially from those of self-propelled vessels, Class V has had to be divided into two parts. Class VI has three parts to allow for the two-barge units in wide formation found on the networks of Central and Eastern Europe.

d) A seventh class has been added to take account of navigation on the Danube where, especially downstream, pushed units consisting of a large number of Europe IIb-type barges are found. In this connection, it should be noted that the width of the locks on the Danube (34 metres) means that three barges of the Europe II and IIa-types cannot be accommodated in wide formation.

RESOLUTION No. 92/3 ON DECENTRALISED ROAD SAFETY POLICIES

[CEMT/CM(92)4/REV]

The Council of Ministers of Transport of ECMT, meeting in Athens on 11 and 12 June 1992,

Having regard to the report on trends in road safety policies,

BEARING IN MIND

all the Resolutions adopted by ECMT in connection with the orientation of road safety policies, more particularly Resolution No. 48 (1986) on ways of influencing human behaviour with a view to improving road safety and Resolution No. 55 (1989) on road safety;

BELIEVING

that the number of road accident casualties in ECMT Member countries is unacceptable;

NOTING

-- that the policies pursued in most of the Member countries since the early 1970s have led to a downtrend in numbers of both road accidents and casualties;

-- that these policies, which had previously focused primarily and individually on regulatory measures, road infrastructure and vehicle safety, had subsequently begun to integrate all these aspects;

-- that the stuctures set up and the degree of central government involvement in shaping and conducting these policies differs from one country to another and that no single model can be recommended as valid for all;

CONSIDERING

-- that it is a prerequisite for an effective policy to mobilise all concerned -- especially those closest to the public as road users -- for the purpose of conducting a diversified and co-ordinated programme of action;

-- that the policies currently adopted in many countries do satisfy this requirement by means geared to the relevant administrative structures and have shown their effectiveness in the light of the results achieved;

RECOMMENDS

the Member countries to pursue and step up their efforts to prevent road accidents, and in particular:

-- to set an attainable but ambitious objective in quantitative or qualitative terms on which the relevant measures can be focused;

-- to take any legislative measures that may still be called for;

-- to make the concern with road safety an issue of national importance and a part of general transport policy;

-- to promote a range of measures to change user behaviour by means of education, training and information but also by means of an effective policy of enforcement and penalties, while at the same time continuing to improve both infrastructure and vehicles, due account being taken of any interaction between these diverse measures;

-- to identify all the various partners from national down to local level, including elected representatives, administrations and the private sector, who may participate in these efforts to prevent road accidents;

-- to enable these bodies to work together, each at its own level and with respect to its own responsibilities and areas of concern, in order to draw up and implement a diversified and co-ordinated action programme;

-- to establish the structures whereby all concerned can be mobilised and experience may be exchanged;

-- to develop instruments for monitoring and assessing these policies.

COVER NOTE ON DEVELOPMENT OF ROAD SAFETY POLICIES

[CEMT/CM(92)4/REV]

Following an international seminar on decentralised road safety policies which was held in Aix-en-Provence in October 1986 in the context of the EEC's Road Safety Year, the Road Safety Committee decided at its 78th Session to put on its agenda the question of the devolution of responsibility for road safety work to the regions.

Since the early 1980s many countries, more particularly those with the greatest propensity to centralise, have been developing road safety policies which have involved all the various levels of administration, including local authorities, the essential aim being to step up efficiency by facilitating the mobilisation of all political and administrative authorities to combat the lack of safety on the roads and to develop forms of action as close as possible to the general public, the actual road users.

The Aix-en-Provence Seminar highlighted both the diversity of the approaches adopted in the various countries -- mainly owing to differences in governmental and administrative structures, and the positive results achieved with decentralisation.

Instead of simply describing the different cases, it would seem useful to examine the way in which road safety policies almost everywhere have been moving from the national to the local level over the past two decades and to consider the instruments that have accordingly been developed along with these policies.

1. Pattern of development of policies over the past two decades

As pointed out in the OECD publication "Integrated road safety programmes"[1], there is an astonishing similarity in the patterns of development of the road safety situation in OECD countries (as in all countries with high levels of car ownership) and, with a certain time-lag, in those countries in which car ownership is developing.

The spectacular increase in the number of motor vehicles after the Second World War was unfortunately accompanied by an equally spectacular and disastrous increase in the number of accidents and, accordingly, in the number of casualties. What had been a sporadic and relatively mild phenomenon, comparable to the accidents involving horse-drawn carriages in earlier decades, became an endemic disease which on its own claims as many lives as some of today's most dreaded diseases, especially among the younger members of our populations, thus cancelling out much of the progress made in the fight against infantile diseases.

Towards the end of the 1960s the scale of the problem was such that the public could no longer accept it, and all the governments of countries with high levels of car ownership then developed comprehensive preventive policies and set up administrative structures whereby road safety issues could be dealt with more effectively.

In the early 1970s national governments introduced legislation with respect to the four factors that seemed to be most decisive in terms of the number and severity of accidents, namely, alcohol, speed, and the wearing of seat-belts and helmets. The measures taken were designed to limit the perverse effects in the case of alcohol and speed and promote the benefits in the case of seat-belts and helmets, thus effectively curbing or even reversing the steadily rising trend in the number of casualties recorded in the preceding years.

The first laws were accordingly laid down to make the wearing of belts in front seats and of helmets compulsory, to penalise drinking and driving (establishment of a legal limit for the blood/alcohol level) and to set speed limits on all networks.

At the same time, research was stepped up with a view to getting a better understanding of accidents and of driver behaviour. Similarly, major programmes were developed for the improvement of road infrastructure, the construction of the motorway network being one of the most spectacular features. Meanwhile, the motor manufacturers were bringing out increasingly reliable and collision-proof vehicles, although these were also capable of increasingly high speeds.

Significant results were achieved immediately and, once these nationwide legislative measures had been taken, all countries recorded a sharp fall in the number of accidents and casualties, while the number of vehicles and volume of traffic on the roads continued to increase rapidly.

This general realisation that the lack of safety on the roads was unacceptable -- which has made this problem one of the most crucial of present-day society -- has also been one of the factors conducive to the downtrend in the accident rate since, convinced of the advisability and soundness of the constraints imposed, many people were well disposed to comply with the new regulations.

In addition, enforcement measures were stepped up, penalties were brought into line and national information campaigns were developed at this time to keep the problems in the public eye and bring them to the attention of those who still needed to be convinced of their gravity.

Since that time, while the road safety policy pursued may be qualified as **national and legislative**, it has been found that if the policy is to be effective it must be **integrated** with other matters of concern in the sphere of road transport such as personal mobility, the smooth flow of traffic and environmental protection -- as clearly demonstrated in the OECD report[2] -- and be **diversified** to include all the fields identified as being able to make a direct or indirect contribution to the improvement of road safety in the short or longer term.

Example of integration

The attempt to improve the fluidity of traffic provides an example of the integration of concern for safety with other aspects of general transport policy.

Consideration has since been given to the construction of new roads and motorways, the improvement of the existing network and specific operational measures developed to cater for the increase in traffic, cope with its irregularities and manage peak periods more efficiently (daily, weekly or seasonal), with a view to increasing the capacity of roads and ensuring the smooth flow of traffic, while at the same time increasing the comfort of users and maintaining, or preferably raising, the standard of safety.

An example of diversification

Road safety improvements are to be found not only in relation to the road itself, since the three main spheres in which action is to be taken to establish an effective policy relate to road, vehicle and driver.

For the sake of simplicity -- and to avoid making a tiresome list which might not be exhaustive in any event -- a few examples will show the very broad range covered by diversification:

-- in the road sector, the construction of new and safer infrastructures and of alternative routes, the equipment of roads with safety devices, the elimination of "black spots", the provision of both vertical and horizontal road signs, signals and markings;

-- as regards vehicles, -- to consider only the car -- greater resistance in collisions, the fitting of safety devices, vehicle maintenance, driving aids;

-- as regards the driver and road user in general, improved driver training, better education and information, a more efficient policy of enforcement and penalties to ensure better compliance with regulations, the development of preventive measures together with more appropriate regulations.

The downtrend in numbers of accidents and casualties, which was then recorded over a number of years, was followed in almost all countries by some levelling-off in the results, so some fresh impetus was then called for. The major legislative measures of the early 1970s had borne fruit. Even though endeavours had to be maintained or even stepped up to ensure better compliance with these regulations, and although the measures taken in the various above-mentioned fields had not as yet taken full effect since their impact could only be felt in the medium to long term, the various actors needed to be re-motivated, the policies renewed and the machinery modified.

Though to varying degrees, everybody seemed to agree at the time that, while infrastructures should continue to be developed and roads and vehicles be improved, attention had to be focused primarily on the behaviour of the driver with a view to changing the behaviour of all road users.

Given these factors, road safety policies in most countries then began to develop along three other lines.

I - First, towards greater **diversification** of measures taken by central government which, while pursuing its programme of improvements to its own road network, -- often with a dual aim of fluidity and safety and the establishment of standards for more reliable vehicles in collaboration with manufacturers -- and continuing to implement legislation on road traffic and behaviour, developed the action it was taking with respect to education, training, information and communications, as well as carrying out its responsibilities as regards the enforcement of regulations and the imposition of penalties.

The essential target of the various measures was the road user, the aim being to change his behaviour which all agreed played an important and usually major role in accidents.

In this phase, however, as pointed out in the ECMT "Report on ways of influencing human behaviour with a view to improving road safety", all these measures were essentially carried out, or in some cases called for, by the public authorities at national level, with little being asked from the other partners who did not have an integral role in this policy.

It must not be concluded that there were no other partners or that the partners took no action. However, such action was very often only sporadic, focused on very limited targets or subjects on an individual basis with no formal consultation among the partners.

This problem has to be qualified, however, since the situation described is characteristic of highly centralised countries, such as France at that time, whereas the participation of regional and local authorities and associations was already considerably advanced in varying degrees according to the country in the light of their individual responsibilities. For example, the responsibility for enforcement policy of the German länder and Swiss cantons or responsibility for education. In decentralised countries, while the main lines of approach were laid down by central government, often in the form of regulations, regional or local authorities were responsible for implementing the measures and took considerable initiative in defining the action to be taken.

II - This diversification of measures was accompanied by an **increase in the number of actors** and greater **decentralisation** of the action taken.

The second fundamental stage in the evolution of road safety policies involved the participation and mobilisation of local authorities representing central government at the various levels of the administrative structure which were closer to the public, the road users, and directly responsible at their own level for taking such action as law enforcement and the imposition of penalties.

Such participation was often prompted by or delegated by the national authorities. It proved effective in varying degrees according to the government department concerned and the sphere of action and according to the resources employed to promote it.

These resources took various forms:

-- manuals prepared for local authorities and giving a list of possible measures, such as "The Improvement of Traffic Safety in Built-up Areas" published in 1980 by the central government, or "Measures to Ensure the Safety of the Elderly" in Finland, or "The Road Safety Code of Good Practice" drawn up by the co-ordinated associations for the regional offices of the Department of Transport in the United Kingdom;

-- funds allocated under contracts between the central government and local partners: the "10 per cent reduction aim" contracts with local authorities, towns or departments in France, or the "30 km zone" experiment and the "25 per cent reduction" contract in the Netherlands;

-- the establishment of road safety organisations, commissions or boards at local or intermediate level, such as the agencies set up in each county in Denmark or the regional road safety organisations in each province in the Netherlands.

In other countries this decentralisation of action and the relevant incentive measures were based on existing administrative units: municipal authorities in Portugal, municipal or departmental authorities in France, regional authorities in the United Kingdom.

III - The third stage in the development of decentralised policies involves the participation of all the public and private sector partners in a **concerted action programme**.

In many of the most decentralised countries, action by associations has always been better recognised and integrated than in the more centralised countries where central government seemed to have the main role. The decentralisation of road safety measures also provided the opportunity to involve all the partners in carrying through a programme that had been jointly established and recognised by all, thus promoting the development of combined efforts calculated to improve the overall efficiency of the action.

Associations of both users and enterprises with local elected representatives and central government representatives at local level in all the spheres relating to road safety: road engineers and technicians, doctors, police, magistrates, teachers, etc. were able to draw up a programme together and develop measures to which they all assigned priority with a view to improving road safety in their own particular spheres and so participate in the achievement of the national objective.

This collaboration was developed on two levels:

-- Either on a specific subject whereby all the partners worked together to prepare a particular action for which the procedures were jointly determined. Germany offers one example relating to the safety of children on the journey to and from school: a list of possible measures was drawn up with a view to providing practical information for those responsible.

-- Or by drawing up an action programme, usually on an annual basis, for an authority or administrative unit and integrating the whole range of diverse fields relating to road safety: infrastructure, education, enforcement, etc. which was funded jointly and monitored by each partner according to specific responsibilities. An example of this formal comprehensive collaboration is to be found in the departmental road safety action programmes developed in France since 1988.

It was clearly seen at that time that road safety was not the exclusive responsibility of central government but that, in order to reach the general public of road users, the information and measures provided by central government had to be passed on to and developed by all the partners, especially locally elected representatives and the associations closest to the general public, each in accordance with his individual characteristics, spirit and objectives, but in a joint action to ensure greater clarity and effectiveness.

In providing for the participation of all concerned, this third stage -- which can be considered to mark the starting point of current decentralised policies -- makes it possible to increase each person's awareness of his share in the responsibility for the endeavours to prevent road accidents and also to broaden the range of measures to cover every field, even those that seemed to play a secondary or minor role in terms of lives saved.

2. Brief assessment of decentralised policies

This decentralisation of action in the sphere of road safety, accompanied by diversification and collaboration among the various partners, provided the necessary fresh impetus whose initial results are clearly encouraging in the light of the pattern of development in the ECMT countries over the past ten years, since the fall in the number of accidents and casualities, while not as spectacular as that in the 1970s, is nonetheless substantial.

However, the value of these policies does not lie exclusively in the favourable results achieved, even if such results are of course the major objective.

The ways in which these policies have been put into practice have given rise to procedures which not only provide benefits today but will do so in future.

The development of the individual action of very limited local scope, which could not have been conceived of or carried out at national level, is facilitated by this system, while the increasing number and diversity of such measures offers a by no means negligible advantage overall in that **new ideas are generated**. Initiatives and proposals no longer move solely from national level down to local level since it is also **easier for the results of experience to be conveyed upwards from the local level and be disseminated more widely**. The fact that ongoing exchanges of ideas have been established at all levels will certainly help to improve the road safety results during the coming years.

The collaboration among the various partners, coming to work together from very different spheres and areas of concern, has developed **reciprocal training** by means of a better mutual understanding of motivations and technical know-how, thus **decompartmentalising the ideas and enabling each partner to acquire a broader knowledge** of all aspects of road safety. This process of self-training -- combined with **exchanges of views** which are conducive to a more fruitful and constructive dialogue -- helps to generate new ideas, making it possible to establish priorities and plan major measures which are better geared to requirements and therefore more effective.

It should also be noted that the development of these decentralised policies provided the opportunity to carry out specific training programmes for a large number of people who were subsequently able to assume responsibility for road safety problems in a particular area and pass on their knowledge to others.

Accordingly, **the motivation of all concerned is often increased**, as is necessary for the continuity of any action that is to be productive in the years to come.

This exchange of experience is organised around networks consisting of specialists or those in charge in a particular field, thus facilitating the **transfer of information** from national to local level, but also in the opposite direction, as well as between the various local levels, so as to ensure the **consistency of action** that is essential if a policy is to be effective.

In short, as pointed out in a German report, these policies have made it possible to:

-- establish co-operation among the various government departments and also between elected representatives and the private sector;

-- approach problems from different angles;

-- prevent a short-sighted approach to one's own organisation;

-- reduce the risk of poor decisions;

-- adopt an objective approach to the arguments.

All these attainments should be of even greater value in the years to come, thus leading to even more effective action and greater safety on the roads.

To conclude this brief review of the trend of road safety policies over the past 20 years, it may be said that, after adopting what was essentially a national and legislative policy during the 1970s, all countries are now pursuing diversified, decentralised and concerted action policies which involve all the partners concerned at every level.

On the basis of the above examples it would seem that, while the prime objective of all current policies -- qualified local or decentralised according to the country -- is certainly to mobilise all agents in the field of road safety at national or local levels, from government departments to private enterprises -- by integrating elected representatives and associations, each according to its responsibilities, area of competence and type of contact with and nearness to the public, the actors in the field of road safety -- that objective cannot be achieved by means of a universal plan. Both the administrative organisation and the position of the associations determine the structure that must give shape to the decentralised policies. It follows that an efficient system that has proved successful in one country cannot be transferred to another country with a different structure. Accordingly, it would seem to be difficult to promote a single plan within ECMT, and the aim should be rather to set out the means or instruments needed to mobilise each actor with due regard to his position in the structure.

3. Established instruments

Among the instruments, consideration will be given in turn to the specification of objectives as a factor in the process of mobilisation, the establishment of appropriate bodies and provision of financial incentives, although it is not claimed that every aspect is covered here in full.

3.1 Specification of objectives

Any action of whatever kind is carried out with a view to attaining an objective, clear-cut or otherwise. Road safety measures are of course no exception, their ultimate aim being to reduce the number of traffic accidents and especially the number of casualties, thus contributing to the achievement of the essential task of central government which is to ensure mobility and traffic safety.

3.1.1 Specification of objectives at national level

The various policies followed over the past 25 years have often involved the establishment of precise objectives, thus reflecting the resolve of policymakers to take active steps to make the roads safer.

Two types of objective were adopted, qualitative and quantitative, each for different reasons with a view to gaining maximum acceptance by the public for which the policies were designed.

3.1.1.1 Quantitative objectives

The quantitative objectives may be either in absolute terms (x fewer deaths per year), relative terms (x per cent fewer deaths) or yet again be expressed in terms of a reduction of risk, e.g. a lower fatality rate (deaths per kilometre up to a given value).

Establishment of a maximum for the number of casualties

-- In France, in 1970, the gravity of the lack of safety on the roads had become quite unacceptable with a total of 16 000 killed per year, so a maximum figure of 15 000 deaths was taken as the first objective for the period 1970-1975.

-- In Finland, a parliamentary Committee recently set an objective to reduce by 50 per cent as compared with 1989 the number of killed by the year 2000.

-- In Spain, a maximum of 6 200 deaths was established in the context of the first national road safety plan in 1980.

Estimation of a rate of reduction in the number of casualties

In the early 1970s Canada decided to reduce the rate of fatalities by 15 per cent over the period 1974-1978 and, in 1978, revised the rate to 17 per cent over the period 1979-1983.

In 1973, Norway presented a list of priority safety measures to be implemented and, in 1980, replaced these by a quantitative objective designed to reduce the risk during the 1980s to the level existing in the preceding decade by implementing the measures announced in 1973. An additional individual objective for Oslo was to reduce the number of accidents by 30 per cent by 1990.

A number of governments have more recently established very ambitious specific objectives.

In 1986, the Netherlands announced that it was to reduce the number of casualties by 25 per cent by the year 2000.

In 1987, the United Kingdom announced that it wished to reduce casualties by one-third by the year 2000.

In 1989, Denmark set an even more ambitious objective of reducing the number of road casualties by 40 per cent.

Sweden set the objective of reducing the number of killed to 600 by the year 2000.

In 1981 France had also adopted such an approach and, in backing up all the measures decided by an interministerial commission on road safety, was aiming to reduce road traffic risks by one-third over five years.

As the results of the first two years did not come up to expectations, this objective was abandoned after two years and replaced at the end of the 1980s by the aim to bring the number of deaths below the fateful figure of 10 000.

These quantitative objectives are accompanied by a list of specific measures which are themselves qualitative objectives.

3.1.1.2 Qualitative objectives

For reasons that will be given below, a number of countries (more particularly Belgium, and Switzerland) did not want to adopt quantitative objectives but referred directly to "qualitative" objectives, specifying the content of the proposed policies, the aim being to reduce the risks by appropriate means as long as the problems exist. The scale of these objectives and the lines of approach adopted differ from one country to another according to the types of problem or in the light of the main accident parameters (user group, place and characteristics, types of accident, etc.). The aim may be to improve the safety of particular road user categories (pedestrians, the elderly, riders of

two-wheelers), or else the focus may be on highly specific areas (speed, alcohol, seatbelts, night-time traffic, improvements to the road network, etc.), examples being:

-- in Ireland, compliance by young drivers with the laws on drink/driving and the wearing of seatbelts;

-- in Belgium, compliance with regulations on speed limits, the wearing of seatbelts and helmets and drink/driving;

-- in Sweden, earlier objectives have been to reduce the risk in very particular conditions, such as night-time driving, travelling at high speeds, or drink/driving.

These qualitative objectives can also be quantified as follows, for example:

-- the endeavours to combat drink/driving can be expressed in terms of a number of checks to be carried out or a specific reduction in the percentage of checks found to be positive;

-- greater compliance with speed limits by a reduction in the percentage of drivers exceeding the limit;

-- the wearing of seatbelts by trying to get a given percentage of drivers to wear belts.

3.1.2 A choice between qualitative and quantitative objectives

A quantitative objective is usually established in order to show that the political will exists to combat road accidents. Such an objective serves as a reference and for the purpose of communication, but is also a tool for the management and assessment of road safety programmes.

As an instrument of communication, a quantitative objective must be ambitious, since it would hardly be credible to try to reduce the number of road casualties by 3 per cent or even 10 per cent.

The establishment of a figure implies that the present results are recognised to be unacceptable but also suggest that the proposed figure to be attained is itself acceptable, either at an initial stage or once and for all. It is therefore a way of recognising that the freedom to travel on the roads is accompanied by a risk that cannot be reduced to zero, just as this is accepted for other means of transport (air, sea or rail) or for sports and recreational activities.

The objective might be to lower the level of risk on the roads to that existing for other modes of transport, which is not to say that the level attained for rail or air travel is acceptable and that nothing has to be done to reduce it still further.

The fact that users accept the existence of a minimum risk, which takes the form of a number of casualties which cannot be reduced although this number cannot be evaluated precisely, is of educational value. That might seem shocking but can also lead to an awareness by the user and even, according to some specialists, promote a better acceptance of the measures taken to reduce the level of risk.

The establishment of a quantitative objective may also have several drawbacks. If it is not achieved or, on the contrary, is substantially exceeded, the programme manager must explain the error of assessment, which is seen as particularly serious since human lives are involved.

For example, the 15 per cent reduction in the rate of fatalities established in Canada for the period 1974 to 1978 was improved upon to the extent of 33 per cent, although not all the improvement could be attributed to the road safety programme implemented. A good part of this improvement may perhaps be explained by other factors such as the way in which the 1973 crisis affected traffic.

The achievement of the 17 per cent reduction planned in the subsequent programme -- based on an 80 per cent rate for the wearing of seatbelts whereas the rate was in fact 45 per cent -- was also difficult to explain and did not make the task of determining further objectives any easier for the authorities.

In France, however, the objective established in 1981 whereby road accidents were to be cut by one-third had to be abandoned because the results of the following two years made it impossible to achieve. The abandonment of the reference objective is by no means to say that the programme is abandoned, since it is then either revised or continued.

The difficulty of establishing a quantitative objective is largely attributable to the difficulty of assessing the impact of measures taken, especially those relating to education or information.

Present methods of assessment do not allow for any certainty but only an estimate of the foreseeable benefits.

Moreover, the closely interrelated nature of the measures in existing road safety programmes means that effects are difficult to measure accurately, while the system is further disrupted by unforeseeable or imponderable external events.

It is largely for these reasons that a number of countries do not quantify their objectives but use the "qualitative" method, an approach that clearly shows the difficulty of accurately assessing a programme's effectiveness in advance, although it also takes account of the need to work unceasingly to improve road safety.

3.1.3 The establishment of objectives at local level or partial objectives

In the context of decentralised, integrated and concerted action programmes, the action taken by each partner contributes to the attainment of the overall objective.

Each can therefore set himself an objective in relation to the type of action he takes, an objective that will likewise be quantitative or qualitative.

This partial objective may be the same as that determined at national level but relate to a given geographical area, or it may be quite different.

Different quantitative or qualitative solutions are possible:

A quantitative objective may be established with reference to a specific action relating to a particular category of user (pedestrians, cyclists, the elderly or children, etc.) or a certain type of improvement designed to avoid particular types of accident (accidents at intersections, crashes against trees, etc.) or infrastructure characteristics (motorways, built-up areas).

Other partial objectives may be designed to modify certain types of deviant or dangerous behaviour by means of appropriate measures and to improve the results in terms of offences recorded with respect to speeding, seatbelt wearing, drink/driving, etc.

The diversity of these partial objectives can enable each actor to identify his action, calculate its efficiency and feel fully involved in the attainment of the overall objective insofar as he focuses on the achievement of one objective that is more readily within his grasp.

In the last analysis, it is up to each country to select the approach best suited to it. In any event, it would seem that the specification of objectives, whether quantified or not, makes it possible to develop a coherent set of safety measures and serves as a catalyst by gathering together at the planning stage all the actors to be responsible for implementing the measures. Moreover, the establishment of a programme based on objectives provides for the rational and co-ordinated management of road safety work at all levels of responsibility. Lastly, it is important to be able to disaggregate a set of objectives so as to ensure the decentralisation of the different types of action to be taken by the partners concerned.

As pointed out in the above-mentioned OECD report "... there is no magic formula to apply in determining safety goals and safety programmes". However, various factors have to be taken into account, such as the involvement of the various partners of different origin, the use of decision-making criteria and, lastly, sound judgement whereby one can determine the most important objectives and the most appropriate resources and means for achieving them.

3.1.4 Specification of an objective for ECMT

Even if it is not given formal expression, a specific objective is clearly established by any actor in the field of road safety when he determines the action to be taken. To set the objective out clearly often amounts to a commitment, a kind of moral contract between the actor and the community which gives value to the action that he proposes to take.

As already pointed out, this approach is more a reflection of his concern to show his commitment to prevent road accidents than it is the outcome of a reliable mathematical calculation of the foreseeable benefits from carrying out the action planned.

What is already difficult for any individual country is even more so for a number of countries. Would it be possible, for example, to establish a quantitative objective for the reduction of accidents or casualties for all ECMT countries by the year 2000?

The response may be positive if the aim is simply to publicise the ECMT's resolve to combat the lack of safety on the roads and thus lend weight to the recommendations that it has been drawing up for a number of years and, of course, those to be drafted today and in the future.

Owing to the differences in the situations of the various ECMT Member countries, two difficulties arise which can be set out in the form of questions:

-- What figure or what percentage reduction is to be selected?

-- Does each individual country have to adopt for itself the objective set by ECMT?

Account has to be taken of a number of factors in order to answer these questions.

In contrast with those countries in which car ownership is growing and road infrastructure has not as yet developed to the full, countries that have for many years been unsparing in their efforts in this connection no longer have the resources needed to take major regulatory measures or even to construct the infrastructure that would enable them to improve their results to any appreciable degree.

A number of countries can hope to reduce the number of casualties by 20 per cent within a short period, while for others it would seem impossible to achieve this objective and it will already be very difficult to progress by a few percentage points.

In order to be effective and develop policies geared to a country's situation, it would seem reasonable for each country to determine its own attainable objective since, as indicated above, failure here is difficult to handle.

Countries which have had effective policies at an earlier stage and whose considerable efforts have enabled them to establish road risk levels well below those in other countries, and therefore more difficult to reduce still further, will find themselves penalised insofar as they might set an unduly high objective that will not be attained or set a low one which might seem fairly unambitious.

However, countries that can expect to reduce the risk considerably by taking measures that have already proved successful elsewhere -- provided they are suitable for local conditions -- and by constructing infrastructure, for example, are experiencing funding problems which do not allow them to make rapid progress.

Accordingly, the results achieved by any of these countries are not necessarily commensurate with the efforts made. Any rapid comparison of the results based on the figures might well be unfair and have disastrous effects from the standpoint of the impact on the public.

In short, it would seem difficult to establish a common objective for all ECMT Member countries, and it would also be somewhat problematical to set an individual objective for each country as a contribution towards the attainment of the overall objective.

The establishment of an overall objective for ECMT, while perhaps introducing an additional motivation for each country and enhancing the ECMT's action in this field, may have harmful effects on the public in these countries which would be of far greater importance than any benefits to be expected.

These considerations prompted the ECMT Secretary-General to set a qualitative rather than quantitative objective, that is to say to pursue, develop and step up the endeavours to combat the lack of safety on the roads by very broadly promoting international co-operation, the harmonisation of legislation and exchanges of information and experience, as well as by recommending that the various Member countries take specific measures on a co-ordinated basis.

