



European Communities

EUROPEAN PARLIAMENT

WORKING DOCUMENTS

English Edition

1986-87

2 April 1986

SERIES A

DOCUMENT A 2-17/86

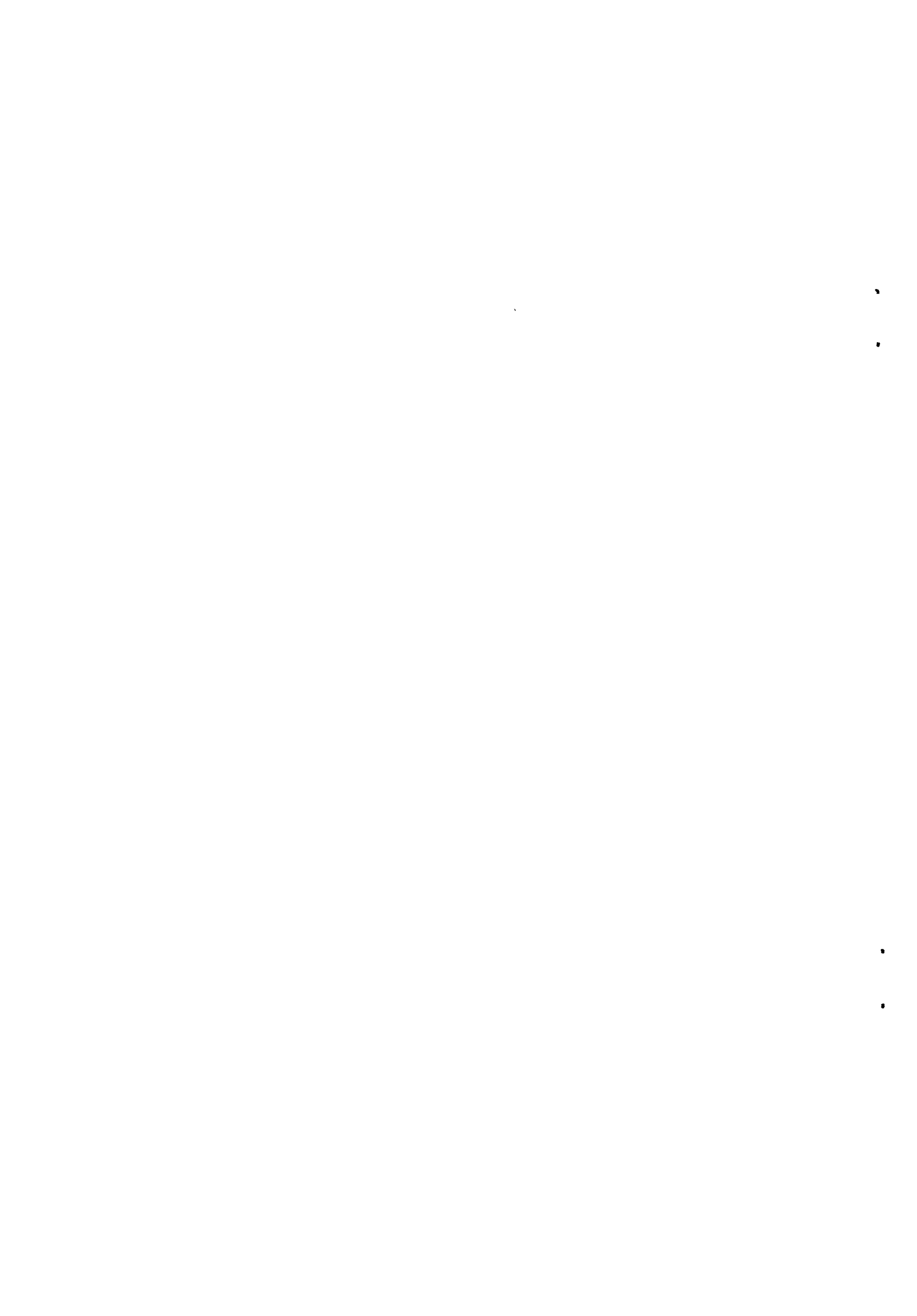
REPORT

drawn up on behalf of the Committee on Transport
on the creation of integrated transport centres

Rapporteur: Mr A. CAROSSINO

WG(VS1)3197E
It.-pm/jil

PE 103.240/fin.