It should be noted that in a report to the Commission of the European Communities, a group of experts chaired by Mr. Gerondeau proposes that the Community should establish an objective of reducing the number of road accidents throughout the Community by 25 to 30 per cent over the next ten years, and it sets out a list of measures to be taken jointly.

3.2. The establishment of appropriate bodies

Once the problems of road safety became a matter of concern in the early 1970s, the shaping of policy was accompanied by the establishment of a suitable administrative structure to carry out that policy effectively. Such a structure was of particular importance in that the diversified policy involved a number of ministries with responsibilities and functions as different as those of the Ministries of Education and Justice. It was found that co-ordination of the action taken by each was essential to the administration and success of the policy.

This co-ordination was in many cases ensured by bodies set up for this purpose, such as:

3.2.1 At national level

-- In Portugal in 1989, a commission consisting of the Ministries for Justice, Interior, Health, Public Works, Transport and Communications.

-- In France, an Interministerial Road Safety Delegation attached to the Prime Minister's office.

-- In Spain, a Higher Council for Traffic and Road Safety set up in 1976 under the Minister for the Interior to draw up integrated road safety programmes. Under the Road Safety Act of 1990 thus became the Higher Council for Traffic and the Safety of Road Traffic with extended responsibilities, including the preparation of policy, counselling and the co-ordination and promotion of road safety measures.

-- In Sweden, the Swedish Road Safety Office within which a Road Safety Board brings together several bodies concerned with road safety, such as the Federation of county councils and the association of local authorities, which is also responsible for submitting proposals to the government. Since 1986 the Board has also been responsible for laying down the main lines of local policy and developing and co-ordinating local measures.

-- In the Netherlands, creation of a Higher Council for Road Safety, whose task consists of making concrete proposals to the government.

-- In Belgium, establishment of the Belgian Institute for Road Safety.

The Swiss Road Safety Board is another example of this type of body and is an association set up under private law in which the Confederation, Cantons, Communes, private associations and institutions and enterprises are represented. The Board is responsible for promoting and strengthening all measures designed to improve road safety. More particularly, it draws up and conducts the information campaigns conducted at national level each year.

In federal countries, road safety policies are primarily co-ordinated by means of existing administrative structures and the institutional procedures for consultation between national and regional authorities and all concerned with road safety.

3.2.2 At local level

During the process of developing decentralised policies a number of countries also decided to set up a regional body -- as the Netherlands has done in each province -- with its own budget to develop

and co-ordinate the various types of action at local level, initially confined to road infrastructure but extended to all road safety spheres since 1989: information, training, enforcement.

Another example is to be found in Switzerland where, with a view to ensuring a fairly consistent approach and uniform application of the law (which comes within the competence of the cantons), the cantonal authorities consult within intercantonal associations such as the "Association des Services des automobiles", the "Commission intercantonale de la circulation routière", and the "Conférence des Officiers de Police".

Less formally, the departmental programmes for action in the field of road safety, introduced in France in 1988, can be regarded as an instrument or even a structure for co-ordination geared to the approach adopted in the context of decentralised policies.

The above are but a few examples since a full list cannot be given, but they do show the need to set up appropriate structures or bodies so as to monitor the policies being implemented.

3.3 Financial incentives

As shown in the report, the source of decentralised road safety measures is often at central level or in a central body in the form of contracts which include financial incentives.

Measures such as the improvement of infrastructure, elimination of black spots or multiple accident areas and the creation of reduced speed areas (such as the 30 km/h zones) in the Netherlands in 1975 were covered by the first types of contract between the central government department responsible for road safety and the local authorities in those countries with a centralised system.

As from the early 1980s, however, many countries developed other types of contract with regional and local bodies for other forms of action than that related to infrastructure. Programmes such as REAGIR, launched in France in 1983, and those in the Netherlands in 1989 included measures that covered areas such as information, education, enforcement and communications campaigns.

This financial participation by central government was sometimes in the form of a budget entirely at the disposal of local authorities, part funding of a highly specific measure (joint action with the municipal authorities in Finland), or an incentive to take action by the provision of a sum proportional to the number of inhabitants (25 per cent reduction programme in the Netherlands or the 10 per cent reduction contract in France) or, more rarely, the award of a bonus for success by payment of a sum proportional to the number of lives saved (10 per cent reduction contract in France).

These funds are allocated by central government in all cases.

Another example is the Fonds Suisse de Sécurité Routière (FSR), an institution set up under public law and under the supervision of the Federal Council, which primarily funds research, education courses and means for road safety training, information campaigns and other forms of action carried out by various bodies or road-user associations. The FSR obtains its capital from an annual contribution paid by each vehicle owner which amounts to 0.75 per cent of the net premium for third-party insurance.

These financial contributions provide a means of developing action in the field of road safety by all the partners concerned, but they also serve to initiate such action, confer the right of inspection and a counselling role, and strengthen the collaboration among the various partners.

Conclusion

The decentralised policies now conducted in the various countries should be pursued in the future and be further refined so as to ensure the even broader mobilisation of all those who have some contribution to make -- however limited in scope -- to the endeavours to combat the lack of safety on the roads, and also to ensure closer collaboration among all concerned.

Nation-wide legislative measures still need to be taken, even if the stringent application of each of them does not in itself reduce the number or gravity of road accidents to any great extent, since the combination of a number of minor measures can no doubt produce significant results. The experience acquired at local level should also lead to new proposals.

The results obtained are sufficiently representative to establish the efficiency of these diverse policies and, accordingly, provide a basis for recommendations.

Notes

1. "Integrated road safety programmes", OECD, Paris, 1984.

2. Report on integrated road safety policies.

REPORTS APPROVED
BY THE COUNCIL OF MINISTERS

REPORT ON ECMT'S THREE-YEAR PROGRAMME OF WORK FOR THE PERIOD 1993-1995

[CEMT/CM(92)16]

DETAILS OF THE PROGRAMME OF WORK

This section sets out a number of proposals for both topics and the bodies that might deal with them. In some cases it is suggested that particular bodies be set up, modified or discontinued.

A. Work of the Economic Research and Documentation Division

1. Economic Research

The Round Table programme is drawn up by the Economic Research Committee -- which might in future be called the Economic Research Group -- whose members consult the appropriate bodies in each country in order to select topics of current concern or policy issues.

The Round Table programme for 1993 thus includes the following topics:

-- Privatisation of railways, modalities and obstacles
(Round Table 94 -- 4/5 February 1993).
Privatisation is seen as a solution to the high deficits of railways and the decline in their activity. It should help to clarify the accounts of the railways and the respective roles of governments and operators. However, it raises the problem of public service needs and infrastructure funding. All these points are to be analysed in detail.

-- Infrastructure and transport systems renovation, notably in the East-West framework
(Round Table 95 -- 18/19 March 1993).
The foreseeable expansion of East-West trade gives rise to the problem of the suitability of existing infrastructure. Since infrastructure capacity and quality problems will appear whatever the transport mode may be, priorities must be established.

-- Short-distance travel
(Round Table 96 -- 10/11 June 1993).
The bulk of personal travel is over short distances, particularly in urban areas. Public transport infrastructure must therefore be provided to curb growth in private car traffic. Various new technologies are emerging and they must be assessed.

-- Charging systems for urban infrastructures
(Round Table 97 -- 4/5 November 1993)
Private car users do not cover the costs they generate in urban areas, that is to say the costs relating to pollution and congestion. Public authorities are trying to find a means of curbing traffic within and at the approaches to critical areas. A number of different methods are under consideration, including the introduction of toll systems. It is important to compare and assess the solutions proposed.

-- Coverage of interurban traffic costs
(Round Table 98 -- 2/3 December 1993)
The problems dealt with by the preceding Round Table will be taken up again here but in the context of interurban traffic since it seems that road infrastructure is less and less able to cater for the ever-increasing demand. As the terms of intermodal competition are not harmonized either, the existing balance would seem to be somewhat uncertain.

In 1994 the Economic Research Division is planning to hold two Round Tables and a Seminar:

-- Structure of the freight transport sector
(Round Table 99 -- March 1994).
Social problems in the freight transport sector will be covered.

-- Research in transport economics: past trends and future prospects
(Round Table 100 -- May 1994). The aim of this 100th Round Table will be to take stock of earlier research and foresee future problems.

-- What is the future for urban transport?
(International Seminar: second half of 1994).
This topic can be approached by means of various case studies illustrating successes and failures.

In 1995 a Symposium will be held -- the topic will be selected in due course in the light of events -- as well as two Round Tables on topics that may be taken from the following list:

-- transport, tourism and leisure;

-- access to the transport market in East-West relations;

-- intermodal competition in passenger transport in Europe;

-- regional freight terminals;

-- complementarity and competition between air and land transport;

-- express delivery services.

Infrastructure appraisal methods and practices is another subject that might be taken up by the ECMT.

It should be borne in mind that, at the request of the Greek Delegation, a special symposium had been planned for 1992 on "The integration of the European transport system and the special problems

of peripheral countries." The preparation of this symposium, which was already well under way, had to be interrupted for budget reasons concerning the host country.

This topic should not, however, be excluded from the proposals for the present programme of work.

2. *Documentation Centre*

From the outset the ECMT Documentation Centre was given a dual role:

- -- an internal role, i.e. to provide members of the Secretariat and ECMT working groups with the information and documentation required to carry out their work;

- -- an external role, i.e. to give the international research community access to the existing sources of information on transport.

These two complementary objectives resulted in the development of an international bibliographic data base known as **TRANSDOC** whose input is supplied by a European network of transport documentation centres (**ICTED -- International Co-operation in Transport Economics Documentation**). This database has been accessible on-line since 1982 via the European Space Agency [ESA-IRS[1]] host.

In response to ECMT's new geographical coverage, the network correspondents at the general meeting held in April 1992 strongly advised the ICTED management bodies to develop projects and products that could meet the Central and Eastern European countries' information and documentation needs more effectively.

In its programme of work for the period 1993-1995, the ECMT Documentation Centre should therefore take a dual approach:

a) on the research side: the compilation and dissemination of multimodal information providing socio-economic data on transport in Europe, including the Central and Eastern European countries, with special reference to environmental problems and traffic and investment management issues;

b) on the technical side; research and development work on documentary products and computer equipment that would meet the greater needs of researchers and planners and form part of the general pattern of technological development, i.e. in particular:

   - -- the internationalisation of the TRANSDOC version of the CDS/ISIS[2] software for distribution specifically to centres which use microcomputers to process transport documentation; this software, which is particularly suitable for working conditions in Central and Eastern European countries, should allow full compatibility between operating systems and thus facilitate the exchange of information, thereby achieving time gains and accordingly substantial savings in the centres concerned;

   - -- creation of interfaces between different processing systems for centres not using CDS/ISIS, in order to facilitate data transfers and reduce data acquisition costs;

-- on the basis of co-operation between international organisations, joint development and commercial distribution of a CD-ROM optical disk containing all the transport data provided by the United States [TRIS[3] database], the OECD/Road Transport Research Co-operation Programme [IRRD[4] database] and the ECMT (TRANSDOC base).

Work on item (a) will require the preparation of co-operation agreements with the new ECMT Member countries based on those concluded with the Central European countries which are already Members (Poland, Hungary, CSFR).

Work on item (b), on which preliminary studies have already been carried out, will require the creation of a restricted working unit which will consist of delegates from the three organisations producing information and be responsible for defining the trilingual data consultation system as well as the project's legal and financial implications. Market research will have to be conducted jointly by the disk's producers and distributor to ensure that the operation will be financially sound. Lastly, a formula for allocation of the expected revenue will have to be worked out. This project is in line with the current trend in procedures for access to information and will concern a university public who, for financial reasons, cannot make full use of the possibilities provided by international hosts for on-line access to databases.

Finally, the Documentation Centre will contribute to the study of the requirements for the creation of an international statistical database which will be accessible on-line via major hosts and be jointly supplied by the intergovernmental organisations concerned with transport (see section on Statistics below).

B. Work on specific topics in the policy field

Proposals are set out below for the Conference's work over the next three years in the following fields:

1. Integration of the new Member countries
2. Environment
3. Trends in international traffic and infrastructural needs
4. Transport, computers and telecommunications
4a. Road-vehicle communications (RVC)
5. Urban transport
6. Removal of obstacles to international goods transport
7. Transport for people with mobility handicaps
8. Combined transport
9. Railways
10. Inland waterways
11. International road haulage
12. Multilateral quota
13. Road safety
14. Road traffic, signs and signals
15. Statistics

1. Integration of the new Member countries

The Committee of Deputies considered that this matter was clearly a priority in the ECMT's new programme of work and might be regarded as covering two types of activity:

a) Follow-up to the Prague Conference

At its Athens Session the Council of Ministers requested that a policy debate be organised in May 1993 concerning means of coping with the growth in traffic in the context of an enlarged Europe, the fullest account being taken of environmental and safety issues.

The Conference's existing working bodies will accordingly be asked to prepare specific submissions for this debate which may be organised on the basis of the following two topics:

-- infrastructure congestion and investment requirements (submissions on trends in international traffic and infrastructural needs, submissions by the European Communities and the United Nations Economic Commission for Europe, etc.);

-- management of demand and the environment (submissions on accounting for external effects, environmental standards, traffic management, irrational transport operations, etc.).

Some delegations would also have liked the debate to cover problems of market access and the facilitation of transport operations. However, the Committee of Deputies considered that this May 1993 debate by the Council should cover only matters relating to the growth of traffic and that those relating to market access should first be dealt with by a specific working body of the Conference.

Following the debate by the ECMT Council in May 1993, the ECMT will be required to prepare a submission on the same subject for the new All-European Transport Conference scheduled for the end of 1993.

b) Other work

Consistent with the views set out above, a working body might be set up to examine all the issues bound up with the integration of the new ECMT Member countries and it might during an initial phase:

-- consider when and to what extent these countries will be able to subscribe to the principal ECMT Resolutions (i.e. what has already been accomplished by the Conference) and to market economy rules; this calls for a detailed analysis of the texts in question and a policy assessment of what is now to be regarded as a common denominator for the future All-European transport system;

-- take steps to facilitate the transition towards a market economy in the transport sector in these countries.

This body may in practice take the form of a specific working group or involve ad hoc meetings organised in the countries more particularly concerned.

A choice will therefore have to be made in this connection, it being understood that existing working groups can in any event make contributions in their own particular spheres. It should however

be pointed out that, as matters now stand, the road transport sector is not covered by any of the Conference's working groups, other than for purposes of the multilateral quota.

2. *Environment*

This subject has been central to ECMT's work in the last three years. The growing problems caused by transport and the lack of fully satisfactory solutions suggest that it will remain one of the main matters of concern in the foreseeable future.

A feature of this work is the close co-operation with OECD and other international organisations. A joint OECD/ECMT Working Group on Urban Transport and Sustainable Development has been set up by the Committee of Deputies and the Urban Affairs Committee. This work is to continue until late 1993 and will include the organisation of a major conference in Düsseldorf in June 1993. In addition, a number of seminars have been organised with OECD and IEA (e.g. on electric vehicles, economic instruments in urban transport and clean and fuel-efficient vehicles). This form of co-operation should also continue.

The ECMT could make a contribution in the following spheres:

-- the achievement of sustainable development in transport, more particularly by:

. examining the general consequences of the Earth Summit in Rio de Janeiro and drawing up a report in this connection;
. producing a report on the policy challenges associated with the objectives to be attained in the process of reducing CO_2 emissions;
. completing the work carried out jointly with OECD concerning urban transport and sustainable development;

-- discussions with industry; on this point a decision will have to be taken on the possibility of a further hearing of representatives of industry by the Council of Ministers;

-- monitoring the implementation of the 1989 Resolution; priorities will have to be established here, and the activities selected may include in particular:

. summary reports on the measures taken by the various Member countries in specific fields;
. detailed analysis of the policy measures pursued in one or more countries;
. a review of the situation and current progress in the countries of Central and Eastern Europe;
. a report on incentives used to promote the introduction of better technologies;

-- preparation of a summary report on social costs and methods of calculating and internalising them, also examining the relations between economic growth and growth in the transport sector.

. ***Meetings:*** *two 1½ day meetings a year for the ECMT Group and two 1½ day meetings for the joint Group.*

Seminars: *one or two seminars in the period 1993-1995, accompanied by some joint OECD/IEA seminars.*

3. *Trends in international traffic and infrastructural needs*

The work under way on infrastructural needs and methods of ensuring smooth inland traffic flows in Europe should be completed in 1993.

The work will update the report on "International traffic and infrastructural needs" which was submitted in 1986 to the Council, since on this occasion the Council of Ministers instructed the ad hoc Group on trends in international traffic to monitor regularly traffic trends in Europe as well as in the resulting infrastructural needs and to report back to it on this subject in due course.

On the basis of two surveys conducted in 1991 and 1992, the above-mentioned Group and the Sub-Group on infrastructural needs expect to submit a new report in **May 1993**. This will be one of the background documents for discussion of the follow-up to the Prague Declaration. The report will examine in particular the foreseeable trend in passenger and goods traffic trends in Europe, the consistency of national forecasts, the present situation concerning infrastructure and planned investment, capacity problems and remedial action.

Following the scheduled discussion, it will then be up to the Council of Ministers to decide whether the ad hoc Group's work should be continued and, if need be, give this Group new instructions, particularly in connection with the incorporation of new ECMT Member countries and their specific infrastructural needs.

Meetings: *two days in 1993.*

4. *Transport, computers and telecommunications*

The main lines of the future programme of work of the ad hoc Group on transport, computers and telecommunications (TCT Group) were submitted to the Council of Ministers at the Athens session [CEMT/CM(92)11].

In accordance with the guidelines laid down by the Council of Ministers in its Resolutions CEMT/CM(90)10 and CEMT/CM(91)22, the TCT Group intends in the coming months to carry out work in various fields with a view to the introduction of telematics systems in the transport sector in Europe. Some of this work directly follows up earlier activities. In other cases, however, it concerns issues which ECMT has not tackled so far.

i) Continuation of current work

-- Monitoring of current programmes and research

As in the past, the TCT Group will be reporting back regularly to the Council of Ministers (in theory once a year) on the various work being conducted in Europe on telematics applications in the transport sector (in particular DRIVE II and PROMETHEUS). The aim is to highlight the issues involving these applications which call for the adoption of policy stances. The Group also plans to step up its contacts with ERTICO, a semi-public, semi-private body, set up to facilitate the co-ordinated introduction in Europe of advanced transport telematics systems.

In accordance with the decisions taken by the Council of Ministers, some issues will be very closely monitored (safety aspects, consideration given to public transport; RDS-TMC message system and its extension to urban areas; progress with standardization at European level; organisation of traffic data interchange among the various operators).

-- Administrative and legal problems in connection with route guidance/driver information systems

An initial report on this subject will be submitted to the Council of Ministers during 1993. On that occasion the Council could instruct the TCT Group to continue studying this question, primarily to take stock of the already foreseeable changes in the legal and administrative context in the various countries. The Group could then also make proposals for the preparation, at European level, of certain rules on the relations between the authorities and operators and the relationship between the public and private sectors.

-- Safety aspects of on-board equipment

Equipment which is designed to assist the car driver changes the relations between driver and vehicle and may influence behaviour and driving responsibilities in a way that is detrimental to safety in some circumstances.

The TCT Group intends to continue its current work in this field with a view to reaching a consensus on any regulations or codes of good practice to be established at international level.

ii) New activities

-- Greater co-operation among transport operators

The DRIVE II programme seeks to ensure the necessary interfaces between private and public transport with respect to overall management of transport supply and demand, integrated travel information and more efficient management of road traffic.

This approach will not suffice unless public transport operators also draw up integrated programmes catering for their own needs as regards management and information and co-ordinate these activities with those planned in the context of DRIVE II.

Accordingly, it is proposed that the TCT Group should ask the organisations concerned (ECAC, UIC, UITP) to draw up specific programmes that can be co-ordinated with the DRIVE II programme.

This is the only way of developing intermodal supply providing high-quality service, while at the same time reducing congestion on highways or in urban areas carrying the heaviest traffic and improving the environment both locally and in general.

-- The establishment of guidelines for the co-ordinated development of applications relating to information for travellers, road traffic information and route guidance

The final aim is to enable the traveller, more particularly the driver of a private car, commercial vehicle or motorcoach, to receive consistent, useful and up-to-date information

along the whole or major part of his route. This aim requires the co-ordinated development of a number of provisions (with particular reference to the compatibility of operation among the various transport modes and among the various techniques that may be used; continuity throughout the main routes, the level of quality of service, the dissemination of information in accordance with European standards, equipment on routes).

In the absence of a master plan for such applications -- which would seem to be utopian -- the TCT Group could submit to the Council of Ministers some guidelines, to be established in collaboration with the Commission of the European Communities, whereby the above objectives may be attained gradually in accordance with a given timetable.

Meetings: *three days a year.*

4a. Road/vehicle communications (RVC)

This work is carried out by a Sub-Group of the Group on transport, computers and telecommunications. The sub-group consists of experts from Member countries as well as industry representatives and consultants. It was set up in 1986 and has provided a forum for the discussion and development of ideas on the transmission of traffic messages to motorists. These messages are sent digitally on the Radio Data System and can be interpreted by vehicle equipment. The coding of these messages, a technical matter, has been given policy approval by Ministers and the coding will therefore be used in the field trials now starting.

The sub-group is used as a sounding board for the development of practical ideas, as a contact point with the European Broadcasting Union and as a way of obtaining policy support for approved ideas. It is also a good example of close co-operation with the EC through the DRIVE programme.

The sub-group now proposes to:

-- monitor the field tests under way and oversee any amendments that are needed in the agreed coding system;

-- examine extensions of the system, including the use of messages in urban areas;

-- look at a system of European coding (a standardized agreed set of locations is needed if such an information system is to be used).

Meetings: *two one-day meetings a year.*

5. Urban transport

Urban transport problems have essentially been dealt with up to now by the Urban Transport Co-ordinating Group (UTCG) which submitted reports to Ministers for information and discussion.

The UTCG is at present conducting an in-depth study on light rail systems which is to be completed and submitted to the Ministers in May 1993. The Group is also preparing a report on changing fares systems and structures in urban public transport.

By and large, however, national delegations do not seem to be particularly enthusiastic about the UTCG's work in that only a small number of countries participate regularly in its activities.

This is, however, a problematical subject which is admittedly not of great relevance to national authorities in the context of their policy co-operation in Europe, although it is a subject on which Member countries can very profitably compare notes among themselves or even with Associate Member countries.

In view of the foregoing, the Committee of Deputies decided in favour of winding up the UTCG and dealing with urban problems by other means such as, for example, engaging independent consultants to draw up reports on specific topics, holding Round Tables or Seminars attended by both researchers and practitioners, or where appropriate, carrying out work jointly with OECD, which was the approach adopted with the recently formed ECMT/OECD "Group on urban travel and sustainable development".

6. Removal of obstacles to international goods transport

The last report on the follow-up to Resolution No. 50 on the removal of obstacles to international goods transport dates back to November 1990. It had been agreed at the time that ECMT would contribute to this exercise by monitoring progress generally and assessing the results within a period of four years (1994) after the Single Market had been set up. This same exercise was to enable the new countries which were then Observers -- in 1990 -- to see whether it had been possible to adopt western international legislation and what the outstanding problems in this area were.

Since then the Observer countries concerned have become full Members, while others soon will be, so consideration must be given to the advisability of conducting a further survey, possibly focusing on problems experienced in relations with the new Member countries.

No meeting.

7. Transport for people with mobility handicaps

Work in this field has led to significant progress across ECMT in improving transport access for people with mobility handicaps. Through ministerial resolutions, published reports and a series of international seminars, knowledge has been greatly increased on specialised topics and broad agreement has been reached among all those concerned on the approach to be taken. The Commission of the European Communities and the U.N. Economic Commission for Europe are currently considering regulatory initiatives that might be taken.

It is now believed that a period of consolidation and implementation is required. In the immediate future work will focus on following up recent resolutions on access to buses, coaches and trains. In particular, closer working relations will be established with operators (especially through UIC, IRU and UITP) so that their views and difficulties can be openly discussed.

The various studies completed by the Conference have been submitted to the Council of Ministers on a number of occasions since 1985 but they have not usually given rise to any discussion of substance. In 1994, therefore, it is proposed that a review be carried out on the implementation of resolutions adopted by the Council. It is also proposed to draw Ministers' attention to the relevant

policy issues and problems, including those of a financial nature, with a view to holding a general debate on the matter.

Meetings and seminars: *about 2½ days a year.*

8. Combined transport

In the preceding period the Combined Transport Group focused on two activities: first, the examination of improvements to the main international piggyback routes in Member countries, which was the subject of a report submitted to the Council of Ministers in November 1991; secondly, a study of the trends in loading unit dimensions so that Conference Members could present the most united front possible at the international Seminar on this subject organised by the United Nations Economic Commission for Europe in September 1992.

It may be considered that the second task has been completed. However, under the current programme, the Group should:

-- at the start of 1993, provide the international organisations and, where appropriate, the national agencies concerned with a glossary prepared by it;

-- submit to the Ministers in 1993 a Resolution on the promotion of combined transport reflecting the approach defined by the Austrian Delegation at the Athens Session; this Resolution could form part of a more general document concerning general transport policy in Europe (in connection with the follow-up to the All-European Conference in Prague);

-- resume in 1995 the exercise on improvements to major international piggyback routes, taking into account the work on railways carried out by the Commission of the European Communities and work by the UN/ECE to update the European Agreement on Important International Combined Transport Lines and Related Installations (AGTC).

New study topics are also suggested by work recently undertaken by the Group and the Conference itself:

-- examination of the interfaces between the maritime/port aspects and land aspects of combined transport, with particular reference to short-sea shipping;

-- problems affecting the development of combined transport between Eastern and Western Europe -- as a possible follow-up to the conclusions of Round Table 90 on combined transport held in December 1990;

-- in co-operation with the ad hoc Group on Railways, study of the problems that combined transport presents for railways and the obstacles to its development; the work might possibly be undertaken by the two Groups within a joint structure (see also item 9 below).

Meetings: *two or three one-day meetings a year.*

9. Railways

The main lines of activity proposed for the ad hoc Group on Railways in the next three years are discussed in greater detail in CEMT/CS/CF(92)1.

The main topics are as follows:

-- Problems arising in connection with the Community's regulation of the railways.

The Directive on the development of the railways adopted in July 1991 by the Council of the European Communities seems likely to modify considerably the framework for international rail traffic. It would perhaps be worthwhile to examine the implications for the non-EC countries and to draw up a Resolution in ECMT to extend the provisions recently laid down in the European Communities to all Member countries of the Conference, particularly with regard to the independent management of rail undertakings, obligations inherent in the public service concept, improvement of the financial situation of the railways, separation of infrastructure management from the operational side, and access to infrastructure.

In this connection the Group on railways might also examine possible ways and means of privatising railways and the relevant problems. The findings of the Round Table scheduled for February 1993 (see work of the Economic Research Division) should be made available in this respect.

An initial paper on these subjects could be submitted to the Council of Ministers at the **May 1993 session.**

-- Relations with the railways of new Member countries.

The Group has previously studied measures whereby both technical and commercial improvements might be made in the short term in international freight and passenger services by rail.

Such an exercise might be taken up again on a more specific basis by focusing the analysis on problems experienced in rail links with the new Member countries (Czechoslovakia, Hungary and Poland) and on ways of resolving them.

An initial report on this subject will be submitted to the Council of Ministers in **May 1993** in connection with the general discussion on the follow-up to the Prague Declaration.

-- Implication of combined transport operations for the railways.

There are signs suggesting that rail's existing structures are not always conducive to any real development of combined transport operations.

Within ECMT such operations have hitherto been approached from an essentially multimodal standpoint. It would no doubt be advisable to approach the matter specifically from the standpoint of the problems that combined transport presents for the railways and the relevant obstacles to its development. The work might be undertaken by the ad hoc Group on Railways in close collaboration with the Combined Transport Group, possibly within a joint structure.

-- Compatibility of technical standards.

At the Council's November 1991 Session, a number of Ministers said they would like the Council to organise the hearing of representatives of industries producing railway rolling stock and equipment, a hearing that might be arranged on a similar basis to that of the automobile manufacturing and oil industries in November 1990. It should primarily relate to the compatibility of equipment and enable both policymakers and industry representatives to make clear what they expect in this connection. The organisation of such a hearing would in principle be the responsibility of the ad hoc Group on Railways.

Meetings: *three days per year.*

10. Inland waterways

The work of the ad hoc Group on inland waterways in 1991 and 1992 was completed with the adoption of the new classification of inland waterways in June 1992 at the Athens Session.

Depending on work by other bodies, the Conference should in the future focus on access to traffic and access to waterways for countries which have none. The Secretariat should, however, closely monitor the practical follow-up action on the new classification which is to be taken by preparing maps or atlases.

ECMT's new geographical coverage also results in a new inland waterway network and different development conditions which could be examined either by the ad hoc Group or the group to be set up to examine problems in connection with the integration of the new Member countries, as proposed under B.1 above.

No meetings for the time being.

11. International road haulage

With a view to the establishment of the Single Market, ECMT had set up an ad hoc Group responsible for preparing a multinational agreement on international road transport.

The basic idea was to prepare the ground for those ECMT Member countries which do not belong to the European Communities to participate later in a very large-scale liberalised market and, assuming such a development, extend the Community's achievements in the sector to the harmonization of competitive conditions in road transport, provided this is conceivable from the policy viewpoint.

The ad hoc Group had done some very useful work in submitting Resolutions -- which have been adopted by the Council of Ministers -- on a whole series of basic provisions relating to:

-- the qualifications for admission to the occupations of road haulage or road passenger transport operator;

-- the use of vehicles hired without drivers for the international carriage of goods by road;

-- the weights and dimensions of certain commercial road vehicles.

However, with the recent conclusion of the Agreement on the European Economic Area, this line of approach is essentially superseded; at any rate it is no longer of immediate importance, so the Committee of Deputies has decided to suspend the Group -- to the regret of the Central European delegations which, as new ECMT members, saw their participation in this Group as a particularly advantageous way of grasping certain general transport policy problems and their possible solutions within a market economy system.

In the light of these reactions, it might be asked whether this Group's terms of reference could be changed to enable it to examine the problems arising in connection with the integration of the new Member countries in the road sector, more particularly as regards the conditions governing market, unless this matter is to be dealt with within the framework of the specific body proposed under B.1 above.

Moreover, there is no denying the fact that there will be one important sphere in which future European Community legislation will probably determine the line to be taken by work in ECMT, namely the taxes and charges specific to road transport, a subject that is extremely complicated for many reasons (particularly with regard to Ministerial powers, basic concepts and technical applications) and for which so far no overall satisfactory solution has been found at European level.

As the European Communities move towards a system of taxes and charges more in keeping with the major policy objectives of Community transport policy (closer harmonization of the rules applicable to competition between the various countries' road hauliers and between the various transport modes, adequate coverage of infrastructure costs by the various categories of users, allocation of revenues among countries on the basis of the services provided within their respective territories, allowance for external effects, particularly as regards the environment, regulation of demand, etc.), the ECMT's institutional structures will probably be used -- as was the case for technical and social harmonization -- to promote as far as possible the extension of the provisions concerned in order to avoid having a transport system in Europe which operates at two or more levels.

Depending on future events, fiscal harmonization could therefore become an important field for policy action by the ECMT Council of Ministers, and it is difficult to see how decisions in this area could be prepared without resorting to a group of specialists.

Meetings: *to be decided in the light of developments.*

12. Multilateral quota

At its June 1992 Session the Council of Ministers laid down the following guidelines for the future of the multilateral quota system:

-- consider the scope for a significant increase in the multilateral quota and submit proposals on this subject as soon as possible;

-- consider the extension of the "green lorry" system to countries that have not yet adopted it; for this purpose the procedures for implementing this system will have to be monitored or even improved; this aspect depends on the work under way on the standards contributing to

environmental protection and is thus not exclusively a quota issue, but it also depends on actual operational difficulties, i.e. particularly in Alpine transit through Austria;

-- as from the end of 1992, consider how and to what extent the seven new Member countries can participate in the ECMT quota;

-- examine the ways in which the establishment of the European Economic Area (EEA) affects the operation of the system.

In addition, it will be up to the Group to propose ways of improving, where necessary, the procedures for implementing the system. One example is the poor statistical information obtained from log-books, as was noted when the number of transit trips through Austria in 1991 had to be calculated for the 13 Member countries.

Meetings: *at most two one-day meetings a year.*

13. Road Safety

In accordance with its terms of reference, the Road Safety Committee -- which might become the Road Safety Group -- promotes, develops and helps to implement practical measures to reduce the number of road accidents and accident casualties.

Accordingly, the Committee's work has sometimes concerned topical issues (use of the seat belt, means of influencing human behaviour), and sometimes particularly vulnerable target groups (children, cyclists, the elderly). This body therefore intends to continue its work by improving and supplementing the measures already taken, providing new leads and emphasizing action likely to influence the way people drive, which is responsible for almost 90 per cent of serious accidents.

Its main activities in the next three years will be to:

-- Complete work on:

. the role of lorries in road accidents;
. interaction between drink, medicines and drugs.

-- Determine new priority activities of interest to all Member countries. The following may be listed at present:

. accidents in fog;
. accidents in built-up areas;
. training of new drivers;
. harmonization of motorway speed limits.

-- Review the relevant studies conducted by OECD in its road research programme and draw conclusions from them with a view to appropriate policy action: research on the marketing of road safety information, and the conclusions to two OECD conferences -- one on penalties and rewards, and the other on car insurance and the prevention of road accidents.

-- Prepare for the particularly important Joint ECMT/Council of Europe Conference on road safety education in schools, which follows up the three preceding conferences held respectively in 1963, 1971 and 1980 and was approved in principle at the start of this year. The reasons for holding a new conference, the earlier conferences, the objectives and practical arrangements are discussed in more detail in CEMT/CS(91)33. Here we shall simply say that the purpose of this conference is to promote road safety training in schools in the new ECMT Member countries and provide for exchanges of information and experience with the experts of these countries.

   The Conference should last about two and a half days, and will be held in Strasbourg at the invitation of the Council of Europe in late 1993 or early 1994.

Meetings: *two two-day sessions a year.*

14. Road Traffic, Signs and Signals

The Committee for Road Traffic, Signs and Signals has for many years carried out extremely useful work by using ECMT as a forum for initiating action to harmonize the rules in these areas at European level and, in many cases, by making regular proposals for amendments to the International Conventions administered by the UN/ECE, even at world level.

The greater part of this work has now been completed. As this is also a legal and technical activity, moreover, it may be asked if the ECMT's policy forum, which has been extremely useful in the past, is still necessary now that the face of Europe has changed.

It is therefore proposed that the Committee should become an ad hoc Group, be instructed to complete the work in hand -- owing to the Committee's two annual sessions, some of it has been going on for some time -- and provide for it to pursue its activities only when issues requiring policy action are to be dealt with.

In adopting this approach over the next three years, the Group should complete its work on:

-- Consistency between road signs and signals and road infrastructure. This topic, which had been selected following a Resolution adopted by the Ministers in 1988, has been studied mainly by the Netherlands Delegation, and a report on the subject could be submitted during the chairmanship of the Netherlands in 1993.

-- Problems in connection with light two-wheelers, including that of contra-flow cycle traffic raised by the Luxemburg Minister at the Athens Session. This project could be completed at the end of 1993 or in spring 1994.

There have been specific requests that consideration be given to other matters, particularly:

-- Regulations for mini-cars and the definition of "moped".

-- The harmonization of variable-message signs, both on board and outside vehicles, and their impact on road safety. This topic could be dealt with by an ah hoc sub-group working jointly with the TCT, road safety and road traffic, signs and signals groups.

Meetings: *Two 1 1/2 day sessions in 1993; number to be reduced subsequently.*

15. Statistics

-- Joint EUROSTAT/ECMT/UN/ECE glossary.

In collaboration with EUROSTAT and the United Nations Economic Commission for Europe, the main task of the Group of Statisticians will be to complete a transport statistics glossary common to the three organisations.

In February 1991 an inter-Secretariat transport statistics working group was set up by EUROSTAT, ECMT and the United Nations Economic Commission for Europe. This group's work, which is submitted for approval to the ECMT's Group of Statisticians, is intended to harmonize and, as far as possible, standardize transport statistics at international level so as to improve the comparability of the data published by the three organisations concerned and reduce the workload of national statistical offices when they have to provide data.

Initially the inter-Secretariat Group's objective was to produce joint and standardized definitions for the terms used in transport statistics. The glossary that has been prepared in this way should be completed by **mid-1993** and then be finally approved by the Group of Statisticians. This glossary will be issued as a joint EUROSTAT/ECMT/UN/ECE publication.

-- Harmonization of the three intergovernmental Organisations' questionnaires.

The purpose of this operation is in the next three years to harmonize as closely as possible the questionnaires sent out by ECMT, EUROSTAT and UN/ECE to their Member countries so as to facilitate data collection at national and international level.

Ultimately it intended to set up a **harmonized database** for transport statistics in the three organisations concerned. The specific arrangements for setting up and operating this joint system as well as the procedure for disseminating the data contained in such a base will then require in-depth examination by the Group of Statisticians.

-- Improvement of ECMT's statistical publications.

The Group of Statisticians will continue to improve the content and form of ECMT's statistical publications (Statistical Trends in Transport and Trends in the Transport Sector). In particular, it will be considering how the data for ECMT's new Member countries can be incorporated in this publication.

Meetings: *one day a year (Group of Statisticians).*

Notes

1. ESA-IRS: European Space Agency -- Information Retrieval System.

2. CDS/ISIS: Information storage and retrieval system designed for the computerised management of structured and non-digital databases (copyright UNESCO, 1988).

3. TRIS: Transportation Research Information Service (National Academy of Sciences, Washington, DC).

4. IRRD: International Road Research Documentation.

SUPPLEMENTARY REPORT ON THE DEVELOPMENTS OF THE DIMENSIONS OF LOADING UNITS

[CEMT/CM(92)3 FINAL]

At its Session held on 21 November 1991, the ECMT Council of Ministers adopted a Resolution on the dimensions of the loading units (containers and swap bodies) used in combined transport.

The main object of this resolution was to recommend that, for reference purposes, the following dimensions:

a) Containers:

-- length:	7.45 metres (24'5");
-- width:	2.5 metres (8'2");
-- height:	2.59 metres (8'6");

b) Swap bodies:

-- length:	7.45 metres (24'5");
-- width:	2.5 metres (8'2");
-- height:	2.67 metres (8'9");

corresponding to the present characteristics, constraints and requirements of the three land-based transport modes in Europe, be taken as a basis, especially within the framework of future negotiations for the standardisation of the dimensions of loading units, which should include maritime transport as a whole (short distances and intercontinental).

On adopting this Resolution, the Council of Ministers had requested the Committee of Deputies to pursue its work:

-- first, with a view to submitting a further draft Resolution concerning containers of over 13.60 metres (44'7") in length, problems of interface between maritime and land transport, and the loading of pallets;

-- second, by initiating studies on any implications of the use of loading units more than 2.5 metres wide (8'2"), especially on the questions relating to railway tunnel gauges and those concerning rail/road transfer.

The aim of this note is to follow up the 74th Ministerial Session by providing further information to enable the ECMT to make the fullest possible contribution to the Seminar which is to be held by the United Nations Economic Commission for Europe early in September 1992.

The results of studies conducted in connection with COST 315, consultations with maritime transport representatives and contributions by the various countries taking part in the Group's work have been used as a basis for this purpose.

Issues concerning loading unit dimensions and inland transport

Loading units (containers and swap bodies) must be wide enough to take two standard 1.2 metres (4') unit loads; this width of 1.2 metres meets the needs of industry (production standards) and shippers. With the clearance required (3 x 2 centimetres or 3 x less than 1"), the minimum internal width of loading units, especially containers, is 2.46 metres (8'1"). This means that an external width of 2.5 metres (8'2") would be sufficient only for non temperature controlled swap-bodies but the extra wall thickness required for containers would call for a width of 2.55 metres (8'4").

It is very difficult to assess the volume of palletised or unitised transport accurately, since there are no reliable statistics on the subject. Surveys carried out within the limited time available to the Group showed that this volume should not be overestimated (percentages of 10 to 15 per cent for maritime transport are cited). Moreover, particularly considering the basic advantages of the pallet technique, it should rather be compatible with the other constraints than be seen as a determining factor.

The needs of both industry (importance of standard loads) and consignors (maximum use of loading unit capacity) should be met, as effectively as possible. To do so, a width of 2.50 metres (8'2"), particularly where containers are concerned is generally regarded as insufficient (see Conclusions), even without the pallet being wholly the decisive factor. This assessment is therefore equally valid where only standardized loading units are involved.

At present, a maximum width of 2.60 metres (8'6") is generally allowed for the carriage by road of controlled-temperature loading units.

Although improvements in loading unit construction technology and materials can be expected to lead to a reduction in wall thickness, environmental concerns -- particularly the exclusion of freon-based products -- may lead in the short term to bulkier materials having to be used. This is likely to have a more significant impact on maritime transport where the longer journey times give rise to more stringent temperature requirements.

Given the need to ensure road safety and the constraints imposed by infrastructure gauge requirements, the use of temperature controlled units -- which represent a small proportion of present road traffic -- cannot alone justify a general increase in width to 2.60 metres (8'6") for all units.

The further surveys conducted by the Group show that the heights of 2.59 metres or 8'6" (containers) and 2.67 metres or 8'9" (swap bodies) are hardly a problem.

Greater heights are technically speaking acceptable but require specialised transport equipment to meet existing legislation and infrastructure constraints. Development in this direction will depend on the needs of industry and shippers, but in the present market, it is unlikely that the widespread use of such specialised equipment will be economic.

The width/height combination of loading units must be carefully examined in the light of the dimensional constraints imposed by existing infrastructure, particularly in the case of rail.

Since a number of countries are opposed to a standard width of 2.6 metres (8'6") for reasons concerning the safety and flow of road traffic, a combination of a width of 2.6 metres (8'6") and a height of 2.90 metres (9'6") is not acceptable for rail. This is the case today in ECMT countries as a whole; This is likely to remain the case in most ECMT countries in the medium term given the existing rail infrastructure and the heavy investment required to increase the loading gauge.

It should be noted, however, that UIC has undertaken design studies on a rail wagon which would make it possible to carry higher and wider loading units with rail gauge A.

The length of loading units is directly connected with transport equipment standards. In rail transport, the basic **container** standard is 20 ft (6.06 metres) and 40 ft (12.19 metres). Loading density is at a maximum with these dimensions. The transport of longer containers is of course feasible, but it means a decrease in loading density and therefore in profitability.

On the basis of permissible road vehicle dimensions, it is possible to authorise units 7.82 metres (25'8") long for a road train and 13.6 metres (44'7") for an articulated vehicle. At present no single length exists, particularly for containers, which is not only satisfactory for road haulage -- owing to the existence of road trains and articulated vehicles -- but also for rail.

Units over 13.60 metres (44'7") long are unlikely to be adopted because they are incompatible with current vehicle dimensions and some less recent rail wagons. No future significant increase in vehicle lengths is likely.

Conclusion

By definition, inland combined transport involves more than one operator. Each of them has his concerns and quite naturally wishes to obtain as much business as he can.

A number of conflicts of interest as well as constraints therefore have to be borne in mind, such as:

- -- an intramodal conflict in road transport between the road train and the articulated vehicle;
- -- an intermodal conflict between road and rail;
- -- the special situation of waterways for which larger dimensions than those listed in the Resolution of 21 November 1991 would cause real problems;
- -- existing infrastructure and transport equipment constraints;
- -- road traffic safety and flow constraints.

The following two factors must also be taken into account:

- -- Industry needs

  Industry has set up many production lines to turn out standard unit loads. While this may also be the case for other dimensions, the loading unit dimensions listed in the Resolution of 21 November 1991 will be generally compatible with those of industry's unit loads.

-- Needs resulting from transhipment and loading operations

It should be stressed here that land transport equipment and handling systems are equipped with standard attachment points (or corner fittings) complying with ISO I standards (i.e.: lengths, 6.06 or 12.19 metres (20' or 40'); width: 2.43 metres or 8').

An increase in the number of these attachment points due to the increase in the number of loading units with different widths and lengths is not desirable and is moreover improbable since transport equipment and handling devices complying with these ISO I standards will exist for a long time to come.

With the regard to the future of inland transport, there are accordingly a great many arguments in favour of maximum loading unit dimensions such as those stated in the Resolution of 22 November 1991, due account being taken of the exceptions listed by it. Broadly speaking, very large units can still be carried, but on an exceptional basis and subject to exceptional arrangements and, of course, provided that they meet a need.

Considering the above-mentioned conflicts, constraints and needs, units 20 ft (6.06 metres), 24 ft 5 inches (7.45 metres), and 40 ft (12.19 metres) long seem to give the best compromise. It is therefore hardly likely that loading units over 40 ft (12.19 metres) in length will come into general use. The market may, however, justify the use of such units in cases that will probably remain quite special. In any case, the use of large containers must remain compatible with current authorised weight standards.

As regards the facilitation of loading and transhipment operations, it seems that a width of 2.5 metres (8'2") may be barely sufficient. The future possibility should not be ruled out of finding an intermediate solution between 2.5 (8'2") and 2.55 metres (8'4"), a width of 2.55 metres (8'4") being in any case, a maximum, which sometimes causes some problems in particular for countries of the Alpine area. The width of 2.6 metres (8'6") can still be authorised for controlled-temperature loading units owing to their marginal use.

Issues concerning the interface between the maritime/port side and inland transport

The inclusion of the maritime/port side raises the two issues of costly investment in port equipment and ships with a medium to long service life, and profitability imperatives requiring minimum stays in port.

The shipping world is not unanimous about the introduction of new container dimensions, i.e. dimensions other than those defined by ISO I standards (20 or 40 ft long, 8 ft wide or 6.06 metres or 12.19 metres long, 2.43 metres wide).

But it is clear that the adoption of new standards would have a catastrophic impact on the operation of existing ships and a relatively long transition period would be required before they could be adopted.

There are, however, no sound grounds for a need for greater dimensions, especially in terms of length (45 ft, 48 ft, 49 ft, and even 53 ft, i.e. 13.71 metres, 14.63 metres, 14.93 metres and even 16.15 metres). This links up with the concerns of inland transport operators.

From a strictly commercial viewpoint, moreover, port terminal operators consider that the defence of the ISO I standard, for which most of them are equipped, will be to the benefit of their maritime customers in terms of port changes and productivity.

These operators are not, however, against the idea of obtaining a profitable traffic in the form of outsize containers, in line with the law of supply and demand: the processing of such containers increases handling time on average by a factor of 3, which results in a substantial rise in charges.

Even if in the future some ships could be loaded to the maximum by means of large containers and if these large containers (over 40' or 12.19 metres long) were used more intensively, the resulting transport operations would have to be confined to port-to-port traffic. There would certainly be no justification for trying to turn it into door-to-door traffic, because of the incompatibility with inland transport infrastructure. In some cases, there could however be an economic interest for some types of traffic or the transport of certain freight.

It could be an important subject to be treated at the forthcoming UN/ECE Seminar and its implications could be eventually be studied in detail by the Conference.

REPORT ON ECMT ACTIVITIES CONCERNING TRANSPORT, COMPUTERS AND TELECOMMUNICATIONS

[CEMT/CM(92)11]

This report has been drawn up in compliance with explicit instructions from the Council of Ministers as set out in Resolutions CEMT/CM(90)10 and CEMT/CM(91)22 on transport, computers and telecommunications whereby the Council requested the Committee of Deputies:

-- to monitor on an on-going basis the developments with respect to computer and telecommunications applications in the transport sector and to report back to it at regular intervals in this connection [see the **first part** of this report];

-- to promote studies on the legal and administrative problems arising with respect to these applications; [the **second part** of this report takes stock of the work in progress which should be completed for the Council's November 1992 Session].

In the documents that it has adopted, the Council also calls for work to be done in various areas relating to the implementation of telematics systems and, accordingly, the ad hoc Group on Transport, Computers and Telecommunications intends in the coming months to examine a number of issues which are listed in the **third part** of this report. Some of these issues are in direct line with activities already pursued by the Group, while others clearly involve new approaches and call for decisions by the Council as to the value of studying them in ECMT, decisions that will determine whether or not they are to be included in the Conference's next three-year programme of work.

I. Monitoring experiments and work in hand

Since report CEMT/CM(91)22 was submitted to the Council in November 1991 together with the presentation of activities carried out under the PROMETHEUS programme, there have been two important developments:

-- the establishment of ERTICO, a semi-public, semi-private organisation set up to facilitate the co-ordinated introduction in Europe of advanced transport telematics systems and bring together all the parties interested in this work;

-- the establishment of the DRIVE II programme within the European Communities.

The following paragraphs take stock of these two initiatives and set out certain lines of action for ECMT in these spheres.

A) Monitoring ERTICO

At the 74th Session of the Council of Ministers the representatives of the European automotive industry proposed that ECMT should promote the establishment of a public/private organisation for the purpose of bringing together representatives of the automotive industry, the electronics sector, road users organisations and government transport departments with a view to ensuring the efficient introduction of road transport informatics systems in Europe.

The Council of Ministers welcomed this proposal and said that it would like to see a body set up for co-operation in this respect.

This has been accomplished with the setting up of ERTICO (European Road Transport Telematics Implementation Co-ordination Organisation), a semi-public, semi-private organisation which seeks to facilitate the co-ordinated introduction in Europe of advanced transport telematics systems and bring together all the parties interested in this work (industry, infrastructure managers, public authorities, users). A number of governmental transport authorities in various countries are currently associated with the activities of this new body.

In view of its aims, two points need to be made about this organisation at the outset:

-- ERTICO's work is of very special interest to ECMT since it may have implications for the shaping of transport policy as regards, for example, strategic planning for the establishment of advanced telematics systems in Europe, the promotion of common specifications and regulations, funding arrangements, etc.;

-- ERTICO's work should not be confined solely to applications of advanced telematics systems to road traffic but should also relate to systems that can step up the efficiency of public transport and interfaces between different modes of transport, especially those with public transport.

B) Monitoring of DRIVE II

At the end of 1991 the Commission of the European Communities drew up the DRIVE II programme consisting of 56 projects which may be grouped in seven fields differing in terms of the number of projects covered as follows:

a) demand management	6 projects
b) travel and traffic information	11 projects
c) integrated urban traffic management	8 projects
d) integrated interurban traffic management	12 projects
e) driver assistance	10 projects
f) freight and fleet management	5 projects
g) public transport management	3 projects

One final project is to be added to this list concerning the co-ordination of the DRIVE programme itself.

These projects have a great many participating organisations (some 500) from the following 16 countries:

Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and the United Kingdom from the EEC; and

Austria, Finland, Norway, Sweden and Switzerland from EFTA.

The participating organisations include:

-- ministries;
-- local and especially municipal authorities;
-- motorway operators;
-- public transport operators;
-- public and private research institutes;
-- universities;
-- consultancy firms;
-- automobile, transport and civil engineering industries;
-- radio broadcasting and telecommunications services;
-- telecommunications industries.

The participants include all concerned with road transport applications of telematics and telecommunications.

These projects may be broken down into three main categories:

-- pilot projects of an experimental nature which are designed to implement and assess various applications at urban and interurban sites;

-- projects designed to monitor research and development activities;

-- horizontal projects designed to promote key aspects of applications and their specifications.

Among the pilot projects, attention may be drawn to:

. 12 projects relating to inter-urban motorway and highway corridors offering scope for various combinations of informatics and telematics applications:

-- on a network in Portugal (PORTICO project);
-- on a Mediterranean-Lyon-Stuttgart corridor (MELYSSA);
-- on the Junquera-Séville corridor in Spain (ARTIS);
-- on the Paris-London corridor (PLEIADES);
-- on the Rhine-Main corridor, with cellular radio-telephone (GSM) applications (RHAPIT);
-- on the Flanders-Wallonia-North Rhine Westphalia corridor (EUROTRIANGLE);
-- on trial sites in Italy, Spain and France, with Radio Data System Traffic Message Channel (RDS-TMC) and Variable Message Signs (VMS) applications (GEMINI);
-- on road networks in Scotland and Denmark (QUO VADIS);
-- on a motorway network in the Netherlands with traffic monitoring application (GERDIEN);
-- on test sites in the Netherlands and Wales with road condition and weather monitoring applications (ROSES);
-- on the Rhine-corridor (Netherlands and Germany) and in Ile-de-France, with RDS-TMC applications (ACCEPT);

-- on a French-Italian-Greek corridor, with automatic debiting applications (ADS).

. About 7 projects relating to applications in urban areas, more particularly:

-- to co-ordinate traffic management with improvements to the environment by means of the projects:

. QUARTET (Athens, Birmingham, Stuttgart, Turin);
. GAUDI (Barcelona, Bologna, Dublin, Marseille, Trondheim);
. PRIMAVERA (Leeds, Turin);
. EUROCOR (Paris, Amsterdam).

-- to develop travel and traffic information systems with the projects:

. LLAMD (London, Lyon, Amsterdam, Munich and Dublin);
. SCOPE (Southampton, Cologne, Piraeus);
. CITIES (Paris, Brussels, Gothenburg).

. 3 projects dealing specifically with public transport:

-- PHOEBUS: vehicle scheduling and control systems and data bases (Brussels, Ghent, Westhoek (B), Friesland (NL), Madrid and Paris);

-- EUROBUS: data models and passenger information (Madrid, Marseilles and Thessaloniki);

-- PROMPT: development of priority systems for public transport and emergency vehicles in London, Turin et Gothenburg.

. A project relating to informatics applied to the combined transport of freight on the Munich-Verona route via Brenner (COMBICOM).

. 4 other projects dealing with freight and fleet management; these projects deal notably with:

-- FRAME: control and monitoring of hazardous goods shipments both on land and maritime crossings (Welsh corridor and the crossing to Ireland, remote terminal operation between Netherlands and Greece);

-- CITRA: integrated monitoring and control system to optimise hazardous/dangerous goods transport (Alpine Crossing between Germany, Austria and Italy);

-- METAFORA: mobile data communication and electronic data interchange (11 pilot tests on alternative routes between North-West Europe and Greece);

-- IFMS: open system architecture specification for computer aided and integrated transport (N-S European Motorways, France and Spain, Alpine crossing).

The research and development projects concern among others the various possible telematics techniques for the applications envisaged:

. cellular radio-telephone;
. microwaves;
. variable message signs;
. radio data systems (RDS);
. automatic debiting systems;
. traffic data interchange.

The horizontal projects include among others the following:

-- a project relating to the assessment of improvements in safety by means of telematics applications (HOPES project);

-- a project on the safety of vulnerable road users (VRU-TOO project);

-- a project on problems concerning elderly and disabled drivers (EDDIT project);

-- a project on the harmonisation of roadside and on-board driver information in Europe (HARDIE project);

-- a digital road map project (EDRM2 project).

Topic groups have been set up to improve the flow of information, to prepare common functional specifications and accelerate standardization in the following fields:

-- automatic debiting and smart cards;
-- databases and traffic data interchange;
-- travel and traffic information;
-- man/machine interfaces;
-- hazardous goods monitoring;
-- public transport data models;
-- drive normalised data transmission (DNT);
-- evaluation of pilot projects;
-- commonalities for the integration of traffic control services;
-- IRTE system architecture;
-- fleet management technical specifications.

Around the seven fields mentioned above, Area Meetings will be organized at regular intervals during the DRIVE II Concertation Meetings. The objective of these Area Meetings is to enable individual projects to synchronize their work with other projects having common interest in specific areas. In addition the participants are expected to contribute to the promotion of the strategic objectives of the Areas.

Given the complexity and broad scope of the DRIVE II projects, the programme will certainly be difficult to monitor despite the summary reports that will be made by both the topic groups and area meetings and also on the initiative of the Community's services and ERTICO.

So as to enable ECMT to keep close track of the progress made with the DRIVE II programme, it has been decided (see section III below), for each of the DRIVE II research fields specified according to the classification adopted for the programme, to appoint a delegate within the ad hoc Group on transport, computers and telecommunications -- hereafter referred to as the TCT Group -- who will be required specifically to monitor the DRIVE work in the field concerned, identify the problems calling for a policy response by ECMT and report back regularly to the TCT Group.

On the basis of the information collected in this way, the Council of Ministers can be kept regularly informed of developments with respect to this major research programme. It would therefore be particularly advisable for the delegates appointed by the TCT Group to be able to attend the co-ordinating meetings organised by DRIVE. A request along these lines has moreover already been sent to the services concerned in the Commission of the European Communities. It might be useful for the Council of Ministers to endorse this request.