At its sitting of 12 December 1985, the European Parliament referred the motion for a resolution, tabled by Mr CHANTERIE on the construction and planning of integrated transport centres (Doc. 2-1151/84) pursuant to Rule 47 of the Rules of Procedure, to the Committee on Transport as the committee responsible and to the Committee on Economic and Monetary Affairs and Industrial Policy and the Committee on Regional Policy and Regional Planning for opinions.

At its meeting of 28/30 January 1985, the Committee on Transport decided to draw up a report and at its meeting of 23/24 May 1985 appointed Mr A. CAROSSINO rapporteur.

The draft report was considered at the meetings of 18/19 December 1985, 21/23 January 1986, 24/25 February 1986 and 17/19 March 1986. The committee adopted the motion for a resolution by 20 votes to 2.

The following took part in the vote: Mr ANASTASSOPOULOS, chairman; Mr KLINKENBORG, vice-chairman; Mr CAROSSINO, rapporteur; Mr BENCOMO MENDOZA, Mr CABEZON ALONSO, Mr CANO PINTO (deputizing for Mr Lagakos), Mr COIMBRA MARTINS, Mr CORNELISSEN (deputizing for Mrs Braun-Moser), Mr EBEL, Mr K.-H. HOFFMANN, Mr KILBY (deputizing for Mrs Faith), Mr LALOR (deputizing for Mr Roux), Mr NEWTON DUNN, Mr REMACLE, Mr ROSSETTI, Mr SAPENA GRANELL, Mr SILVA DOMINGOS (deputizing for Mr Wijzenbeek), Mr STEVENSON, Mr STEWART (deputizing for Mr Huckfield), Mr VISSER, Mr VAN DER WAAL and Mr ZAHORKA (deputizing for Mr Baudis).

The Committee on Economic and Monetary Affairs and Industrial Policy and the Committee on Regional Policy and Regional Planning decided not to deliver opinions.

The report was tabled on 21 March 1986.

The deadline for tabling amendments to this report will be indicated in the draft agenda for the part-session at which it will be debated.

C O N T E N T S

| | <u>Page</u> |
|--|-------------|
| A. MOTION FOR A RESOLUTION | 5 |
| B. EXPLANATORY STATEMENT | 9 |
| 1. Subject | 9 |
| 2. Traditional transport - integrated transport | 9 |
| 3. The main problems of the integrated transport system | 13 |
| 3.1. Goods | 13 |
| 3.2. Containers and tractor-vehicles | 14 |
| 3.3. Methodologies and technologies used in combined transport | 14 |
| 3.4. Physical, technical and legal barriers to traffic | 15 |
| 3.5. Coordination of timetables and speeding-up of transport operations | 16 |
| 3.6. Economic operators in integrated transport | 17 |
| 4. Terminals and interchange centres | 17 |
| 4.1. Different types of centres | 17 |
| 4.2. Criteria for the location of centres | 18 |
| 4.3. Centres of European interest | 19 |
| 4.4. Frontier centres | 20 |
| 5. Organizational aspects of the integrated transport centres ... | 20 |
| 5.1. Main functions | 20 |
| 5.2. Factors to be considered in harmonization | 20 |
| 5.3. Ideas for computerized procedures | 22 |
| 6. Conclusions | 22 |
| Annex 1: The interdependence between different modes of transport and services in a goods distribution centre | 24 |
| Annex 2: Motion for a resolution (Doc. 2-1151/84) | 25 |

The Committee on Transport hereby submits to the European Parliament the following motion for a resolution together with explanatory statement:

A

MOTION FOR A RESOLUTION

on the creation of integrated transport centres

The European Parliament,

- having regard to its previous resolutions on combined transport as defined in Directives 75/130/EEC and 82/603/EE,
- having regard to the motion for a resolution tabled by Mr CHANTERIE pursuant to Rule 47 on the construction and planning of integrated transport centres (Doc. 2-1151/84),
- having regard to the report of the Committee on Transport (Doc. A 2-17/86),
- A. noting the encouraging progress of combined transport resulting from the current economic recovery and the development of increasingly more efficient technical methodologies and structures,
- B. aware that the development of combined transport contributes to the transport chain's flexibility, thus allowing it to respond to national and international supply and demand trends on the market in transport,
- C. whereas, with a view to more efficient carriage of goods, transport centres have been established covering one or more sectors of transport,
- D. convinced of the need to boost this trend, which will serve to rationalize each mode of transport in relation to the criteria of transport efficiency, energy saving, environmental protection and the economic exploitation of peripheral regions,
- E. having regard also to the initiatives undertaken at international level, in particular by the Economic Commission for Europe and the European Conference of Ministers of Transport, in order to bring about closer integration on continental territory of the various transport networks: rail, road, inland waterways, sea and air,
- F. convinced that the European Community can contribute to this development by promoting the creation by Member States of interchange structures on Community territory,
- G. aware that such facilities, numbers of which already exist under various names (interports, multi-mode terminals, integrated centres, etc.), are involved not only in the handling of goods but also in many other auxiliary functions such as storage, warehousing, technical assistance, bank transactions, data processing, insurance and customs formalities, light industrial operations, particularly in the packaging sector, and hotel and catering services,

- H. considering that, in the context of an efficient Community transport policy, these integrated transport centres can play a vital role, especially:
- (i) in encouraging more rational use of the various means of transport, while allowing users complete freedom of choice,
 - (ii) in reducing the number of break-bulk operations and the time and costs involved;
 - (iii) in allowing a more rational use of the territory and the basic network of infrastructures,
- I. aware that the present integrated transport centres are being created with special reference to:
- external frontiers and the main flows of trade with third countries,
 - major European ports,
 - the major natural obstacles such as mountain ranges and sea straits,
 - the main economic areas to be served,
- J. whereas this trend should be maintained by taking steps to improve the efficiency of existing integrated transport centres and the two-way communication between them,
- K. whereas integrated transport centres offer the best way of meeting the objectives laid down for the initial stages of establishing the internal market,
- L. aware of the need to consider, together with industry, the criteria and conditions of Community interest regarding the location, size and organization of integrated transport centres, with special reference to those involved in the main flow of international trade,
1. Notes that valuable local initiatives aimed at creating integrated transport centres often come to nought owing to a lack of interest and/or support on the part of the competent national authorities;
 2. Notes, further, that the national authorities involved (e.g. the customs) are often unwilling to give support to an integrated transport centre that is not on their territory but just over the border in another country; calls upon the authorities concerned, therefore, to show more willingness to cooperate constructively in promoting such centres;
 3. Calls on the Commission first of all to take steps, in agreement with the Member States, in order to promote the coordinated and rational development and use of integrated transport centres, to define a basic infrastructure network for the Community;
 4. Considers that, in promoting the coordination of existing structures or structures soon to be created in the Member States, the Commission must take into account:

- the abolition of the Community's internal frontiers, planned for 1992,
 - the likely growth/decline in trade flows to the other Member States and third countries,
 - the likely progress at international and Community level of the work being undertaken to transfer the collection of taxes and customs duties and health, administrative and technical inspectorates, where appropriate, from the present frontiers to locations better suited to the logistics of transport operations;
 - the gradual abolition of the system of bilateral quotas and their replacement with Community quotas within the time-limits laid down for the establishment of the internal market;
5. Hopes that in addition to meeting the needs of the area in which they are situated, the major integrated transport centres will operate in coordination with other centres towards the following objectives:
- i - the provision of a computer system covering the number, type and capacity of the tractor vehicles and containers arriving from or bound for other integrated centres in the European network,
 - ii - the adoption of compatible or uniform technologies for the transfer of goods from one mode of transport to another (interface systems),
 - iii - the adoption of standard model swap/bodies and semi-trailers which, in the same way as containers, having been type-approved at European level, can circulate without needing systematic safety checks (in the same way as wagons purchased jointly by railway companies which circulate 'on trust',
 - iv - the formation of a common pool of means of transport or components thereof (tractor trucks, semi-trailers, wagons etc.) to form a mobile fleet of vehicles,
 - v - the provision of assistance and information to economic operators with regard to:
 - the legal position or the market conditions in the areas concerned,
 - office opening hours and the access codes for computer networks,
 - transport charges,
 - a table of the probable journey times for transport operators over the various routes and the consequent delivery times,
 - details regarding the transport companies operating in the centres, with specific information allowing an assessment of their reliability (their fleet of vehicles, legal status and volume of trade);
 - the existence of supervised lorry parks;
6. Considers that one of the priorities in the integrated transport centres is to make provision for drivers of commercial vehicles, allowing them to enjoy the compulsory rest period laid down in Community law, e.g. in particular by providing eating and resting facilities;