II. Administrative and legal problems in connection with route guidance/driver information systems

The application of new information technologies in the transport sector gives rise to many administrative and legal questions (issue of operating permits, responsibility/liability, enforcement procedures, confidentiality, safety, funding, etc.).

In order to comply with the Council of Ministers' instructions in Resolution CEMT/CM(90)10, the ad hoc Group on transport, computers and telecommunications conducted a survey in this connection in May 1991. The questionnaire sent out for this purpose was designed primarily to take stock of the situations existing in the different countries, more particularly as regards problems relating to traffic, vehicles, privacy and the content of information.

The information compiled was to be used as a basis for a report that might be submitted to the Council's November 1992 Session to draw the attention of Ministers to existing inadequacies from a legal standpoint and show the need to establish regulations to clarify the relationships between the public authorities and private sector.

The replies already received to the questionnaire show a convergence of views on some questions and differ on others, but especially a difference of approach that is likely to make it more difficult to implement the projects currently under consideration. It is this aspect that needs to be examined in more depth in order to identify clearly the legal impediments to the development of road information and driver guidance systems.

An analysis of the replies can shed light on the scale of the difficulties involved in implementing road information and guidance systems, especially where the replies showed that the questions had been interpreted in different ways; it can also help to indicate the type of action that needs to be taken to resolve the differences.

A) Analysis of the replies

The replies show that the roles of central government, local authorities and specialised authorities differ from one country to the next; they also show that the relationship between the authorities and

the bodies that disseminate information or the future operators of guidance systems varies across countries.

I -- Breakdown of responsibilities among the authorities

While road traffic regulations and related activities are the responsibility of national-level government in all countries, in at least four countries (Australia, Belgium, Germany and Italy) regional (or state) governments also have a significant role.

In nine countries road traffic regulations are implemented jointly by departments of transport and the police. In two of these countries a military force (gendarmerie) is also involved. In Italy they are implemented by the Ministry of Public Works, in Denmark by the Ministry of Justice. In six countries local authorities have extensive powers. In seven countries local authorities can adapt road traffic regulations in any part of the country; in two countries they can adapt them only in urban areas.

A similar allocation of roles exists with respect to the compiling of data on traffic and the authorisation of the use of roadsides. These functions are usually performed by the highway authority with the participation of the police. The data collected by local governments and highway authorities are not always centralised by central government.

On-board equipment is regulated by the government, but the government department responsible varies from one country to another -- in some it is the department of transport, in others the PTT, the ministry of economic affairs or justice. However, the replies do not always allow the various types of equipment to be distinguished.

Lastly, nine now have legislation that specifically addresses the relationship between information technology and the respect of personal freedoms, and the others are in the process of drawing up such legislation.

The situation is similar with regard to the possibility of disseminating data and of granting concessions to collect them. Although the replies are incomplete, they do show that the number of countries in which data may be disseminated exceeds the number of countries in which concessions to compile them are granted. Only four countries (Italy, Germany, Switzerland and the United Kingdom) have passed legislation dealing specifically with the exchange and dissemination of road information.

II -- Links between the authorities and private operators

The question concerning the concession of traffic-related services to private operators was interpreted in different ways. The replies seldom relate to road information as such but to parking facilities and service areas. Of the 11 countries that replied to the question on whether the authorities checked the content of contracts, seven said that they did. However, it seems that only the United Kingdom and Switzerland check the content of messages. Germany vets the parties to contracts, while the other countries merely check that contracts comply with the administrative rules that apply to public contracts in general. Switzerland has drawn up standard contracts.

The countries' positions were closer with respect to freedom of access to the road information compiled by public services. As a rule, there is free access. However, only half of the countries think that they will be able to sell such information, and then only at a low price.

Only three countries -- Belgium, France and Norway -- of the 11 countries that replied to the question on whether data held in files under personal names could be consulted by private firms, said that they did not allow it.

Only a few countries regulate the content of information. Most prefer recourse to informal arrangements. The content of information is usually governed by regulation rather than by contract.

B) An additional study

Analysis of the replies shows that the representatives of ministries of transport had difficulty completing the questionnaire. To help them to translate into practice the statements of principle expressed in their replies, a further questionnaire was sent to them in February 1992 in the form of a case study sufficiently comprehensive to cover all the parties concerned by road information systems and their difficulties. Two examples were selected for this purpose: the implementation of either a stand-alone system using information transmitted via RDS-TMC or a dual mode route guidance system (DMRG) in a built-up area administered by several local authorities and comprising roads managed by other authorities (départements, regions or counties), national highways and bypasses, and traversed by motorways operated as concessions.

The simulation should make it possible to show the various channels of information (radio, on-board information systems, PMV, beacons), the authorities responsible for the roads and for policing, the potential operators of information systems (radio stations for the general listener or specialised radio stations, promoters of guidance systems) and the various types of traffic (car, lorry and public transport).

It is very likely that the simulation will show that it is no longer possible to rely on informal arrangements, as some people would like to do. Arrangements which might still be satisfactory for radio broadcasts to the general listener will cease to be so with the advent of specialised operators compiling all or part of the information that they disseminate.

C) Possible solutions

Analysis of the replies to the survey carried out in 1991 shows two main types of legal and administrative impediment to the introduction of Road Transport Informatics (RTI) systems.

The first is the fact that the powers of the government departments with direct or indirect responsibility for road traffic or information are fragmented or overlap. However, in most cases no major legislative amendments would be needed; it would suffice that national-level authorities co-operate on drawing up specific regulations wherever they were necessary.

The first useful step would be for each country to set up a streamlined inter-ministerial structure comprising all the parties involved. It was probably the absence of such a structure that made it difficult for some countries to answer the questionnaire.

The second type of impediment is more serious. Laws and regulations, and even national constitutions, may have to be amended since it concerns the division of powers between governments, federal entities, regions and local authorities, not to mention specialised agencies. Some countries such as the United Kingdom have brought in legislation to deal with the problem but in other countries this will not always be possible for both constitutional and political reasons. The proposed case study can help to identify more clearly who does what.

Contractual agreements among the authorities can offer a way out of an complex legal situation. The most important thing is that private operators should know with whom they must conclude contracts, that their rights and obligations are comparable throughout the country, and that an authority is not able to call into question an existing system. This can be achieved either within a formal legal framework or by means of contractual arrangements.

One particular problem causes a lot of difficulty in a number of countries -- how to deal with offences relating to automatic payment systems, such as remote automated toll debiting. The penalties provided for by criminal law are often quite inadequate in relation to the sums involved, and widespread fraud can thus result. The countries concerned should study closely possible ways of making these systems credible.

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Notwithstanding the profound differences that exist between systems of traffic administration in the various countries, it would however seem that a draft Resolution could be submitted to the Council of Ministers at a later date, its aim being to enable drivers to obtain traffic information and route guidance over a wide area, probably the whole of Europe, by means of technically compatible systems whose messages would also be compatible -- irrespective of the mode of transport -- and easy to understand by the user regardless of the language employed.

Given the impact that road information disseminated by operators has on traffic management and safety, the draft Resolution might state that the authorities are to be responsible for checking the quality of the services provided and for ensuring that the information for users is consistent.

III. Future activities

Following the indications given at the Council of Ministers' Session on 21 November 1991, the TCT Group intends to carry out work in the coming months in a number of fields relating to the introduction of telematics systems in the transport sector in Europe. Some of this work is in direct line with activities already pursued by the Group and is in compliance with specific instructions issued earlier by the Council of Ministers, while other studies relate to issues that have not yet been dealt with by ECMT, so it is for the Council to decide whether they are to be included in the Conference's next three-year programme of work.

A) Pursuance of work in hand

1. Monitoring the DRIVE II and PROMETHEUS programmes

In order to ensure that the work undertaken under the **DRIVE II** programme is monitored as efficiently as possible, the TCT Group would like to:

-- examine, on the basis of a submission by the Commission of the European Communities, the final programme for DRIVE II so as to make any observations that may be necessary with respect to policy issues (for example, concerning the consideration to be given to public transport);

-- ascertain the progress made with the programme on the basis of submissions by the Commission of the European Communities (based on the DRIVE II annual reports) or by the countries concerned;

-- on the initiative of the Commission of the European Communities or the countries concerned, participate in a number of significant field trials;

-- examine the final results of experiments developed under DRIVE II in order to draw attention to any policy implications.

Accordingly, the group decided, for each of the DRIVE II research fields specified according to the classification adopted for the programme, to appoint a delegate within the Group who would be required specifically to monitor the DRIVE work in the field concerned, identify the problems calling for a policy response by ECMT and report back regularly to the TCT Group. It would be desirable for these different rapporteurs to be able to attend the co-ordinating meetings organised by DRIVE.

As regards co-operation with the **PROMETHEUS** programme, the TCT Group proposes that one of the persons in charge of this programme be invited to its meetings when subjects of common interest are on the agenda and also to meetings of its working bodies, more particularly the Sub-Group on road/vehicle communications. In consultation with the representative appointed for this purpose by PROMETHEUS, the Group will decide on ways and means of setting up a joint working structure.

One of the first topics that might call for joint studies is the radio-telephone which, like most telematics applications in the road transport sector, essentially requires co-ordination at international level between Ministries of Transport and Ministries of Communications, so documentation is to be prepared by the TCT Group with a view to co-ordinating the work of ECMT and CEPT.

On these bases the TCT Group will draw up a report each year for the ECMT Ministers with a view to proposing the policy and administrative measures needed to ensure the development of the applications emerging from the DRIVE II and PROMETHEUS R&D programmes.

In accordance with the decisions taken by the Council of Ministers, there will be particularly close monitoring of issues relating to:

-- safety aspects of on-board equipment;
-- the consideration given to public transport;
-- implementation of the Resolution on the RDS-TMC message system and its extension to urban areas, and also consideration of other techniques;

-- progress with the standardization of these applications at European level on the basis of the work done by the CEN, CENELEC and ETSI;
-- the organisation of traffic data interchange among the various operators.

Furthermore, in order to ensure accurate monitoring -- as requested by the Council of Ministers -- of the studies and research in hand with respect to transport, computers and telecommunications, the TCT Group (see I.A above) plans an exchange of observers between ECMT and **ERTICO,** which should ensure better knowledge of the work being done by that body.

2. *Further consideration of administrative and legal problems in connection with route guidance/driver information systems*

A questionnaire provided the basis for drawing up an initial list of the administrative and legal problems that might be experienced by a public or private operator of such systems (see Section II above).

Further light will be thrown on the matter by means of a case study based on a typical project under the DRIVE II programme so that all Member countries will be able to see the problems experienced and possible solutions by examining a specific project which calls for both the use of a number of applications corresponding to different techniques and co-operation among different local and governmental authorities.

A report and draft Resolution are to be submitted to the November 1992 Council of Ministers.

3. *Safety aspects of on-board equipment*

Equipment designed to assist the car driver changes the relations between driver and vehicle and may influence behaviour and driving responsibilities in a way that is prejudicial to safety in some circumstances. Consideration is already being given to this matter by a number of Member countries and also under a project in the DRIVE II programme since it is of concern to governments and those responsible for safety and the relevant regulations.

Current work will continue in the TCT ad hoc Group with a view to reaching a consensus on any regulations or codes of good practice that may have to be established at international level.

4. *Road/vehicle communications*

The Sub-Group on Road/vehicle communications intends to examine the following matters during the coming months:

-- Follow-up of Resolution CEMT/CM(91)12 on standards for traffic messages broadcast using the RDS traffic message channel: this Resolution makes provision for the drawing up of a report to inform the Council of Ministers of the results of field trials and the drawing up of a definitive coding system.

-- Location coding: in view of the number of studies in hand, it would appear to be urgent to have an international coding framework acceptable to all. Within the context of work in the Netherlands, an initial set of codes should be ready within a few months. The sub-group would like to begin to assess these codes.

-- Urban coding: agreement should be reached on the types of information to be included in an urban coding scheme. Route guidance, parking and public transport are already seen as categories for urban messages. The sub-group might examine the findings of the work done in this connection under the DRIVE programme and try to determine what the public transport requirements are in this connection.

The sub-group would also like to begin certain studies on the exchange of information between traffic centres. In an initial phase, work might be confined to compiling information and defining the problems arising. More particularly, close monitoring of the INTERCHANGE project under DRIVE II would be called for.

B) New activities

1. Increasing co-operation among transport operators

The DRIVE II programme seeks to ensure the necessary interfaces between private and public transport with respect to overall management of transport supply and demand, integrated travel information and more efficient management of road traffic.

This approach will not suffice unless public transport operators also draw up integrated programmes catering for their own needs as regards management and information and co-ordinate these activities with those planned in the context of DRIVE II.

Accordingly, it is proposed that the TCT Group should ask the International Organisations concerned (ECAC, UIC, UITP) to draw up specific programmes which can be co-ordinated with that of DRIVE II, since that is the only way of developing intermodal supply providing high quality service, while at the same time reducing congestion on highways or in urban areas carrying the heaviest traffic and improving the environment both locally and in general.

2. The establishment of guidelines for the co-ordinated development of applications relating to information for travellers, road traffic information and route guidance

The final aim is to enable the traveller, more particularly the driver of the private car, commercial vehicle or motorcoach, to receive consistent, useful and up-to-date information along the whole or major part of his route. In particular, this calls for:

-- compatibility of operation among the various modes of transport;
-- continuity along the whole of the main routes, including in and around major urban areas, and therefore effective co-operation among operators;
-- a specified level of quality of service that is comparable from one country to the next;
-- the dissemination of information in accordance with European standards;
-- compatibility of operation among the various techniques that may be used;
-- co-ordinated equipment on the routes.

In the absence of a master plan for such applications -- which would seem to be utopian -- the TCT Group could submit to the Council of Ministers some guidelines whereby the above objectives may be attained gradually in accordance with a given timetable, guidelines established in collaboration with the Commission of the European Communities.

FURTHER ACTION TO BE TAKEN

The preceding report invites the Council of Ministers:

-- to decide on ways and means by which the ECMT might monitor the main research programmes relating to telematics applications in the transport sector in Europe;

-- to establish guidelines for future ECMT activities in the sphere of transport, computers and telecommunications.

1. Monitoring of research programmes

Close co-operation has now been established between the ECMT and both the Commission of the European Communities and the European automotive industry with a view to monitoring the DRIVE and PROMETHEUS programmes, co-operation that has essentially provided a number of opportunities for the ECMT Council of Ministers to be informed of problems arising in connection with technological developments which call for a rapid response from policymakers at European level.

At its last session the Council was notified of the establishment of ERTICO, a semi-public, semi-private organisation which seeks to bring together representatives of the automotive industry, electronics sector, users' organisations, transport authorities and the international bodies concerned in this field with a view to ensuring the effective and co-ordinated introduction of road transport informatics systems in Europe.

On that occasion, the Council of Ministers was asked to give its support to this initiative. In view of the evident interest to ECMT of some of the work done by ERTICO and the concern expressed by many policymakers that consideration be given to public transport in the various research programmes now being carried out with respect to telematics applications, it is proposed that the Council should give a positive reply to this request by instructing the Committee of Deputies to establish the precise terms and conditions on which ECMT might be associated with ERTICO's work, and report back to it on this matter in due course.

2. ECMT's future activities

In its Resolutions CEMT/CM(90)10 and CEMT/CM(91)22 the Council of Ministers has already specified the following fields in which it would like work done by ECMT:

-- monitoring of the research programmes in hand in Europe;

-- examination of the administrative and legal problems in connection with route guidance/driver information systems;

-- measures to be taken to ensure that the new types of equipment do not make driving less safe;

-- implementation of Resolution CEMT/CM(91)12 on road/vehicle communications using the RDS-TMC system.

Two matters of concern have however already emerged from the examination of both the objectives and initial findings of the current research programmes in Europe, namely:

-- the inadequate consideration given to public transport since those responsible for such transport have so far shown little interest in the development of specific research programmes relating to telematics applications;

-- the risk of travellers finding on their journeys a great many incompatible route guidance/driver information systems which disseminate information of very varied quality and use different standards and techniques.

The Council of Ministers is therefore invited to decide whether the ECMT should in future work towards:

-- strengthening co-operation among public transport operators with a view to encouraging them to develop specific research programmes concerning telematics applications catering for their own needs with regard to management or information and which could be co-ordinated with those developed for road transport;

-- establishing guidelines with a view to the co-ordinated development of applications relating to information for travellers, road traffic information and route guidance.

REPORT BY THE COMMITTEE FOR ROAD TRAFFIC, SIGNS AND SIGNALS: PRIORITIES

[CEMT/CM(92)5]

1. Introduction

1.1 General observations

From the time the private car was first introduced, considerable attention has always been paid to the question of priorities. While initially simply polite conventions, the rules of priority gradually became legal constraints as the volume of traffic increased so as to ensure the smooth and safe flow of vehicles at intersections in particular.

The capacity of intersections does in fact largely determine the extent to which traffic on the road network remains fluid. Statistics also show that a large proportion of traffic accidents occur at intersections. Lastly, the road user's subjective assessment of whether it is reasonable to apply a particular rule of priority at a particular place is a by no means negligible psychological factor in the process of laying down and enforcing rules of priority.

Obviously, therefore, the question of priority is also dealt with extensively in the 1968 International Conventions of Vienna on Road Traffic and Road Signs and Signals. While the international legal principles relating to priority would seem to be applied without problems in all the countries that have signed these conventions, it is found that, owing to the latitude that the agreements leave for interpretation when incorporating the rules into the domestic legislation of the various countries, considerable differences are seen between one country and another.

There are many examples of such differences: thus, the use of the emergency lane on motorways as an extended acceleration lane is authorised in one country but prohibited by the legislation of others. In one country a driver loses his right of way if he stops, even for safety reasons, before entering an intersection.

In some countries a flashing orange arrow pointing to the right is added to the three-colour traffic lights to authorise a right turn even if the red light requires vehicles proceeding straight ahead to stop.

N.B.: Where this note refers to "priority to the right", it should be understood to mean "priority to the left" for those countries in which traffic proceeds on the left-hand side of the carriageway.

Such difference have to be avoided if international traffic is to be promoted on a safe basis. However, the differences found in European countries with respect to the traffic rules valid on approaching and crossing intersections are not consistent with this aim.

1.2 Background

As early as 1982 the Committee had raised the question of an appraisal of these rules and it initially focused on the difficulties experienced with the interpretation of the terms adopted in the Convention.

At a second stage and on the initiative of the Netherlands Delegation, the Committee focused more particularly on priority at intersections. It is in fact found that the rules laid down in the Convention on Road Traffic (CRT) and the Convention on Road Signs and Signals (CRSS) are normally less precise than the provisions in national legislation. Differences may therefore be seen between countries with regard to the domestic rules concerning the procedures to be adopted at intersections.

Accordingly, the Committee's work on priorities in road traffic led to discussions and proposals along three different lines:

-- changes in the terminology adopted in the Conventions;

-- changes with respect to the rules adopted for priority at intersections in the existing International Conventions (CRT and CRSS);

-- proposed measures that might be conducive to greater consistency between road signs and signals and road infrastructure.

2. Examination of the terminology in the Conventions

In this connection attention is drawn to the note based on a Spanish proposal and a note drawn up by the Swiss Delegation:

-- the first studies the definitions of "give way", "allow to pass" and "do not endanger or obstruct" in the CRT and CRSS;

-- the second proposes additions to Articles 7 and 18 of the CRT to broaden the unduly limited list of exceptions to the priority to the right and to require the driver to show extra care in particular situations.

The first note shows that terms used in the Conventions in many cases refer to different legal situations whereas the same legal situation is described by different terms. The note is an annexed hereto for information (see Annex 1). Rather than review the terminology of the Conventions in relation to the use of the terms examined, the Committee in fact opted to retain the existing wording for fear of creating further difficulties of interpretation, particularly as the phrases had not apparently given rise to problems when being transposed to domestic road traffic legislation. Special attention should however be paid to this matter in the context of future amendments to the Conventions concerning the points in question.

The purpose of the second note is to detail and extend the summary of derogations to the rule of priority to the right. It accordingly proposes that paragraphs 2 and 3 of the CRT Article 18 be amended to take account of the ways in which these provisions have since been implemented in the domestic legislation and case law of the various countries (see Annex 2). It is also planned to include a further provision in CRT Article 7 calling for extra care on the part of drivers who are authorised, on an exceptional basis, to use roads or parts of roads normally reserved for other categories of user.

3. The value of changing certain rules concerning priority at intersections

On the basis of a survey conducted in Member countries participating in the Committee's work, the Netherlands Delegation determined the main differences in the legislation and case law of ECMT countries.

The summary of replies confirmed that some international rules of priority did not give rise to problems since they are applied uniformly in all ECMT countries in accordance with the letter and spirit of the Conventions. However, other international provisions have been applied differently at domestic level over the course of time, thus giving rise to a further need for some harmonization on the basis of a new wording of the provisions laid down in the Conventions.

The issues examined were centred on the following four topics:

- -- entering motorways and similar ways;
- -- behaviour at intersections;
- -- traffic light signals;
- -- roundabouts.

3.1 Entering motorways and similar ways

Article 25, paragraph 2 of the Convention on Road Traffic (CRT) describes the behaviour to be adopted by a driver entering a motorway as follows:

- -- "If the approach road is not continued by an acceleration lane, give way to vehicles travelling on the motorway.

- -- If there is an acceleration lane, use it and, when merging into the motorway traffic, do so in conformity with the requirements of Article 14, paragraphs 1 and 3, of this Convention." (Any driver wishing to perform a manoeuvre to move over to the left of the carriageway in order to change lanes, shall first make sure that he can do so without risk of endangering other road-users travelling behind or ahead of him or about to pass him, having regard to their position, direction and speed. Before performing the manoeuvre, the driver shall give clear and sufficient warning of his intention by means of the direction-indicator on his vehicle).

Where there is no acceleration lane, the provision in Article 25, paragraph 2 of the CRT is applied in all countries. It would seem that a legislative provision in the highway code of the country, specifying that the right of way is to be yielded to vehicles travelling on the carriageway (main), is not required if the road is sign-posted with the CRSS sign B, 1.

When there is an acceleration lane, the CRT considers that the question is not one of priority but of changing lanes (see Article 14, paragraphs 1 and 3 of the CRT). This situation is not covered by the legislation in many countries.

In the Nordic countries, however, the legal approach to "changing lanes" is covered by the so-called "zip fastener" system which:

-- requires drivers using the acceleration lane to adjust their speed to that of the vehicles travelling in the lane they wish to take; and

-- requires the drivers of the vehicles using that lane to reduce their speed so as to facilitate the change of lane (to enable vehicles in the acceleration lane to enter more easily).

In these countries the zip fastener system is also used in other situations such as when the number of lanes on the carriageway is reduced. This general application will not be taken into consideration in the present context.

The zip fastener system requires drivers to behave in such a way as to facilitate entry into traffic on the main carriageway. However, it does not state clearly whether the vehicle travelling on the carriageway (main) or that entering from the acceleration lane is to go first. In other words, it does not lay down the system of priority.

Article 14, paragraphs 1 and 3 of the CRT regard this manoeuvre as a change of lane which means that the driver entering from the acceleration lane is required not to endanger the driver on the carriageway (main), and in case of doubt to yield him right of way.

In the context of the amendments now being made to the Vienna Conventions by the United Nations Economic Commission for Europe, it has moreover been proposed that Article 25,2 of the CRT be amended accordingly.

To sum up, the zip fastener system is seen as a means of preparing legal provisions to facilitate the process of entering traffic. In this case the zip fastener system is not incompatible with the CRT in that the entry into traffic is to be regarded as a change of lane. From this standpoint, the zip fastener system applied to acceleration lanes may usefully supplement the existing provisions for entering traffic by changing lanes.

3.2 Use of the acceleration lane

As regards Article 25, paragraph 2b) of the CRT, the question arises as to what the driver should do when he arrives at the end of the acceleration lane leading on to the motorway and finds that he cannot enter the traffic on the carriageway.

There are two possible solutions:

-- he stops when necessary at the end of the acceleration lane and waits until he can enter the traffic;

-- he continues to move forward onto the emergency lane as an extension of the acceleration lane and enters the traffic as soon as possible.

The above-mentioned survey showed that in almost all countries the emergency lane must not be used as an extension of the acceleration lane.

The CRTSS proposes that this prohibition should be confirmed.

3.3 Loss of priority to the right

According to Article 18, paragraph 1 (CRT): "Every driver approaching an intersection shall exercise such extra care as may be appropriate to local conditions". Under paragraph 4 of the same Article" ...the driver of a vehicle shall give way... to vehicles approaching from his right".

The question is whether the driver coming from the right and who has stopped, for example, for safety reasons (and not to park momentarily or for a longer period) has lost his (implicit) right of way.

The relevant conclusions are set out in Annex 3.

3.4 Definition of the term "give way"

Under the terms of Article 18, paragraph 4 of the CRT, a driver shall give way to vehicles approaching from his right. According to Article 13, paragraph 1 of the CRT, the driver shall slow down and if necessary stop whenever circumstances so require. If driving carefully results in losing priority, a driver will not be encouraged to stop when necessary.

From the standpoint of safety in international traffic, therefore, the difference between the two systems can lead to confusion.

The survey showed that the obligation to give way is included in the legislation or case of law of a number of countries in broader form than in the Convention on Road Traffic (see Article 1 aa) of the CRT).

In practice, the area of the intersection is not always entirely free, even if that is the rule. Where this rule exists and is complied with, this reduces the capacity of the intersection, thus interrupting the regular flow of traffic.

If applied in international traffic, this rule would be likely to lead to confusion. The judicious application of Article 1 aa) is desirable.

Under the terms of Article 1 aa), the requirement that a driver shall "give way" to other vehicles means that he must not continue or resume his advance or manoeuvre if by so doing he might compel the drivers of other vehicles to change the direction or speed of their vehicles abruptly.

The question is whether this requirement is met by the driver who obstructs part of the intersection although he leaves enough room to pass for vehicles which have right of way in compliance with the conditions set out above.

The conclusions adopted following this specific review of the question are set out in Annex 4.

3.5 Definition of "intersection"

As a general rule all countries have adopted, at least in practice, the definition of intersection given in Article 1h) of the CRT. Differences are sometimes found but they would not seem to give rise to problems for international traffic, so this point does not call for further action.

3.6 T-junctions

Research has shown that when drivers arrive at T-junctions they tend to give way to through traffic across the junction. From the standpoint of a traffic rule, this may not be in conformity with Article 18 of the CRT. This psychological aspect has in some cases become part of the regulatory practice in that "give way" signs (for example, sign B,1) have been set up at the side of the road running into the junction (intersection).

In at least two countries the system described in Article 18 of the CRT is used, often without signs or road marking.

However, the other countries have indicated that the priority at T-junctions is regulated in many cases by means of signs, road marking or the particular design of the infrastructure.

With a view to promoting the uniform use of signs and road marking regulating priority at T-junctions (intersections), especially in situations where Article 18 of the CRT is currently applied, the CRTSS has agreed on a proposed recommendation which is set out in Annex 5.

3.7 Priority and roads carrying through traffic

It is customary in some countries for vehicles on roads carrying through traffic to have priority, while other countries have pointed out that not all these roads give priority to drivers or that the road with the heaviest traffic can be considered to be the road carrying through traffic.

Accordingly, roads carrying through traffic give priority in most countries. In order to ensure the safety of both domestic and international traffic it would therefore be desirable for all major roads carrying through traffic to be sign-posted as priority roads.

The CRTSS intends to confirm this conclusion.

3.8 Pedestrians who ignore traffic lights set up for them

Pedestrians are increasingly tending to ignore the need to refrain from crossing against the red light as is required even when there are no vehicles in the vicinity.

Two countries do not provide for a penalty in such cases. Another country is currently considering ways of avoiding pointless waiting at such lights, for example by replacing the red light for pedestrians by an orange light in certain uncomplicated situations. The other countries said that they did not intend to make it legal for pedestrians to behave as indicated above.

The CRTSS intends to give more thorough consideration to this matter in due course and, for the time being, confirms only that the obligation to refrain from crossing also applies without fail to pedestrians.

4. Priority and consistency between road signs and signals and road infrastructure

The discussion on the findings of the survey showed that the other points examined relate to practical applications in the sphere of interaction between road signs and signals and road infrastructure.

In May 1988 the Council of Ministers of ECMT adopted a Recommendation concerning consistency between road signs and signals and road infrastructure and instructed the Conference to provide it with more detailed proposals at a later date "so that common guidelines for infrastructure safety can be laid down for the use of governments".

The interactions between infrastructure and priorities that was found during the analysis of the CRTSS survey does not relate solely to the zip fastener system, use of the acceleration lane and roads carrying through traffic which were dealt with under sections 3.1, 3.2 and 3.7 respectively, since the discussion showed that this type of interaction also exists for the different systems authorising a right turn despite a red light and for roundabouts.

4.1 Flashing yellow/orange arrow towards the right/right turn at a red light

Unnecessary waiting at traffic lights should be avoided since it can lead to disobedience among drivers and among pedestrians in particular. The traffic light systems of some countries have built in means of avoiding such waiting. The Committee wished to examine these means, especially the legal implications.

More particularly, it is found that cyclists and motorcyclists turn right at a red light although this is not authorised by a sign or signal. In no country has this practice been made legal, although one country is studying the matter.,

During the discussions in the CRTSS, the majority of delegations have said that they are very strongly opposed to allowing a right turn at a red light and they consider that this practice can lead to uncertainty and prove very dangerous from the standpoint of road safety.

For the time being, therefore, the Committee intends to confirm the principle of the requirement to stop at the red light since it was found that the right turn at a red light as practised in the United States would seem to be unsuitable for traffic conditions in Europe.

The Committee took note of a number of other possibilities proposed with a view to achieving the same results, such as:

- special lanes for vehicles preparing to turn right and, if possible, special lights for these lanes;

- additional green arrows or flashing yellow/orange arrows pointing to the right to authorise a right turn at a red light but only when the situation is safe enough;

- in some countries, additional panels bearing an inscription such as "right turn authorised" are set up besides the traffic lights; these panels are only set up if the authorities consider that a right turn at the red light would not be very dangerous.

The CRTSS has decided that it will in due course undertake a study of the merits and application of the proposed systems with a view to possibly establishing a uniform system for all countries.

4.2 Roundabouts

Most ECMT Member countries have roundabouts for which there is an inverse rule of priority i.e. drivers approaching the roundabout must give way to vehicles already on it. In a few countries the system of priority is included in the traffic rules. In all these countries, the system of priority operates in practice by means of a sign, usually sign B,1.

In the other countries, the system of priority at roundabouts conforms to the provisions set out in Article 18 of the CRT, i.e. the principle of priority to the right.

The system of the inverse priority at roundabouts is being used more and more. With a view to a uniform system, it would at least be advisable to examine the signs and signals employed there. It would seem, moreover, that greater use is to be made of roundabouts as a means of making the roads safer and easing the flow of traffic.

In the meantime, the signs and signals used must not be such as to create uncertainty with respect to the rules of priority to the right as specified in the Convention.

4.3 Conclusion

The question of consistency between road signs and signals and road infrastructure is much broader in content than the issue of priorities.

Essentially with a view to taking further action on the above-mentioned Recommendation by the Council of Ministers in May 1988, the CRTSS has decided to take up the discussion in a more general document which is among the priorities in its current programme of work.

5. Summary

On the basis of the preceding analyses, the Committee for Road Traffic, Signs and Signals put forward the following conclusions with respect to the matters examined:

No revision of the wording of the Conventions on Road Traffic and on Road Signs and signals is called for to differentiate between the concepts of "give way", "allow to pass" and "do not endanger or obstruct", although it is advisable to take special care in the event of any subsequent amendments to the provisions concerned.

Where there is no acceleration lane, Article 25.2 of the CRT applies to drivers entering a motorway; since the "zip fastener" system regards the entry into motorway traffic as a change of lane that system would not, moreover, seem to be incompatible with this rule.

A driver entering a motorway must not use the emergency lane as an extension of the acceleration lane.

The definition of "intersection" given in Article 1 h) of the CRT and in Article 1 f) in the CRSS does not give rise to problems of application or interpretation in the domestic legislation of the various countries.

In the interests of the safety of both domestic and international traffic, major roads carrying through traffic should be signposted as priority roads.

While recognising the value of subsequently reconsidering the problem of pedestrians who ignore the need to refrain from crossing against the red light, it is confirmed that the principle of this obligation also applies without fail to pedestrians.

The soundness of the obligation to stop at a red light which is on its own, is confirmed in a situation where a driver who has stopped at such a light prepares to turn right.

Pending a further proposal with respect to priority at roundabouts, the signs and signals used must not be such as to create uncertainty with respect to the rules of priority to be complied with.

Other conclusions are set out in the annexes hereto.

Lastly, analysis has shown that there are frequent and close interrelationships between the configuration and design of infrastructure and the application of the rules of priority. It is therefore also useful to study this aspect of the matter very thoroughly. However, as consistency between road signs and signals and road infrastructure is a subject well beyond the scope of this note, the matter should be taken up in a more general paper, although the present study should continue to receive priority.

Annex 1

"GIVE WAY, ALLOW TO PASS AND NOT ENDANGER OR OBSTRUCT"

1. Present situation

Upon these questions the World Conventions and the European Agreements dispose what follows.

"Convention on Road Traffic", Vienna, 1968 and "European Agreement supplementing the Convention on Road Traffic", Geneva, 1971

Article 1. Definitions

aa) The requirement that a driver shall **"give way"** to other vehicles means that he must not continue or resume his advance or manoeuvre, if by doing so he might compel the drivers of other vehicles to change the direction or speed of their vehicle **abruptly.**

Article 7. General rules

1. Road-users shall avoid any behaviour likely **to endanger or obstruct** traffic, to endanger persons, or to cause damage to public or private property.

Article 11. Overtaking and movement of traffic in lines

2. Before overtaking, every driver shall, without prejudice to the provisions of Article 7, paragraph 1, or to those of Article 14 of this Convention, make sure:

a) That no driver who is following him has begun to overtake him.

b) That the driver ahead of him in the same lane has not given warning of this intention to overtake another.

c) That the lane he is about to take is clear far enough ahead, having regard to the difference between the speed of his vehicle while overtaking and that of the road-users to be overtaken, for him not **to endanger or impede** oncoming traffic; and

d) That, except when using a lane closed to oncoming traffic, he will be able, without inconvenience to the road-user or road-users overtaken, to resume the position prescribed in Article 10, paragraph 3, of this Convention.

A driver who perceives that a driver following him wishes to overtake him shall, except in the case provided for in Article 16, paragraph 1 (b), of this Convention keep close to the edge of the carriageway appropriate to the direction of traffic and refrain from accelerating. If, owing to the narrowness, profile or condition of the carriageway, taken in conjunction with the density of oncoming traffic, a vehicle which is slow or bulky or is required to observe a speed limit cannot be easily and safely overtaken, the driver of such vehicle shall slow down and, if necessary, pull in to the side as soon as possible in order **to allow** vehicles following him **to overtake.**

Article 12. Passing of oncoming traffic

1. When passing oncoming traffic, a driver shall leave sufficient lateral space and, if necessary, move close to the edge of the carriageway appropriate to the direction of traffic. If, in so doing, he finds his progress impeded by an obstruction or by the presence of other road-users, he shall slow down and, if necessary, stop **to allow** the oncoming road-user or road-users **to pass.**

* 2. On mountain roads and steep roads with characteristics similar to those of mountain roads, where the passing of oncoming traffic is impossible or difficult, it is the driver of the vehicle travelling downhill who should pull in to the side of the road in order **to allow** any vehicle proceeding uphill **to pass**, except where the arrangement of lay-bys to enable vehicles to pull in to the side of the road is such that, having regard to the speed and position of the vehicles, the vehicle proceeding uphill has a lay-by ahead of it and the need for one of the vehicles to reverse could be avoided if the vehicle proceeding uphill pulled in to that lay-by. Where one of the two vehicles which are about to pass is obliged to reverse in order to make passing possible, combinations of vehicles shall have the **right of way** over other vehicles, heavy vehicles over light vehicles and buses over lorries; where both vehicles are of the same category, it is the driver of the vehicle proceeding downhill who should reverse unless it is manifestly easier for the driver of the vehicle proceeding uphill to do so, for example, if the latter is near a lay-by.

Article 14. General requirements governing manoeuvres

* 1. Any driver wishing to perform a manoeuvre such as pulling out of or into a line of parked vehicles, moving over to the right or to the left of the carriageway, particularly in order to change lanes, or turning left or right into another road or into a property bordering on the road, shall first make sure that he can do so **without** risk of **endangering** other road-users travelling behind or ahead of him or about to pass him, having regard to their position, direction and speed.

2. Any driver wishing to make a U-turn or to reverse shall first make sure that he can do so **without endangering or impeding** other road-users.

Article 15. Special regulations relating to regular public-transport service vehicles

* 1. Domestic legislation must provide that in built-up areas, in order to facilitate the movement of regular public-transport service vehicles, the drivers of other vehicles shall, subject to the provisions of Article 17, paragraph 1, of this Convention, slow down and if necessary stop, in order **to allow** the public-transport vehicles **to perform the manoeuvre** required for

moving off from stops marked as such. The provisions thus laid down by Contracting Parties or sub-divisions thereof, shall in no way affect the duty incumbent on drivers of public-transport vehicles to take, after having given warning by means of their direction-indicators of their intention to move off, the precautions necessary to avoid any risk of accident.

Article 16. Change of direction

2. While changing direction, the driver shall, without prejudice to the provisions of Article 21 of this Convention regarding pedestrians, **allow** oncoming vehicles on the carriageway he is preparing to leave, and cycles and mopeds moving on cycle tracks crossing the carriageway he is about to enter, **to pass.**

Article 17. Slowing down

2. Every driver intending to slow down to an appreciable extent shall, except where his slowing down is in response to an imminent danger, first make sure that he can do so **without danger or undue inconvenience** to other drivers. He shall also, unless he has made sure that there is no vehicle following him or that any following vehicle is a long way behind, give clear and timely warning of his intention by making an appropriate signal with his arm. However, this provision shall not apply if warning of slowing down is given by the vehicle's stop lights, referred to in Annex 5, paragraph 31, of this Convention.

Article 18. Intersections and obligation to "give way"

1. Every driver approaching an intersection shall exercise such extra care as may be appropriate to local conditions. Drivers of vehicles shall, in particular, drive at such a speed as to be able to stop **to allow** vehicles having the **right of way to pass.**

2. Every driver emerging from a path or an earth-track (dirt road) on to a road other than a path or an earth-track shall **give way** to vehicles travelling on that road. For the purposes of this Article, the terms "path" and "earth-track"(dirt road) may be defined in domestic legislation.

* 3. Every driver emerging on to a road from a property bordering thereof, shall **give way** to road-users travelling on that road.

4. Subject to the provisions of Paragraph 7 of this Article:

a) In States where traffic keeps to the right, the driver of a vehicle shall **give way** at intersections other than those specified in Paragraph 2 of this Article and in Article 25, paragraphs 2 and 4 of this Convention, to vehicles approaching from his right.

* b) In States where traffic keeps to the left, the **right of way** at intersections shall be regulated by road signs, signals or markings.

7. At intersections, drivers of vehicles not moving on rails shall **give way** to rail-borne vehicles.

Article 21. Behaviour of drivers towards pedestrians

1. Without prejudice to the provisions of Article 7, paragraph 1, Article 11, paragraph 9, and Article 13, paragraph 1, of this Convention, where there is on the carriageway a pedestrian-crossing sign-posted as such or indicated by markings on the carriageway:

a) If vehicular traffic is regulated at that crossing by traffic-light signals or by an authorised official, drivers forbidden to proceed shall stop short of the crossing and, when they are permitted to proceed, shall not prevent or obstruct the passage of pedestrians who have stepped on to and are proceeding over the crossing in the conditions laid down in Article 20 of this Convention; drivers turning into another road at the entrance to which there is a pedestrian-crossing shall do so slowly and **allow to pass (in the other texts of the Convention)**, if necessary stopping for this purpose, to pedestrians already using, or about to use, the crossing in the conditions laid down in Article 20, paragraph 6, of this Convention;

b) If vehicular traffic is not regulated at that crossing by traffic-light signals or by an authorised official, drivers shall approach the crossing only at a speed low enough not to endanger pedestrians using, or about to use it; if necessary, they shall stop **to allow** such pedestrians **to cross.**

* 1bis. Without prejudice to the provisions of Article 7, paragraph 1 and Article 13, paragraph 1 of the Convention, if there is on the carriageway no pedestrian-crossing sign-posted as such or indicated by markings on the carriageway, drivers turning into another road shall do so, if necessary stopping for this purpose, to pedestrians who have stepped on to the carriageway in the circumstances provided for in Article 20, paragraph 6, of the Convention.

2. Drivers intending to overtake, on the side appropriate to the direction of traffic, a public transport vehicle at a stop marked as such shall slow down and if necessary, stop **to allow** passengers **to allow** passengers **to board or alight** from that vehicle.

Article 25. Motorways and similar roads

2. Drivers emerging on to a motorway shall:

a) If the approach road is not continued by an acceleration lane, **give way** to vehicles travelling on the motorway.

b) If there is an acceleration lane, use it and, when merging into the motorway traffic, do so in conformity with the **requirements of Article 14, paragraphs 1 and 3, of this Convention.**

Article 29. Rail-borne vehicles

1. Where a railway uses a carriageway, every road-user shall, on the approach of a tram or other rail-borne vehicle, clear the track as soon as possible **to allow** the rail-borne vehicle **to pass.**

Article 34. Exemptions

1. When warned of the approach of a priority vehicle by its special luminous and audible warning devices, every road-user shall **leave room clear** for it **to pass** on the carriageway and shall, if necessary, stop. [To this end, drivers shall draw up as closely as possible to the edge of the carriageway corresponding to the direction of traffic to enable priority vehicles to pass (ECMT, 1976)].

"Convention on Road Signs and Signals", Vienna, 1968 and "European Agreement supplementing the Convention on Road Signs and Signals", Geneva, 1971

Article 1. Definitions

u) (Same definition of **"give way"** as in Article 1.aa of the "Convention on Road Traffic")

Article 10. Priority Signs

1. The signs for notifying or informing road-users of the special rules of **priority** at intersections B,1; B,2; B,3 and B,4, which are described in Annex 2, section A, to this Convention. The signs for informing road-users of a rule of **priority** on narrow sections of road are Signs B,5 and B,6 which are described in Annex 2, section C.

2. Sign B,1 **"give way"**, shall be used to notify drivers that, at the intersection where the sign is placed, they must **give way** to vehicles on the road they are approaching.

* 3. Sign B,2 **"stop"**, shall be used to notify drivers that, at the intersection where the sign is placed, they shall stop before entering the intersection and **give way** to vehicles on the road they are approaching. Each State shall select B,2[a] as the model for the "stop" sign.

4. Sign B,2 shall be placed elsewhere than at an intersection if the competent authorities consider it necessary to notify drivers that they are required to stop level with the sign and not move off again until they have ascertained that they can do so **without danger.**

5. Signs B,1 and B,2 shall be placed at the intersection, if possible level with the point at which vehicles must stop or beyond which they must not pass when **giving way.**

* 6. To give advance warning of sign B,1 the same sign supplemented by a panel conforming to model 1, reproduced in Annex 7 to the Convention, shall be used.

To give advance warning of sign B, 2[a], sign B,1 supplemented by a rectangular panel beaming the "**stop**" symbol and a figure indicating the distance to the sign B, 2[a], shall be used.

7. Sign B,3, "PRIORITY ROAD", shall be used to notify users of a road that, at intersections of that road with other roads, the drivers of vehicles moving along or coming from such other roads are required **to give way** to vehicles moving along that road. This sign may be set up at the beginning of the road and repeated after each intersection; it may also be set up before or at the intersection. Where

Sign B,3 has been set up on a road, Sign B,4 "END OF PRIORITY", shall be placed at the approach to the point where the road ceases to have priority over other roads. Sign B,4 may be repeated one or more times in advance of the point where the **priority** ends; the sign or signs set up in advance of that point shall then bear an additional panel conforming to Model 1 in Annex 7.

8. If warning of an intersection is given on a road by a **danger** warning sign bearing one of the A, 22 symbols, or if at the intersection the road is a priority road and has been marked as such by sign B,3 as provided in Paragraph 7 of this Article, a sign B,1 or B,2 shall not be mandatory on roads such as paths or earth-tracks where drivers are required **to give way** at the intersection even in the absence of such signs. A sign B,2 shall be set up only if the competent authorities consider it advisable to require drivers to stop, in particular because of the poor visibility, for drivers, of the sections of the road, on either side of the intersection, which they are approaching.

Article 23. Signals for vehicular traffic

* 10. Where a signal of a three-colour system includes one or more additional green lights in the shape of one or more green arrows on a circular black background, the lighting of such additional arrow or arrows shall, no matter what phase the three-colour system may be in at the time, mean that traffic may proceed in the direction or directions indicated by the arrow or arrows; it shall also mean that, when vehicles are in a lane reserved for traffic in the direction indicated by the arrow or the direction such traffic is required to take, their drivers must proceed in the direction indicated if by stopping, they would obstruct the movement of vehicles behind them in the same lane, provided always that vehicles in the traffic stream they are joining must be **allowed to pass** and that pedestrians must not be **endangered.** These additional green lights should preferably be placed at the same level as the normal green light.

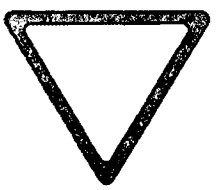
Appendix (Annex 2 in the Convention on Road Traffic)

SIGNS REGULATING PRIORITY AT INTERSECTIONS, DANGER WARNING SIGNS AT APPROACHES TO INTERSECTIONS AND SIGNS REGULATING PRIORITY ON NARROW SECTIONS OF ROAD

NOTE -- At an intersection comprising a **priority** road in which there is a bend, a panel bearing a diagram of the intersection which shows the outline of the **priority** road may be placed below **danger** signs giving warning of the intersection or below signs regulating **priority**, whether they are set up at the intersection or not.

Section A -- **SIGNS REGULATING PRIORITY AT INTERSECTIONS**

1. "**GIVE WAY**" sign



B,1

* The "**GIVE WAY**" sign shall be Sign B,1. It shall consist of an equilateral triangle having one side horizontal and the opposite vertex below it. The ground shall be white or yellow and the border red. The sign shall bear no symbol or inscription.

The side of the normal sized sign shall measure approximately 0.90m (3ft); the side of the small sign shall measure not less than 0.60m (2 ft).

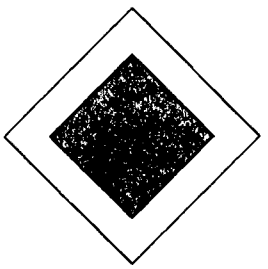
2. **"STOP"** sign[1]

B,2[a]

* The **"STOP"** sign shall be sign B,2, model B,2[a]. Sign B,2 model B,2[a] shall be octagonal with a red ground surrounded by a narrow white or light yellow border and bear the symbol **"STOP"** in white or light yellow; the height of the symbol shall be not less than one-third of the height of the panel.

The height of the normal-sized sign B,2[a] shall be approximately 0.90 metres (3 ft.); the height of the small signs shall be not less than 0.60 metres (2 ft.).

3. **"PRIORITY ROAD"** sign



B,3

The **"PRIORITY ROAD"** sign shall be sign B,3. It shall consist of a square with one diagonal vertical. The rim of the sign shall be black; the sign shall have in its centre a yellow or orange square with a black rim; the space between the two squares shall be white.

The side of the normal sized sign shall measure approximately 0.50 metres (1 ft. 8 in.); the side of the small sign shall measure not less than 0.35 metres (1 ft. 2 in.).

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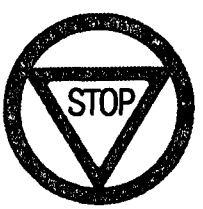
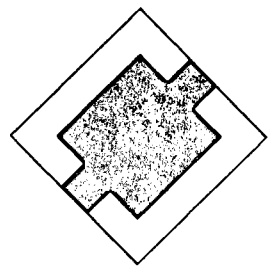
1. 

In accordance with the Agreement sign II, A,16 "STOP AT INTERSECTION" prescribed in the Geneva Convention on Road Signs and Signals (1949) may be retained besides sign B,2[a] for ten years as from the entry into force of the Agreement.

4. **"END OF PRIORITY"** sign



B,4

The **"END OF PRIORITY"** sign shall be sign B,4. It shall consist of sign B,3 above with the addition of a black or grey median band perpendicular to the lower left and upper right sides of the square, or of black or grey parallel lines forming such a band.

Section B -- **DANGER** WARNING SIGNS AT APPROACHES TO INTERSECTIONS

1. Signs

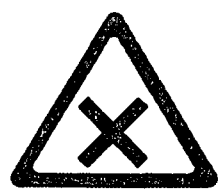
* **Danger** warning signs at approaches to intersections shall be of Model A[a], described in Annex 1, section A.

2. Symbols

The symbols shall be black or dark blue.

* a) As regards the symbol to be placed on sign A[a], the following cases shall be distinguished:

* i) Intersection where **the priority** is that prescribed by the general **priority** rule in force in the country: symbol A,21[a] shall be used.

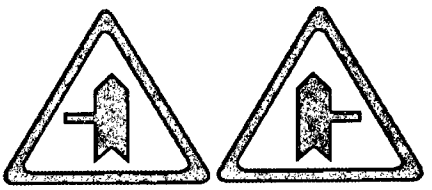


A,21[a]

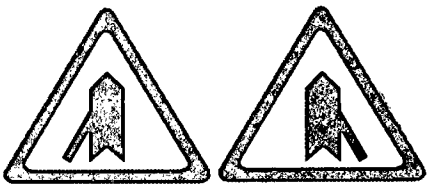
ii) Intersection with a road, the users of which must **give way:** the symbol used shall be A,22[a]

A,22[a]

Symbol A,22[a] may be replaced by symbols which show the nature of the intersection more clearly, such as A,22[b] and A,22[c]



A,22[b]



A,22[c]

These symbols may be used on a road only if sign B,1 or sign B,2 is placed on the road or roads with which it forms the intersection of which warning is given, or if these roads are such (for example, paths or earth-tracks) that, under domestic legislation, drivers using them are required **to give way** at the intersection even in the absence of such signs. The use of these symbols on roads on which sign B,3 is set up shall be confined to certain exceptional cases.

* iii) Intersection with a road to whose users, drivers must **give way.** Sign B,1 or Sign B,2[a] shall be used in conformity with the provisions of the Convention, Article 10, paragraph 6[1].

iv) Roundabout: symbol used shall be A,25.

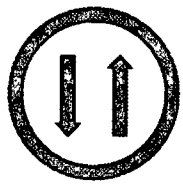
A,25

where traffic to the left, the direction of the arrows shall be reversed.

* b) If traffic at the intersection is regulated by a light signal, a sign A[a] beaming symbol A,16, described in Annex 1, Section B to the Convention, may be set up "to supplement or **replace the signs** described in this section.

Section C -- SIGNS REGULATING **PRIORITY** ON NARROW SECTION OF ROAD

1. Sign indicating **priority** for oncoming traffic



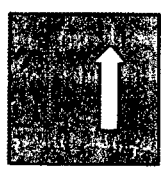
B,5

If, on a narrow section of road where passing is difficult or impossible, traffic is regulated and if, because drivers can see the whole length of the section clearly both at night and by day, such regulation is carried out by giving **priority** to traffic moving in one direction and not by installing traffic-light signals, Sign B,5 **"Priority for oncoming traffic"** shall be set up facing the traffic on the side which does not have **priority.** This sign shall mean that entry into the narrow section is prohibited so long as it is not possible to pass through that section without obliging oncoming vehicles to stop.

This sign shall be round, with a white or yellow ground and a red border; the arrow indicating the direction having **priority** shall be black and that indicating the other direction red.

In states where traffic keeps to the left, the position of the arrows shall be reversed.

2. Sign indicating **priority** over oncoming traffic



B,6

To notify drivers that on a narrow section of road they have **priority** over oncoming vehicles the sign used shall be B,6.

This sign shall be rectangular with a blue ground; the arrow pointing upwards shall be white and the other arrow red.

Where traffic keeps to the left, the position of the arrows shall be reversed.

When sign B,6 is used, a sign B,5 shall be placed on the road, at the other end of the narrow section, for traffic moving in the opposite direction.

Provisions in the 1971 Geneva Agreements which supplement, replace or cancel provisions in the 1968 Vienna Conventions are marked in all cases with an asterisk in the margin to show where the provision concerned begins. A line down the margin shows how far such amendments extend and footnotes are added where required.

2. Analysis of the problems

If **to "give way"** has a precise definition in the Convention (Articles 1.aa and 1.u), **"to allow to pass", "to allow to overtake", "to allow to perform the manoeuvre", "to allow to cross"** or **to "leave room clear .... to pass"**, though not defined, by their own signification they seem to be more exigent with the road users.

At all intersections, every driver of a vehicle " shall ... **to allow** vehicles having the **right of way to pass"** (Article 18.1), but in some intersections only "shall **give way** to vehicles" having the **right of way** (Articles 18.2 and 18.4) and at all intersections "shall **give way** to rail-borne vehicles" (Article 18.7).

No manoeuvre shall begin to be performed if it could **endanger** other road-users (Article 14.1 and 25.2.b), some ones demand also to **not impede** them (Article 14.2) and others oblige further **"to allow to pass"** (Articles 12.1 and 16.2) or to **"give way"** (Articles 18.2, 18.3 and 25.2.a).

If, within a manoeuvre somebody **"gives way"**, namely compels the drivers of other vehicles to change the direction or speed of their vehicles, always not **abruptly**, he has **endangered** them and consequently Article 14 of the Convention has been violated.

3. Consequences

In cases when road-users are **not endangered or impeded**, in fact they are **allowed to pass** and they are not compelled to change their direction or speed.

The definition of **to "allow to pass"** could be the following:

"The requirement that a road-user shall **"allow to pass"** to other road-users means he must not continue or resume his advance or manoeuvre if by so doing he might compel other users to change their direction or their speed."

According to Article 18.1 of the Convention on Road Traffic, Articles 18.2, 18.3, 18.4, 18.7 and 25.2.a should require also **to "allow to pass"**, instead of **to "give way"**.

By consequence the definitions of **to "give way"** would be unnecessary (Articles 1.aa and 1.u) and along all the Convention on Road Signs and Signals, the expression **"give way"** should be changed for **"allow to pass"**.

Note

1. The Agreement refers to Item 9 of its Annex. Moreover, in accordance with the provisions of the Agreement "ad Annex 2 -- Section B -- paragraph 2 (a) (iii) of the Convention" Signs A,23 and A,24 are not taken into account.

Annex 2

APPLICATION OF ARTICLE 18 OF THE CONVENTION ON ROAD TRAFFIC IN ECMT COUNTRIES

The Committee has reached the conclusion that it is necessary to extend the unduly short list of exceptions to the rule of priority to the right given in paragraphs 2 and 3 of Article 18 of the CRT with a view to bringing the Convention into line with domestic legislation and case law in ECMT countries. For example, mention should be made of: pedestrian areas, parking places, fuel service stations and, in accordance with practice in certain countries, also cycle tracks and exits ("sorties", "Ausfahrten"). Consideration should also be given to amending paragraph 1 of Article 7 of the CRT with a view to requiring the driver to shown extra care in general in certain situations.

Accordingly, the following amendments are proposed:

1. Article 18, paragraph 2 of the CRT

The end of paragraph 2 might be amended to read as follows:

"...domestic legislation; the latter may include under the terms 'path' and 'earth-track' (dirt road) any other tracks or streets which are not open to power-driven vehicles moving in public traffic."

This further sentence is very general and covers pedestrian areas and cycle tracks, i.e. public ways which are not open to power-driven vehicles moving in public traffic. The terms "public traffic" and "power-driven vehicles" are used in Article 1 d) and o) of the CRT.

2. Article 18, paragraph 3 of the CRT

Paragraph 3 might be amended to read as follows:

"Every driver emerging onto a road from a bordering property, such as a parking area, fuel service station or any similar public or private area, shall give way to road-users travelling on that road."

By giving typical examples of the concept of "bordering property", the text would more accurately reflect current practice in European countries.

3. Article 7, paragraph 3 of the CRT

A paragraph 3bis might be included which reads as follows:

"Extra care is called on the part of road-users who are authorised to take roads or parts of roads assigned to other categories of user."

This sentence calls for extra care on the part of drivers as provided for in pedestrian areas under Article 21 of the CRT, as amended by the Committee [see CCSR(84)21 Revised], in all situations where a driver is authorised by a sign, additional panel or special authorization, to use a road assigned to other categories of user, as in the following cases:

-- Taxis using a lane reserved for public transport buses.

-- Lorries using a road normally prohibited to them.

-- Vehicles which have to cross a pavement (side-walk) to reach private property.

Annex 3

LOSING THE RIGHT OF WAY -- DEFINITION OF "MANOEUVRE"

1. The problem

Article 18 4a) of the Convention on Road Traffic states that "...the driver of a vehicle shall give way... to vehicles approaching from his right".

The courts, which have had to reach decisions on a great many individual cases, have in some countries established a specific body of case law whereby a driver with right of way who stops, even briefly, loses his priority when resuming his progress.

Such decisions are based on the fact that this behaviour constitutes a **manoeuvre** (Putting a vehicle in motion again) and, accordingly, that the author of a manoeuvre must yield right of way to other users.

Other countries have adopted the opposite view and this is imposed, at least by the courts.

In these countries, bringing a vehicle to a halt for safety reasons, or even for reasons based on a regulation -- for example, the requirement to stop to allow pedestrians to cross -- does not result in the loss of right of way, but this does not mean that the driver with priority can ignore the general rule to the effect that extra care be shown when approaching an intersection.

The question is therefore to decide which of the two approaches should be adopted and whether Article 18 of the Convention should be amended to clarify the situation.

2. Analysis of the problem

The two points of view given under Section 1 are clearly diametrically opposed, so the implications must be analyzed.

The approach whereby coming to a halt for safety reasons is regarded as a manoeuvre gives rise to problems in terms of the provisions of the CTR and therefore as regards international traffic, since it constitutes an exception to the rule laid down in Article 18.4 (a) concerning priority to the right. What is involved is a de facto inversion of the rule of priority, which has implications for international traffic.

There is also the question of whether it is useful to regard the halt as a manoeuvre. If the idea is basically to strengthen the general rule concerning care on approaching an intersection, the fact remains that the solution adopted may itself well give rise to further problems, since to make the loss of priority a formal legal rule does not exempt the courts from establishing and applying a legal rule

-- certainly precise -- in specific cases. The possibility of conflicting interpretations by the courts therefore remains, without it being any easier to resolve the difficult problem of proof.

Lastly, it is not logical to penalise a driver who both has priority and is careful -- since he is complying with the requirement to show extra care -- when he stops his vehicle to take the necessary precautions before entering an intersection or to comply with a traffic rule.

The second approach, namely to maintain the priority, would therefore seem to have fewer drawbacks.

3. Conclusions

The analysis under section 2 above shows that the problem relates essentially to the CRT's imprecise definition of "manoeuvre". The list given in Article 14.1 of the CRT is clearly not limitative as evidenced not only by the terminology used[1] but also the terms of paragraph 2 of the same article[2]. The fact that there have been different interpretations is therefore attributable to the wording.

Instead of amending the provisions of Article 18 of the Convention, it would be better to define the word "manoeuvre" in Article 1 of the CRT in order to obtain a uniform application of the rules on right of way. It is therefore proposed that the following subparagraph (ac) be added to Article 1 of the CRT:

"Manoeuvre" means that a driver acts as follows:

-- Pulls out of or into a line of parked vehicles.

-- Puts into motion a vehicle that is "standing" as defined under point (k), (i) of this article or makes it "stand".

-- Changes from one lane to another.

-- Turns left or right into another road or into a property bordering on the road.

-- Makes a U-turn or reverses."

In view of this addition to Article 1, the first paragraph of Article 14 of the CRT might be re-worded and paragraph 2 deleted as no longer applicable, so that the present paragraph 3 becomes the new paragraph 2.

Article 14 of the CRT would then read as follows:

"1. Any driver wishing to perform a manoeuvre shall first make sure that he can do so without risk of endangering or impeding[3] other road-users travelling behind or ahead of him or about to pass him, having regard to their position, direction and speed.

2. Before turning or before a manoeuvre which involves moving laterally, the driver shall give clear and sufficient warning of his intention by means of the direction-indicator or direction-indicators on his vehicle, or, failing this, by giving if possible an appropriate signal with his arm. The warning given by the direction-indicator or direction-indicators shall continue to be given throughout the manoeuvre and shall cease as soon as the manoeuvre is completed."

Such a modification in article 14 brings about two draft amendments in article 25 and 30 of the CRT, i.e.:

Item b, second paragraph of article 25 should read as follows:

"If there is an acceleration lane, use it and, when merging into the motorway traffic, do so in conformity with the requirements of Article 14, paragraphs 1 end 2 of this Convention."

Item d, second paragraph article 30 should read "*in fine*":

"Masking lights ... in accordance with Article 14, paragraph 2, or Article 17, paragraph 2, of this Convention".

Notes

1. Any driver wishing to perform a manoeuvre such as...

2. Any driver wishing to make a U-turn or to reverse shall first make sure that...

3. The Delegation of Spain has entered a reservation to be in conformity with the principles set out in the Convention on Road Traffic (1968), on the obligation made for the drivers not to impede through manoeuvres other than a U-turn or reverse.

Annex 4

DEFINITION OF "GIVE WAY" -- PRACTICAL IMPLICATIONS

1. The problem

Article 1 aa) of the CRT seeks to explain the term "give way" and states that the **driver** "must not **continue or resume his advance or manoeuvre** if by so doing he might compel the **drivers** of other vehicles to change the direction or speed of their vehicle abruptly".

It is not therefore made clear that the driver must leave the intersection entirely free, but such is the meaning of Article 1 aa) insofar as the CRT as a whole is concerned, including cases where the driver does not necessarily enter an intersection (e.g.: manoeuvre).

"Following aspects of the problem can be set out:

2. At intersections

2.1 Drivers required to give way to vehicles approaching from their right

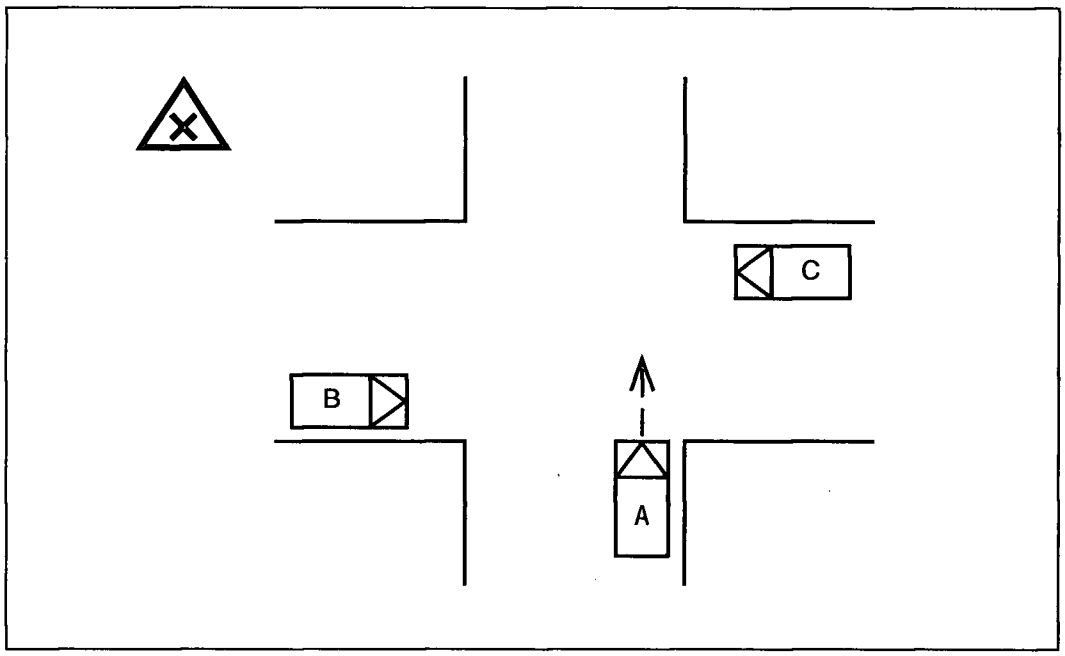
Article 18 4a) of the CRT is quite clear: it states that the driver of a vehicle shall give way to vehicles approaching from his right.

The situation in figure 1 establishes obligations that may be qualified as progressive among the drivers insofar as vehicle B is required to give way to A which may logically advance into the intersection but, if the situation arises, must give way to vehicle C.

It may be concluded that driver A is not necessarily required to leave the intersection free if driver C should arrive, provided that A gives way to C.

The fact is that the general rule of giving way to vehicles approaching from the right creates a series of obligations among drivers **within the intersection itself.**

Sketch 1



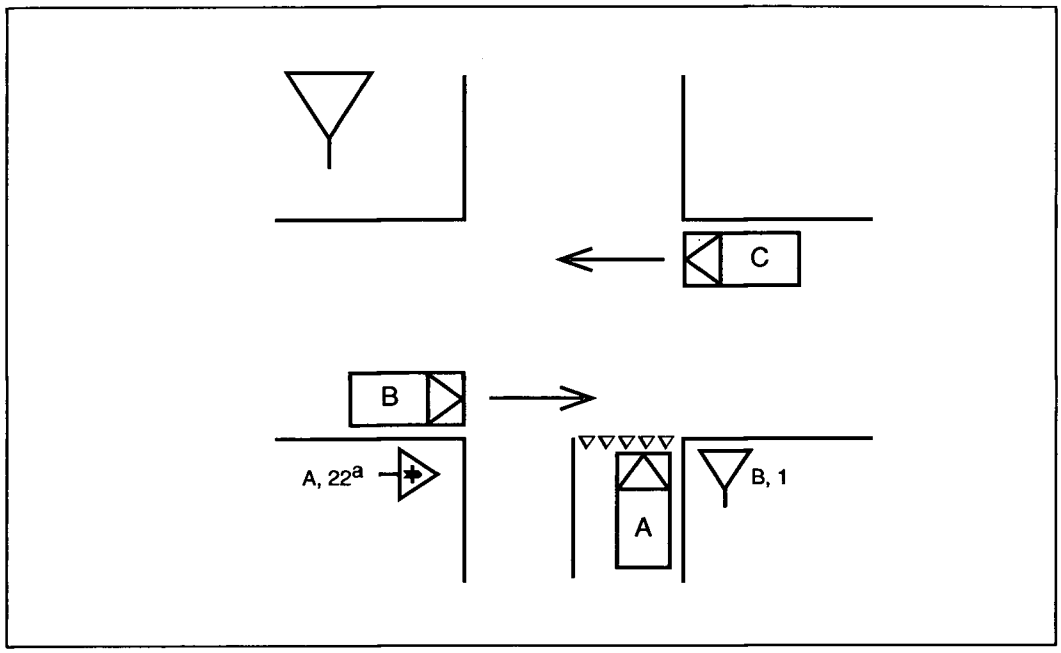
2.2 Obligation to leave the intersection free

It should be noted that, if application of the rule under Article 18 4a) interrupts the flow of traffic, steps will be taken to give priority to the main road by means of B,3 signs or to show the nature of the intersection by means of signs A,22 [a, b, and c] of the Convention on Road Signs and Signals (CRSS).

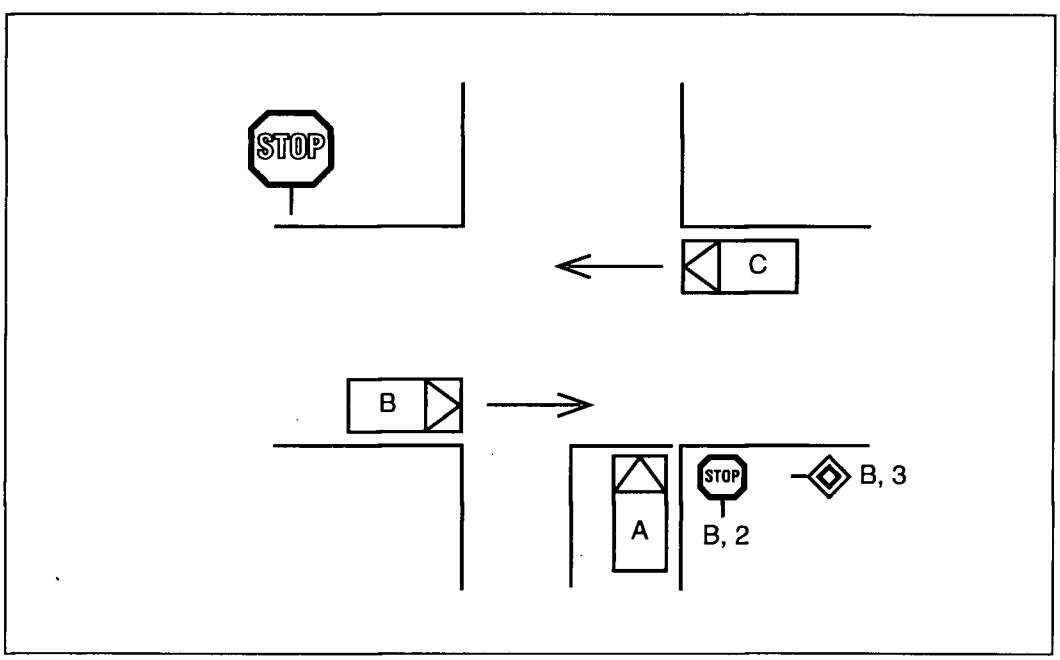
In this case, the driver is required to leave the whole intersection free and give way to all vehicles on the main road.

The definition of signs B,3 and A,22 is quite explicit in this respect: they concern **the road**[1] and, accordingly, the obligation established by signs B,2 and B,2 a of the CRSS is to give way or halt to allow drivers to pass on the said road irrespective of whether they approach from the right or the left (figures 2 and 3).

Sketch 2



Sketch 3



This obligation is also confirmed by Article 10,5 of the CRSS, according to which:

"Signs B,1 and B,2 shall be placed [....] level with the point at which vehicles must stop **or beyond which they must not pass when giving way.**"

The transverse road markings described in Article 27 of the CRSS and shown in diagrams A,32, A,34 and A,38 in particular, support this argument.

2.3 Particular cases

2.3.1 The position described in paragraph 2.2 is also applicable in the case of paths and earth-tracks (dirt roads) (Article 18,2 of the CRT) since drivers on such paths and tracks are also required to give way to **vehicles travelling on the road**.

2.3.2 Similarly, drivers must give way to rail-borne vehicles irrespective of the direction in which the latter are travelling (Article 18,7 of the CRT).

3. Situations not involving intersections

The aim of Article 1 aa) is to define the **general** behaviour that should govern the obligation to give way. For example, Articles 18,3 and 25,2 a) do not relate to intersections and the obligation to give way in those cases falls respectively on **users** or **drivers** on the **road** or **motorway**.

4. Conclusions

In the light of the cases set out above it does not seem advisable to try to provide any further clarification of the term "give way" in Article 1 aa) of the CRT, since the driver may either "advance" in the intersection or not, if he should encounter a rail-borne vehicle, for example.

In other cases, the driver is required to leave the intersection free.

Lastly, the same situation also prevails in many cases not involving intersections.

The Committee would advise for the general behaviour set out in Article 1 aa) to coexist with compliance with the other obligations emanating from the CRT and CRSS, however, on the other hand, it would seem advisable to use uniform terminology where the same concept is concerned, aspect which is considered in the note by the Spanish Delegation in this connection.

Note

1. See also Article 10,7 and 10,8 of the CRSS.

Annex 5

PRIORITY AT T-JUNCTIONS

Preliminary remark

Article 18,4 of the Vienna Convention states that, generally speaking, where traffic keep to the right, the driver approaching from the right has priority at intersections; exceptions to this rule are indicated by traffic signs or road markings. Surveys have shown that in practice there is a tendency to give way to through traffic. This is why the question has been raised as to whether through traffic should not always have priority at T-junctions. Those in favour also expect better compliance as observance of the new provision would come more naturally to drivers.

Current practice

Priority of right over left as a basic rule

Priority of right over left applies unreservedly in all countries in which traffic deeps to the right. It has become instinctive in drivers as a whole. A departure from this rule would involve -- at least during a transitional period -- a considerably higher number of accidents.

This would be all the more probable as it would lead to a dual system, since the present regulation would still apply to intersections other than T-junctions. The priority rule would therefore become more complicated, and a complicated rule usually does not add to safety.

Flexible rather than strict application

In practice Article 18 is anything but a strict rule as there are innumerable exceptions. These include not only cases in which there are marked differences in the traffic density and characteristics of two intersecting roads, but also those in which the road configuration creates difficulties for drivers (e.g. sharp intersections and junctions). Decisions therefore always depend on the particular case. This, and not the principle of the provision in itself, is the criterion, and it is also the only intelligent approach. Otherwise, for example, light through traffic would have priority over heavy turning traffic. A basic function of traffic signs -- keeping traffic fluid and light, which also contributes to safety -- would thus be neglected.

These considerations are given greater weight by the fact that the ECMT Council of Ministers acknowledged the principle of consistency in traffic signs and infrastructure as recently as May 1988.

The conclusion refers explicitly to criteria such as road characteristics and the fluidity and homogeneity of traffic.

Traffic regulations should be such as to make things as easy as possible for the driver to behave as he should. It contributes to safety if a regulation is in keeping with what the driver does naturally. It is precisely this point which justifies a flexible procedure. But flexible procedures necessarily mean more traffic signs. This would also be the case if the new traffic rule were implemented. The change in the rule would therefore not modify such cases in practice.

Application of the proposed change to roads with the same construction and traffic characteristics

In the light of what has been said above, the application of the proposed change would in practice be limited to junctions between roads with comparable construction and traffic characteristics. This is mainly the case of roads in the same kind of areas, e.g. those which are mainly residential. An important point to be remembered here is that the priority of right over left which has existed so far has a traffic restraining effect. It is quite understandable that an extension of the right before left rule should be demanded and indeed implemented when the aim is to restrain traffic further. This additional advantage would be given up unnecessarily, with the result that, in cases where the rule could be observed without difficulty from the traffic viewpoint, the change would not only bring no advantage but result in an additional disadvantage.

Conclusion

Changing the rule on priority for the benefit of through traffic should not be recommended because of the overwhelming disadvantages to be expected compared with the present situation.

REPORT ON IMPROVED ACCESS TO TRAINS

[CEMT/CM(92)9]

COVER NOTE

The background to this work lies in the Resolution adopted by Ministers in November 1990 and is set out in more detail in the first part of the report. The objective is to develop compatible standards for access to trains throughout Europe. The attached report, which sets out guidelines for such work, has been drawn up and agreed by an Expert Group containing representatives nominated by the International Union of Railways (UIC) and by ECMT Governments.

The report was approved by the ECMT Ad-Hoc Group on Transport for People with Mobility Handicaps at its meeting on 31 March 1992 and by the Committee of Deputies on 15 April. The report is at present being discussed by concerned working groups in the UIC.

Carrying out the recommendations in the report should result in compatible access standards across Europe, which should lead to a significant improvement for people with mobility handicaps. Some of the guidelines proposed in this report can be implemented rapidly and easily. Others are more long term. In any case, it is essential that governments and railways are aware of the guidelines and that strenuous efforts be made to implement them. To assist in this process Ministers are asked to agree to the following recommendations.

i) These guidelines should be used as the basis to improve access to trains in Europe.

ii) Steps should be taken through the UIC to ensure that national railways are informed about the content of these guidelines and that, where necessary, commercial, operating and technical advice is available to ensure that they are implemented.

iii) Steps should also be taken through ECMT to ensure that national governments are informed about the contents of these guidelines so that they can work with national railways to facilitate their implementation.

iv) Funding options for the additional costs of implementing these initiatives must be explored jointly by governments and national railways, bearing in mind that for new designs of rolling stock additional costs can be minimised and that even for existing rolling stock the increased potential market is a factor.

v) In order to achieve real progress railways should draw up national action programmes and coordinate these within UIC in such a way that as a whole they form an international action programme.

Finally, Ministers are asked to agree that ECMT requests the UIC to accept these guidelines as a new basis for improving access to railways and to react to the recommendations above.

REPORT ON IMPROVED ACCESS TO TRAINS

Introduction and Background

ECMT has been working actively on improving transport for people with mobility handicaps for several years. Ministers of Transport have strongly supported this work and many countries have made major efforts to improve access and services for people with mobility problems. Ministers have accepted that the issue is an important transport question and concerns a large and growing number of people. Data from several countries show that over 10 per cent of the population have difficulties with transport in varying degrees. Wheelchair users make up only a small part of this percentage.

As part of this work, a technical seminar on access to trains was held in March 1990 and brought together experts from many Member countries. The conclusions of the Seminar were developed by the ECMT Ad Hoc Group on Transport for People with Mobility Handicaps into a Resolution which Ministers adopted in November 1990.

Among the recommendations in the Resolution was the following:

> *"that, for national and international railways, guidelines be drawn up urgently to cover common standards both for specialised equipment, such as lifts (including acceptable wheelchair dimensions, lift platform size, lifting capacity and other safety and operational features) and for access to toilets and other facilities within the train. Such guidelines, which should be drawn up in conjunction with the UIC, should also include an international action programme for implementation; "*

The European railways and their representative organisation UIC have been concerned for many years with improving services for people with mobility handicaps, particularly with the most difficult problem of transporting people in wheelchairs. Significant progress has been made by many networks in recent years. Much work is underway in the overall context of transport for disabled people, especially as regards commercial aspects, production, rolling stock and fixed installations.

Following an exchange of letters between the Secretary General of ECMT and the Secretary General of UIC, an Expert Working Group with representation from UIC and ECMT was set up to begin to implement this recommendation.

The principal objective of this work is to ensure that people with mobility handicaps (including those in wheelchairs) can travel by rail throughout Europe in comfort and dignity, confident that the means used to provide access are compatible between different countries. The purpose of this report is to set out the means by which a disabled person, including one confined to a wheelchair, can board or alight from all Intercity national and EuroCity international trains at all stations throughout Member countries.

This report focuses on implementing the recommendation above. It is however recognised that improving access to railway systems requires action in several areas, including improving railway stations, better information provision and staff training and appropriate ticketing and fare systems. This report does not deal with these aspects of railway services which will need separate action. It is also recognised that action is required to coordinate access between transport modes throughout the transport chain. The ECMT is pursuing this issue in separate initiatives.

The report is divided into two main parts:

Part I. examines mainly the issues in achieving wheelchair access to Intercity national and EuroCity international trains. Other trains, such as rapid or express regional or suburban trains, are not specifically included at this stage, though many of the recommendations are equally relevant to them. Sleeper trains are not treated. Operational considerations such as the carriage of essential medical equipment, e.g. oxygen cylinders, respirators, portable dialysis machines are not treated in this report but will be the subject of separate work. While this part treats mainly access to trains for passengers in wheelchairs, it should be noted that all other passengers, including many who do not have disabilities but who are, for example, travelling with luggage, small children, etc. may benefit from the improvements proposed. It should also be noted that the proposals apply to mainline staffed stations.

Part II. examines access and other improvements for ambulant and other disabled people and for people with sensory impairments.

I. Facilities for passengers in wheelchairs

Access to trains

UIC is about to agree on standard station platform heights of 550 mm and 760 mm for international traffic. To implement these standards will take many years. Therefore it is necessary to establish common standards for access to rolling stock which take account of the differing platform heights existing in different countries and in some cases in different regions of the same country.

There are technical (e.g. standardised European coupling and buffer heights) and other difficulties in applying to mainline trains the low floor technology that is appearing for trams, buses and suburban trains. This is partly due to the problem with platform heights but also includes problems relating to introducing smaller wheel sizes (e.g. extra maintenance, braking problems) and operations (cornering). Research in this area should nevertheless be continued in order to solve these problems.

The limits specified in this document are based on the following parameters for wheelchairs.

a) Dimensions

The ISO standard 7193 issued in 1985 defines maximum dimensions for unoccupied wheelchairs (electric or manual) as follows:

width 700 mm
height 1 090 mm
length 1 200 mm

These dimensions have been adopted for the purposes of this document as the maximum acceptable.

b) Weight

Although there are no standards yet, experience shows that a lift with design capacity of 250 kg gross meets practically all requirements. This limit includes either a heavy electrical wheelchair with occupant or a manual wheelchair with occupant and attendant.

c) Safety

Wheelchairs powered by liquid or vapour fuel may be excluded on safety grounds.

To permit a wheelchair user to enter the train, doorway widths of **at least** 800 mm of clear space must be provided in all new rolling stock. In this context clear space means the minimum dimension after allowing for all mechanisms such as door hinges or lifts. The ISO Standard ISO 7193 points out

"For operational purposes account must be taken of the fact that a wheelchair plus occupant may exceed the dimensions stated above. The user's feet add approximately 50 mm to the overall length. To propel a wheelchair manually by operating the rims of the main wheels, a clearance of not less than 50 mm and preferably 100 mm is needed on both sides."

As a minimum, one door on each side of the accessible carriage in every train set must be equipped to these standards. The accessible carriages should be clearly marked both inside and out with the international access symbol (pictogram). Those using the accessible carriage need to be informed of the correct point on the platform at which to wait.

Where the height difference between platform and train is small, (i.e. not more than about 250 mm) access may be provided by means of a ramp. The ramp may be stowed either on the train or on the platform. The width of the ramp should match the door widths and may taper towards the top. The ramp must be of solid construction and be capable of sustaining a mass of 250 kg. It must have side lips and a non slip surface. Channel ramps are not acceptable, due to the existence of wheelchairs with three wheels.

Where the height difference between platform and train is greater (i.e. more than about 250 mm) access must be provided by means of a lift either fitted to the train or available on the station platform. In either case the lift must be capable of sustaining a mass of 250 kg. For new designs of rolling stock the train mounted lift must have a minimum platform width of 750 mm, and a minimum platform depth of 1 200 mm.

All lifts, whether train mounted or platform based, must be supervised throughout their operation by trained railway staff and must include the following safety items:

Handrail
Auxiliary mechanism (i.e. hand pump)*
Toe protection
Wheelchair stop
Overload protection
Emergency stop button*
Audible warning of lift deployment*
Non-slip platform surface

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* for powered lifts

Boarding and alighting time must be consistent with operational practices on each railway network. A code of practice on safe working procedures must be drawn up by individual railways and staff trained in its use.

For existing rolling stock, every effort should be made to adopt accessible facilities, particularly where current designs will continue in production over a number of years. It is recognised that in some cases there may be design or operational constraints or significant additional costs. Limited doorway width is likely to be one such constraint. Where facilities fall short of the standards recommended for new design, the limitations must be made clear to disabled people before travelling, through information in timetables and by other appropriate means.

Special attention should be paid to providing an effective information chain so that staff and equipment can be organised for boarding and alighting safely and in good time. Wheelchair passengers must have the assurance that they will be given assistance at destination or interchange stations. Notification must, in particular, be assured in international traffic, if necessary by a central office on each network.

Common standards for access to toilets and other facilities within the train

UIC leaflet 565-3 of 1.1.1987 sets out guidelines for the layout of passenger coaches suitable for carrying people in wheelchairs. The following points supplement those guidelines.

Anchoring of wheelchairs within trains is not considered necessary but wheelchairs must be capable of being immobilised (e.g. by applying brakes on a manual wheelchair or engaging neutral on an electric wheelchair).

In the future Intercity and EuroCity trains must progressively be equipped in such a way that they have at least one coach of new design in which accessible toilet facilities have been installed. This should be located adjacent to the door equipped for wheelchair access and the compartment in which wheelchair access is provided. Similar facilities should be provided where possible on existing rolling stock. Enlarged toilet compartments are also of benefit to other passengers (e.g. foldaway nursery table for people with small children). Space should be provided, at least in the accessible carriage, for storage of a folded wheelchair.

For new rolling stock designs, wheelchair users must be able to gain access to the toilet and to the compartment in which they are to travel, without transferring from their own wheelchair. To achieve this, relevant internal doorway widths should be at least 800 mm of clear space. The use of a transfer chair may continue to be necessary on some existing rolling stock designs.

Where catering services are available on the train, access to them must be provided, either by means of a trolley service, special service at the seat or direct wheelchair access to the catering area.

II. Common standards on provision of facilities for people with a sensory impairment and those with walking or other difficulty

To provide easier access to trains for elderly and ambulant disabled people and those who are blind or partially sighted, every single width door should also be equipped with vertical handholds on both sides of the entrance. These should be recessed no more than approximately 100 mm from the outer edge of the carriage and extend from 700 mm to 1 100 mm above platform level. They should be in a clearly contrasting colour with the surrounding area.

There should be a handrail on each side of the flight of steps, parallel to the slope of the steps and 800-850 mm above the noses of the steps. This should extend beyond the nose of the top and bottom steps of the flight, recognising that the handrail should not extend outside the moving train.

Steps into the train must be of non-slip material and individual steps should be no more than 200 mm high and at least 300 mm deep. All steps in a flight of steps should be approximately the same height and depth. Risers should be vertical without overhanging nosings. Step-wells should be provided with adequate levels of lighting, directed into the step-well. Step edges into the train should also be of a clearly contrasting colour.

Door handles and/or door buttons on both the outside and inside of the door must be clearly colour contrasted. Door handles must be of a design that is easy to grip by people with arthritic hands.

Provision must be made throughout the train to enable blind and partially sighted people and those with walking difficulty to move about in confidence and with safety. Transparent or shiny surfaces should be avoided. Clear colour contrasts should be used to delineate handholds and provide warning of obstacles or potential hazards. A sufficient number of handholds should be provided in the train, in particular in carriages, corridors, platforms and toilet areas to enable people to keep their balance whilst moving through the train. These handholds should be of an ergonomically acceptable design and should be usable by people with arthritic hands. Good lighting levels should be used throughout the train.

Audible announcements of station names and other important information must be made for people who are blind or partially sighted. This also benefits other passengers.

For people who are deaf or hard of hearing, solutions must be provided on an increasing number of carriages of every train to alert them to information provided audibly. This may be done, for example, by means of visual display used in parallel with audible announcements, or as a minimum, by the use of a flashing light to alert their attention to the need to seek advice. The carriages concerned should be clearly indicated.

All these improvements should be incorporated as a matter of course in new rolling stock. In many cases it may also be possible to incorporate them during refurbishment of existing rolling stock.

REPORT ON THE INTERNATIONAL SEMINAR ON ACCESS TO TAXIS

(1-2 April 1992, Seville, Spain)

[CEMT/CM(92)10]

COVER NOTE

At the kind invitation of the Spanish Government, ECMT held an International Seminar on Access to Taxis in Seville on 1-2 April 1992.

The Seminar, organised by the Ad-Hoc Group on Transport for People With Mobility Handicaps, was attended by over 100 participants from ECMT Member and Associated Member Countries. These participants included representatives from central and local governments, from taxi companies and their associations, from taxi-drivers, from vehicle manufacturers and from organisations of people with disabilities. The Seminar was the seventh in a series organised by ECMT on special topics in this area. The aim of these seminars is to allow people with mobility handicaps to benefit fully from all the modes of transport.

The attached conclusions were drawn up during the Seminar and were agreed by all participants in the concluding session. This broad consensus represents a solid base for achieving progress.

The meeting agreed that it should be a recognised object of policy and of practical action that the taxi industry should provide its services to all citizens. Attaining the objective requires actions in several domains and will take time. Some of these are set out in the conclusions. Though taxis are largely a local responsibility, central governments have a vital role in creating the right framework for achieving progress through legislation, information and incentives.

Ministers are invited:

-- to note the conclusions of the Seminar;

-- to comment on these conclusions and in particular on the role they see for Governments in improving access to taxi services for people with mobility handicaps;

-- to agree that concrete recommendations on appropriate follow-up action should be presented to the Council as soon as possible.

CONCLUSIONS

1. Taxis are an important part of public transport systems in general and are in particular an essential link in the accessible transport chain.

2. Taxis are unique in being able to provide a 24 hour on-demand, door-to-door transport service.

3. People with mobility handicaps represent a significant additional potential market for taxi operators. Furthermore, with more accessible mainstream transport (bus, train, etc) being introduced, the complementary role of accessible taxis will increase significantly.

4. It is essential that all vehicles can provide easy access to all passengers including the very large number of people who are frail, elderly or who have walking difficulties. Design features such as swivel seats, adequate door apertures, handholds, colour contrasts, etc. make an important contribution.

5. In areas where, for example, a significant proportion of taxi use is through on-street hailing or where standardised vehicle fleets are required, there is, in addition, a strong case for all taxis to be capable of carrying a person seated in a wheelchair. In other areas, for example, where taxi use is predominantly by means of telephone booking or at taxi ranks, this need may be met by a proportion of the taxi fleet (to be determined in the light of local circumstances). However, achieving full access for people in wheelchairs to all taxis will be the long term objective.

6. Designing taxis with full access is more cost-effective than adapting vehicles after construction. There is no one universal solution to technical/design issues. Vehicle manufacturers and designers should be encouraged to address accessibility in the development of all taxis. Design parameters for accessible taxis (based on ISO wheelchair standards) should be drawn up and agreed at a European level. A range of vehicles, suited to different operational and other needs should be developed. It is important, however, to ensure compatibility of access standards between different types of taxi vehicles, other modes of transport, and between areas and countries.

7. Using mainstream taxis to provide for people with disabilities is more cost-effective and socially acceptable than providing separate, specialised taxi services. They are often also more cost-effective than specialised services, health and social services transport.

8. Central, regional and local governments have vital roles to play in enabling people with mobility handicaps to make use of accessible taxi services, particularly by providing direct and indirect subsidies as appropriate. In developing subsidy schemes to enable people with mobility handicaps to use taxis, government (central, regional or local) should take account of the wider economic and social benefits of providing mobility.

9. Central governments should take the lead in gathering and disseminating information and data essential for the development of accessible taxi transport, e.g. vehicle and equipment availability,

ergonomic and human factors data, operational and training guidelines, etc. This information should be disseminated to planners, designers, manufacturers, operators and others involved.

10. Disability awareness training for taxi drivers is an essential element of all taxi systems. People with mobility handicaps should be involved in such training programmes.

11. A partnership between governments (at all levels), people with mobility handicaps and taxi organisations is essential to achieve the right mix of provision and to maximise the potential for people with mobility handicaps to make use of taxi services. In particular, the ECMT should work together with the appropriate international organisations to explore further technical and practical options.

12. Taxi operators should not be put at a competitive disadvantage by a requirement to provide accessible taxis. Governments (national, regional or local) should therefore consider the need for incentives (financial and/or legislative) to encourage the purchase of such vehicles. No barriers (physical, regulatory) should bar taxis which provide a service for people with mobility handicaps from public areas, railway stations, airports, etc.

13. The use of information technology can increase the quality and cost effectiveness of taxi booking and dispatch systems particularly where the service for people with mobility handicaps is integrated within general taxi operation.

REPORT ON THE INTERNATIONAL SEMINAR ON REDUCING TRANSPORT'S CONTRIBUTION TO GLOBAL WARMING

Paris, 30 September - 1 October 1992

[CEMT/CM(92)14]

Background

This international seminar was held at OECD Headquarters in Paris on 30 September and 1 October 1992 in direct response to the Ministerial request in Resolution No. 66 of 1989 that:

> "as a priority, a full range of possible measures that can be taken to reduce transport's contribution to the 'greenhouse effect' be set out together with the costs and practical problems of implementing them".

It was attended by almost 100 government officials and invited experts from ECMT Member and Associated countries, as well as from other international organisations. Ten papers from invited speakers were presented and these will be edited and published by ECMT as soon as possible. The seminar was chaired by Professor K.M. Gwilliam of Erasmus University of Rotterdam. The following summary of the proceedings is based largely on his conclusions at the end of the seminar.

It is structured as follows. The nature of transport's contribution to global warming is first described. The international context is then examined, especially the Framework Convention on Climate Change. Next, there is a discussion of whether or not targets should be set for the transport sector. Following that, the various policy approaches are described and the ideas and issues raised in the seminar are examined. Finally, a summary of the major political issues facing Governments is presented.

It was emphasized repeatedly that global warming poses fundamental and major problems for governments. The Summary of Main Policy Issues shows the radical and highly political nature of the measures required in the transport sector. The scope and perceived need for action, as well as the impact, vary considerably from country to country. Yet there is a strong need for internationally co-ordinated action. These factors make the issue a highly topical and political one.

Summary of main policy issues

1. Current traffic and greenhouse gas emissions trends are incompatible with achieving the objectives set out at Rio of stabilizing emissions. Even achieving these objectives will not halt global warming. For many ECMT countries, emission levels will grow substantially.

2. Few countries have specific emission reduction targets for the transport sector. Though there was not enough specific data, it was believed that achieving target reduction levels in the transport sector might be more costly or more difficult politically than achieving the same targets in other sectors.

3. There are policy packages that can stabilise and then reduce emissions a little. However, these involve important new measures and significantly stronger instruments than have been applied in the past.

4. Transport by road is the major concern, though air traffic was mentioned as a growing and worrying source of emissions.

5. The application of best available technology can improve matters but there is no 'technological fix' just around the corner.

6. Consumers do not have incentives to purchase the most fuel-efficient cars, and instead choose larger, heavier vehicles with more power and speed.

7. Substantial fuel price increases are required to achieve behavioural change. To avoid uncertainty, fuel prices should be increased regularly and steadily.

8. Other instruments are needed also. In particular, the introduction and gradual strengthening of CO_2 emission limits for all vehicles should be considered. Limiting power to weight ratios, as advocated previously, can also make a contribution.

9. Encouraging the use of the more environmentally-friendly means of transport can also help. However, this is limited and can require substantial investment in new rail or public transport capacity.

10. Introducing lower speed limits, using modern technology to achieve better traffic management, improving logistics, combined with information and education programmes can also help but, by themselves, will not make a significant contribution.

11. Changes in attitude are needed. In particular, transport policy-makers need to be convinced that the link between traffic growth and economic growth can be broken.

12. National programmes to reduce CO_2 emissions from the transport sector should be formulated. Transport Ministers should play an active part in drawing up and implementing these programmes; new forms of Ministerial co-operation are needed.

13. Without co-ordinated international action there is a strong risk that even stabilisation of emissions will not be achieved.

SUMMARY OF POINTS RAISED AND FINDINGS

What is transport's contribution?

The global warming phenomenon is the additional warming caused by gases released to the atmosphere through human activity. The main greenhouse gases from transport are carbon dioxide (CO_2), chlorofluorocarbons (CFC's), methane (CH_4) and nitrous oxide (N_2O), as well as ozone precursors such as hydrocarbons (HC's) and NO_x. These gases are emitted from fossil fuel combustion within the operation of transport systems and the manufacture and disposal of equipment, and from the production and processing of fossil fuels. The contribution of transport to the overall effect is estimated at between 20 and 25 per cent for most western European countries. Significantly, the transport sector, which has about a quarter of all CO_2 emissions, has a higher percentage of indirect CO_2 effects than other sectors. Moreover, the transport proportion appears to be rising.

The major transport source of global warming is the CO_2 output of road vehicles. Road transport is responsible for over 80 per cent of the sector's impact in most western European countries, the private car alone contributing about two-thirds of the total impact. The bulk of the greenhouse gas effects of the car are CO_2 (60 per cent), CFC's (20 per cent), and other gases (20 per cent). In lifecycle terms, two-thirds is in vehicle operation. Although the contribution of air transport to CO_2 emissions from transport is only about 10 per cent, the rapid growth of demand for that mode, and other possible strong indirect greenhouse gas effects, make it a matter of considerable concern.

The international context

The Framework Convention on Climate Change, signed in Rio de Janeiro in June 1992 by about 150 countries contains little that is specific to transport. It implies that the developed countries are clearly expected to take the lead and to produce inventories and plans to stabilise emissions at 1990 levels by 2000. All ECMT Members have signed this Convention. The Convention does make provision for a period of growth of emissions in developing countries. So far as transport is concerned, there are special problems in some peripheral or new countries in ECMT. These countries are in a difficult position both because they need more travel to interact with other countries and because, as their wealth grows and they increase market penetration, they will become more transport-intensive in any case.

Macro-economic modelling studies show that achieving large reductions in energy-related CO_2 emissions may lead to a reduction in the rates of annual growth of world GDP of from close to 0 to 0.2 per cent. Technical change, however, may not be reflected very well in these models. Indeed, the promotion of energy-efficient technologies can stimulate industry and economic growth. There is an international cost distribution problem when non-discriminatory means are used. If country-specific contributions are to be sought, the different sectoral effects could also be different.

Transport sector targets or not?

One of the issues of greatest concern is whether there should be sector-specific targets or not. On the one hand, if you adopt a global target and use the instrument of carbon taxes applied to all user sectors, there is no need for a sector-specific target to be set. If, as is often asserted, the economic benefits of freight transport by road are very great then all that would happen is that the market would

ensure that the fuel economies were made in other sectors. On the other hand, targets provide clear yardsticks against which policies can be measured. Setting equal targets for all sectors seems fair but takes no account of the varying costs of achieving them.

In practice, few countries have specific targets for the transport sector. For the Netherlands, targets have been set for 1996, 2000 and 2010, for **both** private cars and freight, for CO_2, CO and Hydrocarbons. Denmark also has targets on CO_2 which are different from other sectors, on the grounds that reductions would be more difficult to achieve for transport than for other sectors. More commonly, however, either there are no specific transport sector targets, or, as in Sweden and the U.K., the emphasis is on instruments. In Norway no sector-specific goals are applied, but policy is based on a cost-effectiveness approach.

How do trends and targets compare?

There was clear agreement that current trends and long-term aspirations for CO_2 emissions are not consistent, and thus that a strong policy initiative is required. In the particular context of unification and liberalisation in Germany, the former eastern part had lower overall levels of traffic and a more favourable modal split in global-warming terms. The trends and forecasts after unification show CO_2 emissions increasing by about 140 per cent in the east and by 24 per cent in the west by 2005. The European implications of liberalisation and economic growth are pessimistic from the standpoint of stabilizing or reducing CO_2 emissions. Even with reasonably restrictive policy assumptions, a study for the EC forecast emissions in 2000 at 2 per cent in excess of 1990. Only very stringent policies would actually reduce emissions.

Some more optimistic views were expressed about the possibility of achieving current targets. In a study for the EC, a scenario involving best available technology, enlightened traffic infrastructure and economic incentives together appeared to be capable of arresting the increase of transport generated global warming effects. However, the assumptions in this study about the scale and time-horizon impacts of the non-CO_2 greenhouse gases were questioned. Clearly, further work is required here. There was also uncertainty about the additional infrastructure costs of a massive switch to rail transport. There also appeared to be no allowance for adaptive consumer behaviour in either vehicle size or vehicle kilometrage adjustment as fuel efficiency was increased. Though the assumptions could be questioned, the approach had the merit of allowing the implications of various strategic positions to be more fully explored.

What policy approaches are possible?

Most of the global warming impacts of transport result from the consumption of fossil fuels. They can be addressed by full implementation of current best practice technology, by shifting to less damaging modes of transport, by better organisation of existing transport modes and by reducing the total amount of transport undertaken.

It was agreed that an international strategy will have to use all of these measures. Even with current technology, it is clearly the case that greenhouse gas emissions **could** be arrested if the necessary policies were pursued rigorously enough. However, there are a number of impediments to effective policy implementation, including:

- The conflict with economic liberalism, which appears destined to increase total transport volumes and produce environmentally perverse modal shifts.

- The absence of adequate incentives to convince customers to buy the most fuel-efficient vehicles.

- The experience of continuous growth in mobility over the last half century, which has created high expectations of continued increases.

- Adaptive consumer behaviour, which results in potential environmental benefits being instead taken up by consumers as increases in vehicle size, weight, power, speed, and distances travelled.

- The international prisoner's dilemma through which responsible behaviour is undermined by the fear that other nations may not follow suit.

Overcoming these impediments to progress may be the crux of the problem.

What technological potential is there?

Technology can clearly make some contribution to reducing the problem. Better vehicle design and engine technologies appear to be rapidly capable of securing up to 20 per cent improvement in vehicle fuel efficiency using currently available technologies. CO_2 abatement beyond 20 per cent can only be obtained with higher cost or reduced performance. If lower performance were to be accepted (downsizing of vehicles, control of speeds, etc.) reductions of 50 per cent or more in CO_2 emissions could be achieved with only minor technology development implications.

Those technological measures present the apparent advantage of involving least government intervention and restriction. Unfortunately, the potential environmental improvements may result in further traffic generation through adaptive behaviour by individuals due to the lower cost of operation. Hence technology policy and technological development must be seen as part of a comprehensive strategy for transport and the environment, which must include measures to restrain demand.

Alternative fuels offer a further important potential technological source of reduction of global warming effects of transport. With "conventional technologies" diesel, CNG and LPG have 10-15 per cent lower greenhouse gas emissions than petrol. Methanol and ethanol are possibilities but are expensive to produce. In the longer term, hydrogen produced from natural gas or biomass could reduce CO_2 emissions by 80-90 per cent. The benefits from electric vehicles depend on the electricity generation mix.

How can technology be managed?

In a study for EC of measures to reduce global warming impacts, it was suggested that effective measures to improve car efficiency included CO_2 emission limits, improvement of engine efficiency, driver information devices, improved inspection and maintenance and alternative fuels. CO_2 emission limits could be approached by setting fuel consumption limits for each car weight class, embodying current best practice technology. However, as said above, one of the most difficult problems with

technological solutions is the danger that they will be used, not to reduce global warming impacts, but to increase transport consumption.

In the private vehicle park, engine capacity has been increasing steadily, cars have become more powerful with higher maximum speeds and greater acceleration. For the same car body, there are very substantial differences in fuel consumption according to engine size (up to 40 per cent variations). Driving style for the same car can give 25 per cent difference in consumption. The policy problem is how to prevent such behaviour without completely denying consumers their freedom of choice. The need for constraints on the power/weight ratio was suggested. For the private car, the general consensus appears to be that fiscal measures to increase the cost of fuel are the most powerful weapon in this respect. However, there is also the view that setting standards for CO_2 emissions, or upper limits on maximum speeds is a possible place to start with a regulatory approach.

Perhaps the best possibility to achieve downsizing of vehicles is through linking changes in regulation to the evidence on differences in safety related to vehicle power, etc. Electronic sensors could restrain speed and acceleration. Safety improvements could make downsizing eventually more politically acceptable. The message appears to be that, if there is a will to harness the environmental potential of existing and new technology, a start should be made as soon as possible, through international agreement to control those aspects of behaviour or vehicle capability which can easily be shown to be damaging in environmental or safety terms. In summary, action on other fully recognised externalities such as local air pollution, congestion and safety can all help to reduce greenhouse gas emissions.

More use of fiscal instruments?

The balance of opinion appeared to be that no totally satisfactory technical fix was likely to be available in the near future, and that therefore there would need to be actions on fronts other than that of technological development. At the very least as a precaution, it will be necessary to consider a range of policies for restraining the amount of traffic if the global environmental objectives are to be secured.

Fiscal measures were strongly advocated. In a policy study for Germany, taxation policy options had proved most effective among the traffic management and other options in reducing transport's contribution to global warming. Studies in the Netherlands confirmed this finding. However, the tax increases involved appeared to be very large, and the question is whether such policies are in fact politically feasible. One possible solution to counter public resistance would be to establish and announce long-term real price increase strategies, which would allow people to adjust their behaviour patterns more easily and certainly to a totally new relative price situation.

One commonly quoted weakness of fiscal measures is that the demand elasticities are so low that, with the rates of tax increase deemed to be politically acceptable, the effect would be minimal. Fuel costs remain a relatively small proportion of transport costs, and transport costs in many cases represent a relatively small proportion of total logistics costs. Given all the other current pressures towards road transport intensive logistic systems, changes in fuel taxation should not be expected to reverse current trends.

It would also appear that the income elasticity of demand for transport was high, in both the freight and passenger markets. If, in order to maintain a given fiscal balance, fuel tax increases were accompanied by tax reductions in other sectors, the tax relief might simply be used to continue to buy

transport, even at the higher prices. The fear that fuel price increases would be particularly hard on lower income groups was also a political worry.

People can adjust in a number of ways to accommodate changes in taxation levels. Even if it does not have any significant effect on modal split or on the transport intensity of logistics systems, it certainly would offer a significant incentive to the introduction of environmentally efficient technology. The only period during which the trend towards larger and more powerful private cars has been arrested was in the mid seventies when real fuel prices rose. On the distributional issue, the proportion of income spent on fuel increases with income, so that the immediate effect of a fuel price increase is not obviously or inevitably regressive.

There is already much knowledge about elasticities of potential value in planning and in predicting of the effects of fiscal action. There is growing evidence that longer-term elasticities are significantly higher than the traditionally quoted short term elasticities, in both passenger and freight transport. But the use of price measures continues to be resisted because of the fear that it is a covert way of increasing the total tax burden.

Other fiscal instruments were also discussed. For example, differential taxation rates on vehicle purchase according to fuel consumption give inducements to the purchase of fuel-efficient cars. Tradeable permits might perform a similar function. Despite their current unpopularity in some circles, it would seem sensible to explore the technical details and practical possibilities of such instruments further.

Whether the emphasis should be on reducing car ownership or car use was another topic of discussion in this area. The problem is that once a car is owned the perceived marginal costs are low and it tends to get used for all journeys. The appropriate solution to this is to variabilise all of the taxation, a policy direction which is now gaining acceptance in many countries. The drawback to this, of course, is that it is difficult to reflect in fuel taxation any variability in the costs imposed by vehicle category (such as road wear and tear) that is not directly proportional to fuel consumption.

Can traffic be shifted to other modes?

Many countries rely heavily on policies to encourage the maximum use of alternatives to the truck and the private car. In urban areas, the cost of providing a sufficiently high quality of public transport is one constraint. Crucially, however, improving public transport is seldom enough by itself to attract car users. Greater use of bicycles requires a committed policy including infrastructure investment to improve safety. For freight transport, there is spare capacity on rail, but not everywhere, and enormous investments will be needed if even a small percentage of road traffic is to be attracted to rail or combined transport. In summary, policies to encourage the use of alternative modes can have specific beneficial effects but, in general, are likely by themselves to be quite limited in terms of reducing CO_2 emissions.

Can demand be restrained?

At the heart of the reluctance to restrain transport is the belief that economic growth is inseparably linked with increased consumption of transport. The analogy with the relationship between economic growth and growth of industrial energy consumption is of interest in this context. Until the last decade,

it appeared that the former inevitably implied the latter. During the last decade, however, the link has been broken. An issue which clearly needs to be resolved in the present context is the extent to which transport-sparing industrial structures can be devised. Changes in production technology in the last decade have enabled many products to be manufactured efficiently in smaller production runs. Why should the same technological developments not make it possible to extend decentralised production?

Can attitudes be changed through education and information?

The car has the advantage of comfort, speed, flexibility, privacy, multifunctionality and convenience. The disadvantages appear as externalities and therefore tend to be under-represented in personal choice. The problem is to raise that appreciation in the choice process. There are structural actions such as changing the pay-off structure (fiscal measures), or mutually enforced co-operation (regulations). Various sorts of action may also be undertaken to achieve this, including, in particular, information campaigns.

Measures to influence attitudes have traditionally been unreliable, partly because they have not been strongly and consistently pursued. Action to improve this situation is clearly desirable.

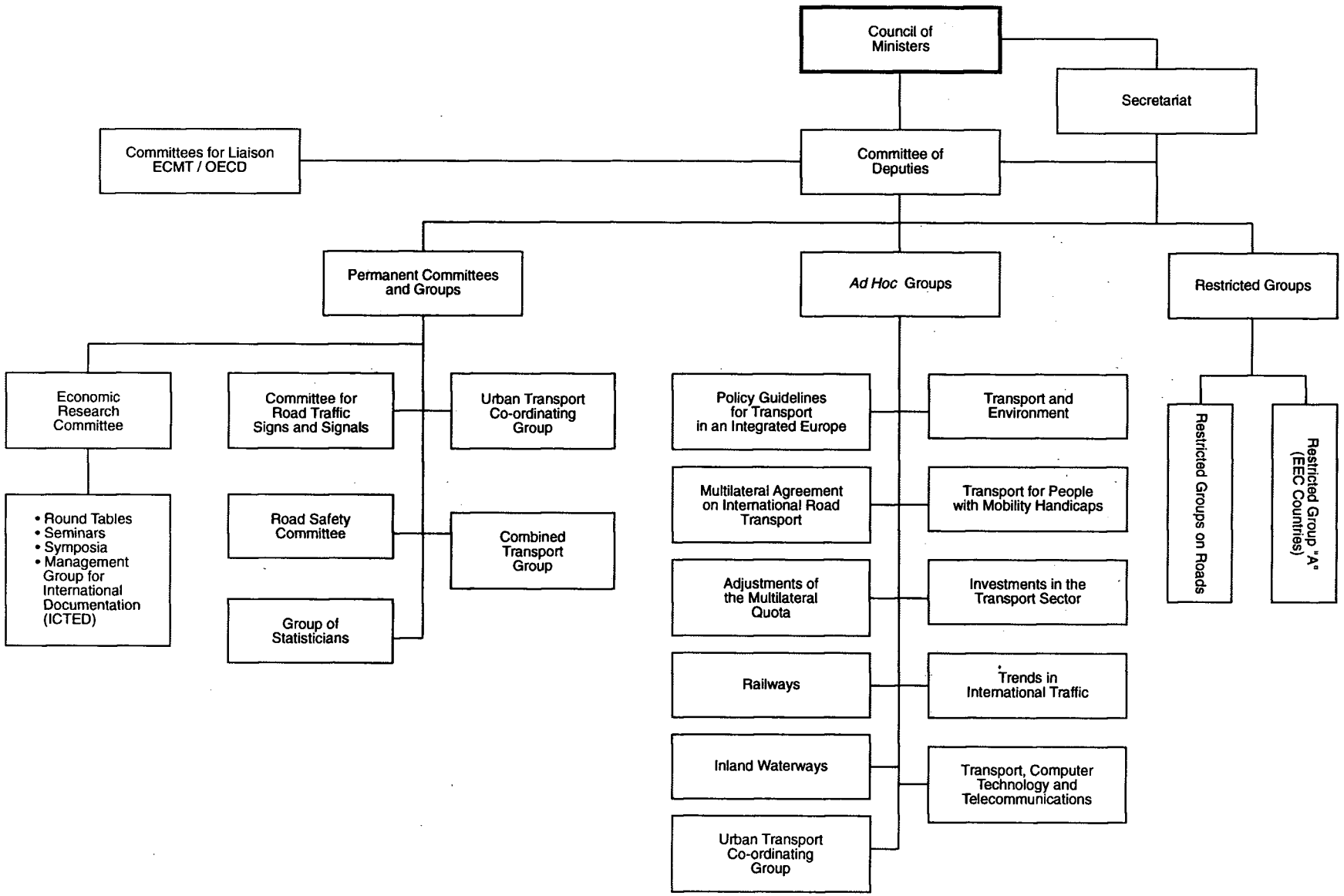
Are institutions adequate?

From the point of view of ECMT, the role of transport ministries in confronting these issues is crucial. In several countries it is clear that there is a tension between transport, economic and environment ministries. Transport ministries have appeared to be centrally concerned with economic management of the sector, and have not been considered to be taking the environment seriously.

The consequence of this would appear to be that, whilst policy on technological standards is being given substantial attention, and relied on heavily, the general transport policy instruments are relatively neglected. Adaptive consumer behaviour, which can negate the potential benefits of technological instruments, can only be effectively confronted in general transport policy terms. Consequently, it would seem necessary for transport ministries to recognise and act upon the whole range of complicated interactions, and particularly to grasp the nettle of redirecting transport policy to incorporate environmental objectives fully.

ANNEXES

Annex 1. ECMT ORGANISATION CHART AS FROM JANUARY 1992



Annex II

LIST OF OFFICERS OF THE ECMT

OFFICERS OF THE COUNCIL OF MINISTERS

In accordance with the provisions of Article 1 a) of the Rules of Procedure, the Council of Ministers elected the following Officers at its session on 26 November, 1992.

Chairman (Netherlands)

Mrs. J.R.H. MAIJ-WEGGEN, Minister for Transport and Communications

First Vice-Chairmanship (France)

Mr. J.C. BIANCO, Minister for Equipment, Housing and Transport

Second Vice-Chairmanship (Austria)

Mr. V. KLIMA, Minister of Public Economy and Transport

OFFICERS OF THE COMMITTEE OF DEPUTIES

In application of Article 3 of the rules of Procedure, the Officers of the Committee are the following:

Chairman (Netherlands)

Mr. J.M. VAN HEEST, Deputy Director for International Transport Policy

First Vice-Chairmanship (France)

Mr. J. ROBERT, Sous-Directeur des Transports Terrestres

Second Vice-Chairmanship (Austria)

Mr. J. HANREICH, General Director, Federal Ministry of Public Economy and Transport

Annex III

LIST OF DELEGATES AT THE ATHENS AND PARIS SESSIONS

Austria

Mr. V. KLIMA	Minister of Public Economy and Transport
Mr. G. HANREICH	Director-General Federal Ministry of Public Economy and Transport
Mrs. M-E. PÖSEL	Director Federal Ministry of Public Economy and Transport

Belgium

Mr. R. BAELDE*	Secrétaire Général Ministère des Communications et de l'Infrastructure
Mr. M. VERSLYPE	Chef de Cabinet Ministère des Communications et de l'Infrastructure
Mr. P. FORTON	Directeur Général a.i. Ministère des Communications et de l'Infrastructure
Mr. J-C. HOUTMEYERS**	Directeur Secrétariat Général Ministère des Communications et de l'Infrastructure

Bulgaria

Mr. A. ALEXANDROV**	Minister of Transport
Mr. P. TZALKOV**	Special Advisor to the Minister of Transport
Mr. I. PIROVSKI**	Deuxième Secrétaire, Ambassade de Bulgarie à Paris

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Croatia

Mr. I. MUDRINIC**	Minister Ministry of Maritime Affairs Transport and Communications
Mr. R. SOBOLOVIC**	Deputy Minister Ministry for Maritime Affairs Transport and Communications

Czechoslovakia

Mr. J. NEZVAL*	Minister of Transport Federal Ministry of Transport
Mr. P. VYBIRAL**	Deputy Minister of Transport Head of Delegation Federal Ministry of Economy, Transport Division
Mr. D. VALASEK	Deputy Director for International Relations Federal Ministry of Economy, Transport Division
Mr. J. NOVAK*	Deputy-Director of the Bureau of the Minister Federal Ministry of Transport
Ms. M. PAVKOVA	Delegate in the International Department Federal Ministry of Economy, Transport Division
Mr. M. PISE**	First Secretary of the Embassy of the CSFR in Paris

Denmark

Mr. K. IKAST*	Minister of Transport
Mr. N. REMMER**	Head of Delegation, Ministry of Transport
Mr. B. TARP	Head of Division Ministry of Transport
Ms. G. HOFDAHL*	Secretary to the Minister
Ms. N. HOLST-CHRISTENSEN*	Head of Section, Ministry of Justice

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Estonia

Mr. A. MEISTER**	Minister of Transport and Communications
Mr. N. TÖNNISSON**	Chancellor Ministry of Transport and Communications

Finland

Mr. O. NORRBACK**	Minister of Transport and Communications
Mr. J. KORPELA	Secretary-General Ministry of Transport and Communications
Mrs. U.M. KUKKONEN*	Personal Adviser to the Minister
Mr. M. LEHTINEN	Counsellor, International Affairs Ministry of Transport and Communications
Mr. R. GRAHN**	Political Aide to the Minister of Transport and Communications
Mrs. M. ASPELUND**	Second Secretary Permanent Delegation of Finland to the OECD

France

Mr. J-L. BIANCO**	Ministre de l'Equipement, du Logement et des Transports
Mr. C. GRESSIER	Directeur des Transports Terrestres Ministère de l'Equipement, du Logement et des Transports
Mr. J. ROBERT	Sous-Directeur pour les Affaires Européennes Suppléant
Mr. G. DOBIAS**	Directeur de l'INRETS
Mr. M. COMBES**	Conseiller Technique Ministère de l'Equipement, du Logement et des Transports

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France (continued)

Mrs. M.J. RAMBEAU	Chargée de Mission pour les Affaires Internationales à la Direction de la Sécurité et de la Circulation Routières Ministère de l'Equipement, du Logement et des Transports
Mr. A. CORREIA**	Chargé de Mission DTT Ministère de l'Equipement, du Logement et des Transports

Germany

Mr. D. SCHULTE*	Parliamentary Secretary of State Federal Ministry of Transport
Mr. H. SANDHÄGER*	Director General Federal Ministry of Transport
Dr. I. JOERSS**	Director Federal Ministry of Transport
Mr. E. VOLK	Counsellor Federal Ministry of Transport
Mr. W. BÄUMER**	Counsellor Permanent Delegation of Germany to the OECD
Ms. U. ROGMANS**	Permanent Delegation of Germany to the OECD

Greece

Mr. N. GELESTATHIS	Minister of Transport and Communications
Mr. K. STEFANAKOS*	Secretary-General
Mr. D. BEKIARIS*	Director-General
Mr. D. TSAMBOULAS	Counsellor to the Minister Ministry of Transport and Communications
Mr. D. GERMIDIS	Ambassador Permanent Representative of Greece to the OECD

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Greece (continued)

Mr. E. VASSILAKOS*	Counsellor Permanent Representation EC Brussels
Mr. G. PATSIAVOS*	Head of International Affairs Division
Mr. G. KASFIKIS**	Counsellor Permanent Delegation of Greece to the OECD
Mrs. A. LIVIERATOU*	Delegate

Hungary

Mr. C. SIKLOS*	Minister of Transport, Telecommunications and Water Management
Ms. E. MOLNAR	Director General for International Affairs and Media Ministry of Transport, Telecommunications and Water Management
Mr. G. GALDI	Desk Officer Ministry of Transport, Telecommunications and Water Management

Ireland

Mrs. M. GEOGHEGAN-QUINN*	Minister of State Department of Tourism, Transport and Communications
Mr. J. LUMSDEN	Assistant Secretary Department of Tourism, Transport and Communications
Mr. J. FARRELLY*	Assistant Secretary Department of Environment
Mrs. F. O'DEA*	Assistant Private Secretary Department of Transport

Italy

Mr. G. TESINI**	Ministre des Transports
Mr. A. VINCI GIACCHI**	Conseiller Diplomatique Ministère des Transports

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Italy (continued)

Mr. L. LAURETTI	Conseiller au Cabinet du Ministre Ministère des Transports
Ms. L. CIAMPOLI*	Attaché Ministère des Transports
Mr. G. ULIVI**	Secrétaire Ministère des Transports
Mr. A. BLAFFARD**	Attaché Relations Institutionnelles Ministère des Transports

Latvia

Mr. A. GUTMANIS**	Minister of Transport
Mrs. I. VERPAKOVSKA**	Assistant to the Minister of Transport
Mr. Z. PRIEDE**	Director of Department for Structural Policy and Economics Ministry of Transport
Mr. A. CAUNITIS**	Head of Department of Foreign Relations Ministry of Transport

Lithuania

Mr. J. BIRZISKIS**	Minister of Transport
Mrs R. LIUTKEVICIENE**	Consultant to the Minister Ministry of Transport

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Luxembourg

Mr. R. GOEBBELS	Ministre de l'Economie, des Transports et des Travaux Publics
Mr. J. MORBY	Premier Conseiller de Gouvernement Ministère des Transports
Mr. P. BASTENDORFF	Inspecteur principal 1er en rang Ministère des Transports

Netherlands

Mrs. J.R.H. MAIJ-WEGGEN	Minister of Transport and Public Works
Mr. J.M. VAN HEEST	Deputy Director, International Transport Policy Ministry of Transport and Public Works
Mr. E. WESTERHOUT**	Head of Protocol Ministry of Transport, Public Works
Mr. R. ÜBELS	Counsellor Ministry of Transport and Public Works
Mr. F.M. VRINS*	Adviser
Mr. J. VAN AGGELEN**	First Secretary, Permanent Delegation of the Netherlands to the OECD

Norway

Mr. K. OPSETH**	Minister of Transport and Communications
Mrs. K.M. BRUZELIUS	Secretary-General Ministry of Transport and Communications
Mr. P. CHAUVIN*	Counsellor, Ministry of Transport and Communications

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Norway (Contd.)

Mr. T. ENDRESEN**	Senior Executive Officer Ministry of Transport and Communications
Mrs. E. HJELLE**	Executive Officer Ministry of Transport and Communications
Mr. A. LOTHE*	Special Counsellor (Transport) Permanent Representation EC Brussels

Poland

Mr. E. WALIGORSKI*	Minister of Transport and Maritime Economy
Mr. Z. JAWORSKI**	Minister of Transport and Maritime Economy
Mr. A. KALINKOWSKI	Director, Department of International Cooperation Ministry of Transport and Maritime Economy
Mr. M. NOWAK**	Director Ministry of Transport and Maritime Economy
Mr. J. LISIECKI**	Attaché Embassy of Poland, Paris

Portugal

M. J. ANTAS*	Sécretaire d'Etat aux Transports Ministère des Travaux Publics, des Transports et des Communications
M. J.M. SILVA RODRIGUES	Directeur-Général des Transports Terrestres Ministère des Travaux Publics, des Transports et des Communications
Mme L. SEQUEIRA	Sous-Directeur Général Ministère des Travaux Publics, des Transports et des Communications

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Romania

Mr. T. BASESKU*	Minister of Transport
Mr. P. TEODORU**	Minister of Transport
Mr. T. PUIU	Director

Slovenia

M. M. KRANJC**	Ministre des Transports et des Communications
Dr. S. HANZEL**	Ministre Adjoint Ministère des Transports et des Communications
M. B. LUKMAN**	Chargé d'Affaires de la Slovénie en France

Spain

M. M. PANADERO*	Secrétaire Général des Transports Ministère des Travaux Publics et des Transports
M. B. VAQUERO	Directeur Général des Transports Terrestres Ministère des Travaux Publics et des Transports
M. L. IMEDIO	Directeur des Programmes de Relations Internationales Ministère des Travaux Publics et des Transports
M. L. ALONSO**	Sous-Directeur Général Ministère des Travaux Publics et des Transports
M. C. IBARZ*	Délégué

Sweden

Mr. M. ODELL*	Minister of Transport and Communications
Mr. P.E. JOHANSSON*	Under-Secretary of State Ministry of Transport and Communications
Mr. R. WIBERG	Director Ministry of Transport and Communications

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Sweden (continued)

Mr. P.G. BLIXT	Assistant Under-Secretary Ministry of Transport and Communications
Mrs. B. CADDEO*	Head of Section

Switzerland

Mr. A. OGI**	Conseiller fédéral, Chef du Département des Transports, des Communications et de l'Energie (DTFCE)
Mr. J.C. SCHNEUWLY	Suppléant, Chef de la Section des Organisations Internationales, Office Fédéral des Transports
Mr. L. ZÜND*	Suppléant, Vice-Directeur, Division Principale de la Circulation Routière,
Mr. A. RAMSEYER**	Suppléant, Directeur, Division Principale de la Circulation Routière Office Fédéral de Justice et de Police
S.E.M. E. ROETHLISBERGER**	Ambassadeur Extraordinaire et Plénipotentiaire de la Suisse auprès de l'OCDE
Mr. F. BÜRKI**	Directeur de l'Office Fédéral des Transports
Mr. B. PERISSET*	Chef de Section, Office Fédéral de Justice et de Police
Mr. R. ZIMMERMANN	Adjoint Scientifique, Office Fédéral des Transports
Mr. C. CLEMENT**	Chef du Service de Presse du DFTCE Office Fédéral des Transports
Mr. S. AESCHIMANN**	Collaborateur personnel du Chef du DFTCE
Mr. D. FURGLER**	Premier Secrétaire Délégation permanente de la Suisse auprès de l'OCDE

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Turkey

Mr. Y. TOPÇU**	Minister of Transport and Communications
Mr. K.T. DERICIOGLU*	Under-Secretary Ministry of Transport and Communications
Dr. H.Y. YIGITGÜDEN**	Deputy Under-Secretary of State, Ministry of Transport and Communications
Mr. Y. DINÇER	Deputy Under-Secretary Ministry of Transport and Communications
Mr. T. ISKIT**	Ambassador Extraordinary and Plenipotentiary of Turkey to the OECD
Mr. T. GÜNSOY**	General Director of TCDD (Turkish Railways)
Mr. Ö. GÜCÜK**	Third Secretary Permanent Delegation of Turkey to the OECD
Mr. S. ALPER**	Interpretor

United Kingdom

Mr. K. CARLISLE*	Minister for Roads and Traffic, Department of Transport
Lord CAITHNESS**	Minister of State for Transport
Mr. K.G. McINNES**	Ambassador Permanent Delegation of the United Kingdom to the OECD
Mr. A.J. HUNT	Assistant Secretary, International Transport Department of Transport
Mr. J. JINKS	Principal, European Division Department of Transport
Mr. C. JONES**	Private Secretary to Lord Caithness Department of Transport
Mr. T. CRADDOCK**	First Secretary, Permanent Delegation of the United Kingdom to the OECD

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Yugoslavia

Mr. P. RADENOVIC*	Federal Deputy-Secretary Federal Secretariat for Transport and Communications
Mr. P. NOVAKOVIC*	Counsellor, Federal Secretariat for Transport and Communications
Mr. M. MILUTINOVIC*	Ambassador to Greece

ASSOCIATED MEMBER COUNTRIES

Australia

Mr. J. NEIL*	Head of Delegation
Ms. L. HINGEE*	First Secretary, Permanent Delegation of Australia to the OECD
Mr. B. CROFTS**	First Secretary, Permanent Delegation of Australia to the OECD

Canada

Mr. E. CHERRETT*	Director General (Policy and Coordination) Ministry of Transport

Japan

Mr. S. IWATA*	Deputy Director-General of Railway Bureau, Ministry of Transport
Mr. M. HASHIMOTO**	Director for International Planning Division Transport Policy Bureau Ministry of Transport
Mr. T. NAKATA	First Secretary Permanent Delegation of Japan to the OECD
Mr. K. ASAHI*	Director for Policy Planning Ministry of Construction

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Japan (continued)

Mr. K. INABA*	Delegate
Mr. H. KUBO*	Delegate

United States

Mr. G.E. CARMICHAEL*	Head of Delegation, Railroad Minister U.S. Department of Transportation
Mr. T.F. FERRARA*	Deputy, U.S. Department of Transportation
Mrs. R. LAYTON**	Commercial Advisor, Permanent Delegation of the United States to the OECD

OBSERVER COUNTRIES

Morocco

Mr. R. EL RHEZOUANI**	Ministre des Transports
Mr. H. OTTMANI	Directeur Ministère des Transports
Mr. L. ABDELAZIZ*	Ambassadeur du Royaume du Maroc en Grèce, Ministère d'Etat Chargé des Affaires Etrangères et de la Coopération
Mr. A. EL BIAZ*	Directeur Général Office National des Aéroports

Russia

Mr. V. ARTIOUKHOF*	Vice-Ministre Ministère des Transports de la République de Russie
Mr. A. SOUVOROV**	Vice-Ministre Ministère des Transports de la République de Russie
Mr. Y. SEROV	Chef du Service du Protocole Ministère des Transports de la République de Russie

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SPECIAL GUEST

Mr. J.C. TERLOUW*	Honorary Secretary-General of ECMT

INTERNATIONAL ORGANISATIONS

Commission of the European Communities

Mr. J. ERDMENGER	Directeur Direction Générale des Transports (DG VII)
H.E. Mr. R. PHAN VAN PHI**	Ambassadeur, Chef de la Délégation Permanente de la Commission des Communautés Européennes auprès de l'OCDE
Mr. D. STASINOPOULOS	Administrateur principal Direction Générale des Transports (DG VII)

Commission of the European Communities -- DRIVE Exhibition

Mr. F. KARAMITOS*
Mr. J. SIOTIS*
Mr. L. SELLES*

Council of the European Communities

Mr. E. POZZANI*	Head of Delegation

United Nations Economic Commission for Europe

Mr. G. HINTEREGGER	Executive Secretary
Mr. J. CAPEL FERRER	Director of the Transport Division

ECMT SECRETARIAT

Mr. G. AURBACH	Secretary-General
Mr. J. SHORT	Deputy Secretary-General
Mr. A. RATHERY	Principal Administrator
Mrs. P. COQUAND**	Administrator
Mrs. S. FOUVEZ	Administrator
Mr. M. VIOLLAND**	Administrator

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Annex IV

PARLIAMENTARY ASSEMBLY OF THE COUNCIL OF EUROPE

FORTY-THIRD ORDINARY SESSION

RESOLUTION 977 (1992)[1] on European transport problems

1. The Assembly has taken note of the 36th and 37th annual reports of the European Conference of Ministers of Transport (ECMT) (Docs. 6295 and 6523, covering 1989 and 1990 respectively), the report by its Committee on Economic Affairs and Development (Doc. 6539) and the opinion presented by its Committee on the Environment, Regional Planning and Local Authorities (Doc. 6551).

2. The completion of the European Community's internal market, the recently concluded agreement on a European Economic Area among Community and EFTA countries, and the political reform process in Central and Eastern Europe will together contribute to a rapid increase in European trade and, hence, to additional strains on the continent's already saturated transport systems, especially its roads.

3. Investments in the transport sector have not in recent years kept up with the explosive increase in traffic volume, especially on roads, and the transport infrastructure of Central and Eastern Europe requires urgent improvements if economic progress is to be ensured.

4. The environmental problems caused by transport, in particular road vehicles, pose increasingly strict limits on continued expansion and call for the introduction of more environmentally-friendly lorries and cars, a reorientation from road traffic to rail or combined (road/rail) transport, greater consideration of the congestion and pollution caused by air traffic, and reduction of the distance between producers and consumers in different ways (in particular through development of systems of logistics and physical distribution, or decentralisation of production).

5. The expansion of transport by land will increasingly be held back by the scarcity of land which can be made available for rail and particularly for road infrastructure, on account of European society's other needs for space and of the limited surface areas and amounts of land, which cannot be increased.

6. The Assembly welcomes the conclusion in October 1991, between the European Community, on the one hand, and Austria and Switzerland, on the other, of an agreement on Alpine transit, and considers that it is an important step towards realising the goals mentioned in paragraph 4 above, especially in its measures to protect the environment and to favour rail and combined transport.

7. The Assembly also welcomes the opening, expected in 1992, of the Rhine-Main-Danube inland waterway, which will facilitate East-West trade and which, if enlarged to connect Europe's remaining waterways, could considerably relieve pressure on roads and rail.

8. In conclusion, the Assembly calls on the member states of the ECMT and of the Council of Europe:

i. to pursue vigorously the decisions taken or planned by the Ministerial Council of the ECMT in order to improve Europe's transport structure -- and in particular its intention to intensify co-ordination of activities among member states and with other European countries;

ii. to realise as rapidly as possible the objectives set out in the Prague Declaration, adopted at the European Community's Pan-European Transport Conference held in that city in October 1991, and in particular those of a concerted European transport policy and increased assistance to Central and Eastern Europe for a modernisation of its transport infrastructure;

iii. more particularly, to continue to expand relations between ECMT members and countries in Central and Eastern Europe, and to enhance assistance to them for building up their transport systems and in the spheres of information technology and telecommunications;

iv. to achieve a tangible improvement of Europe's transport infrastructure through an internationally co-ordinated investment programme and, in so doing, to give priority to railways over roads;

v. to pay special attention to the potential contribution by "piggy-back" transport (lorries on trains) and "combined" (rail/road and possibly maritime) transport -- the latter presupposing, *inter alia*, an international harmonisation of container standards;

vi. to support the ECMT in its effort to increase road safety;

vii. to reduce the waste of resources caused by so-called "empty returns" by lorries, in particular by establishing internationally connected computerised information systems and by increasing the possibility for lorries to take on freight abroad (cabotage);

viii. to ensure that a situation does not arise in which increased competition in the road transport sector leads to a relaxation in safety standards (such as unsafe vehicles or vehicles carrying dangerous goods, or excessive working hours of drivers) and instead to pursue their efforts to conclude a revised, ECMT-wide European agreement concerning the work of crews engaged in international road transport;

ix. to promote a high-speed train network as an alternative to road transport, provided that environmental standards are met;

x. to encourage, in the spirit of the Assembly's Resolution 964 (1991) on European air transport policies, closer co-operation between the ECMT and the European Civil Aviation Conference (ECAC), since Europe's overall transport problems, including related environmental consequences, can only be satisfactorily resolved if approached in an overall manner;

xi. to avoid having any division of Europe arise in the transport sector as a result of the European Community's plan to complete its internal market by 1993, and for this purpose to strengthen the role of the ECMT;

xii. to place the creation of transport infrastructure in the context of comprehensive planning for Europe as a whole, and to take the European regional planning blueprint as a spatial reference, in the knowledge that care must be taken to use land sparingly and to achieve balanced and lasting development of all the regions of Europe, and, in general, to reconcile any future increase in European transport with the protection of the environment, in itself a condition for human survival.

Note

1. Assembly debate on 6 February 1992 (25th Sitting) (see Doc. 6539, report of the Committee on Economic Affairs and Development, Rapporteur: Mr Miville); and Doc. 6551, opinion of the Committee on the Environment, Regional Planning and Local Authorities, Rapporteur: Mr Dimmer).
Text adopted by the Assembly on 6 February 1992 (25th Sitting).

Annex V

REPORT TO THE GOVERNMENTS OF THE SIGNATORY COUNTRIES OF THE EUROFIMA AGREEMENT

Fiscal year 1992

If 1992 could be characterised, it would certainly be a troublesome year: political and economical disillusionment, confidence crisis... In the western world, particularly in Europe, problems multiplied and were intensified. They render the present disturbing and the future uncertain: the countries in the East continued to disintegrate into multiple and often hostile national entities while western countries suffered a lack of economical revival. The recovery of the global economy, much awaited and much predicted, did not really materialize. Vulnerable themselves, the German and Japanese locomotives lost their steam.

Here and there speculative bubbles burst, leading primarily in Japan to devaluation in stock exchange and real estate assets. Over-committed in the crisis-ridden real estate market, financial institutions substantially reduced loans intended for consumption and investment. This aggravated the problem of unemployment induced by monetary tensions in Europe and particularly within the European Monetary System.

In this difficult environment, EUROFIMA increased its efforts in raising a record financial volume of 5 535 million Swiss francs, 734 of which were attributed to the early redemption of five issues which were refinanced at better terms. The net amount of new financings at the disposal of the railways reached 4 785 million Swiss francs, or an increase of 34.2 per cent over the previous year.

The funds were used to finance, for twelve member railways or affiliates, 456 main-line locomotives, 113 shunting locomotives, multiple-unit trains (626 motor units and 541 trailer cars), 1 087 passenger cars and 8 681 freight cars, 3 744 of which are equipped with bogies.

Total assets reached nearly 25 billion Swiss francs. Even in spite of greater amortizations and provisions, the results obtained are considerably better than last year's figures: distributable profit reached 36.94 million Swiss francs, or an increase of 1.96 million Swiss francs over 1991. These results allow EUROFIMA to distribute a dividend on its paid-in capital of 12.4 million Swiss francs and to allocate a substantial amount to the reserves.

Financings

Long- and medium-term funding reached an equivalent of 5 659 million francs based on exchange rates on the payment dates. At exchange rates prevailing on the balance sheet date, a total of 5 535 million francs results. The financings consist of:

-- Public and private issues floated in Switzerland, Germany, Luxembourg, Austria, Spain and Australia (global bond), as well as in the Euromarket, corresponding to a total equivalent of 4 816 million francs;

-- Medium-term notes corresponding to the equivalent of 342 million francs;

-- Loans representing 377 million francs.

The total amount is divided as follows: 20 per cent in ECU, 15 per cent in Deutsche Mark, 11 per cent in Swiss francs, 11 per cent in US dollars, 7 per cent in Spanish pesetas, 6 per cent in Australian dollars, 5 per cent in Italian lira, 5 per cent in French francs, 5 per cent in Dutch guilders and 15 per cent in various other currencies.

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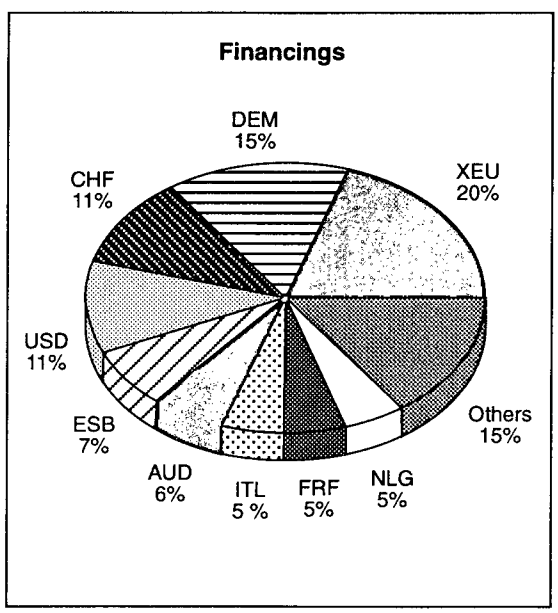

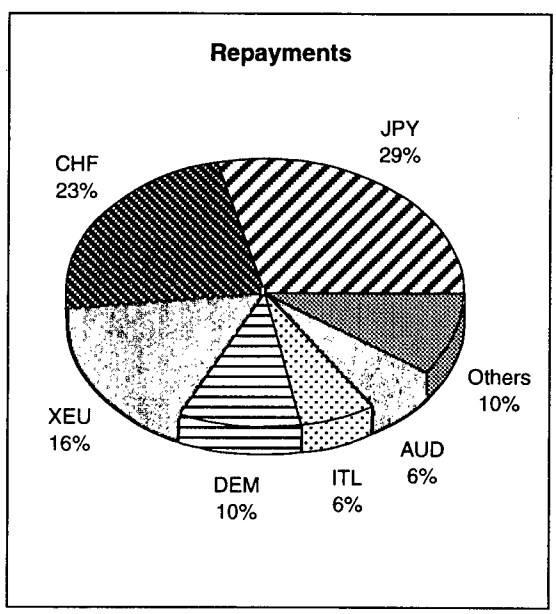

Repayments

At rates on the balance sheet date, repayments correspond to an equivalent of 2 053 million francs, divided among the following currencies: 29 per cent Japanese yen, 23 per cent Swiss francs, 16 per cent ECU, 10 per cent Deutsche Mark, 6 per cent Italian lira, 6 per cent Australian dollars and 10 per cent various other currencies. Of the total amount 734 million Swiss francs may be attributed to early redemptions.

Rolling stock financed

In the following chart, the rolling stock financed and the total amounts in Swiss francs involved are given for each railway

Country	Railway	Locomotives			Multiple-unit trains			Cars	Freight cars		Amount of financings (in million francs)
		Main line		Shunting	Motor units		Trailer cars		with individual axles	with bogies	
		diesel	electric		diesel	electric					
Germany	DB				110	15	135	20	492	1 567	698
France	SNCF	11	229	102		20	86	786		12	887
Italy	FS		50					72	322	1 232	532
Belgium	SNCB		49			120	72		2 542	1 835	949
Netherlands	NS	64	40			1	3	104			676
Spain	RENFE		5	1	276	12	174	70		71	516
Sweden	SJ					7	35			200	155
Luxembourg	CFL					24					46
Austria	OeBB		8	10	9			34	13		187
Portugal	CP					18	32				59
Greece	CH				14		4	1	55		40
Switzerland	HUPAC									340	40
TOTAL		75	381	113	409	217	541	1 087	3 424	5 257	4 785

Portion of the member railways' rolling stock investments financed by EUROFIMA 1988-1992 (equivalent in million Swiss francs)

Year / Railway	1988	%	1989	%	1990	%	1991	%	1992	%	1988-1992	%
DB	979[1]	75	1 139	134	644	45	821	48	698	45	4 281	63
	1 314[2]		849		1 416		1 698		1 552		6 829	
SNCF	360	44	448	44	353	32	655	60	887	56	2 703	48
	820		1 023		1 109		1 097		1 573		5 622	
FS	597	35	268	21	480	51	840	99	532	95	2 717	51
	1 699		1 289		946		847		561		5 342	
SNCB	52	78	66	140	168	168	335	335	949	572	1 570	327
	67		47		100		100		166		480	
NS	84	57	223	77	102	59	166	87	676	149	1 251	100
	147		291		173		190		454		1 255	
RENFE	250	198	410	145	402	86	358	41	516	59	1 936	74
	126		282		467		872		873		2 620	
JZ	58	94	80	93	43	93	15		--	--	196	--
	62		86		46		--		--		194	
SJ	10	8	75	139	20	20	52	19	155	378	312	53
	119		54		98		278		41		590	
OeBB	106	58	159	63	278	64	195	49	187	52	925	57
	182		251		437		394		359		1 623	
CP	53	120	69	173	30	49	60	42	59	45	271	64
	44		40		61		144		132		421	
CH	--	--	--	--	65	82	50	85	40	98	155	87
	--		--		79		59		41		179	

1. Amount furnished by EUROFIMA for acquiring new rolling stock or for refinancing used rolling stock
2. Railways' investments in new rolling stock according to their figures

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