7. Calls on the Commission to speed up the process of computerization in intra-Community trade, by extending the measures laid down in the CADDIA project (COM(84) 556 final of 15 March 1984), to include integrated transport centres, provided that the integration of national systems such as SAGITTA is covered in the CADDIA project;
8. Calls on the Commission, together with the competent national authorities, to work out a system to link up the national computer systems involved in the customs and fiscal operations which could be conducted at the centres referred to, ensuring that:
 - the computer link-up among the major interchange centres takes place throughout the entire network,
 - all the centres adopt unified procedures, so that the 'single document' referred to in Regulations 678/85 and 679/85 can be processed by computer;
9. Hopes that the facilities provided for in Directive 75/130/EEC and subsequent amendments will be extended;
10. Calls on the Commission to draw up, as a matter of urgency, a 'medium-term plan' for infrastructures in rail, road, inland waterway and sea transport and for airports, including a list of the major integrated transport centres already in existence or at present being set up;
11. Calls on the Commission to include, in its periodic reports, information on trade flows in the major integrated transport centres in the Community;
12. Instructs its President to forward this resolution to the Council, the Commission and the competent authorities in the Member States.

EXPLANATORY STATEMENT1. Subject

The subject of this report is the question of Community aid for creating integrated transport centres.

In view of the strategic role which such structures play in the integrated transport chain and the fact that the subject is relatively new for the European Parliament, this report seeks to explain the overall system of which these centres are to be a part and the prospects for their possible future development.

The next twenty years will probably see substantial changes on the world economic scene. In the rapporteur's opinion the Community institutions must draw up a strategy of their own to cope with this situation. But if this is to be achieved in good time, flexible and effective integrated systems must be planned, especially in the transport sector. Combined transport may be the keystone of this new strategy; it shows up all the contradictions inherent in the various means of transport and the weaknesses of present-day systems of reciprocal integration. No single Member State can do what the Community can do in this sector. Serious research must therefore be done with a view to future planning. The very credibility of our proposals is at stake as is our ability to do justice to the demands and reconcile the interests of a transport policy worthy of the name.

2. Traditional transport - integrated transport

The first point to be made has to do with the nature of 'integrated' transport. This term is taken to mean all the methodologies, structures and logistic solutions aimed at making the transport of goods by several vehicles over the same route as fast and efficient as possible. The ideal to be achieved is obviously to ensure the delivery of goods 'from door to door' in the simplest, fastest and most reliable way possible, and this objective is often achieved by means of so-called 'single-mode' transport, such as road transport on the continent of Europe.

Until twenty or so years ago, public transport policy was mainly concerned with the problems of single-mode transport undertakings operating within a single infrastructure network (road, rail, inland waterway, sea or air transport). Each of the undertakings endeavoured to offer the full range of services required within its particular sphere. Consequently, public transport policies treated the various markets and types of infrastructure separately.

For this reason in almost all European countries the three complete networks of infrastructure for rail, road and inland waterway transport were built and modernized separately and at different times. In such circumstances, especially during the 1950s, the tremendously fast rate of rebuilding and economic growth and low energy costs led to the predominance of road transport, which used increasingly fast and efficient means at a relatively low labour cost, since most of the firms were small or medium-sized and supply exceeded demand.

However, especially in the last few years, this form of transport has begun to come up against a series of obstacles, some of them structural (connected with its very development) and some of them caused by government policies aimed at preventing excessive development.

Research in various countries has shown that road transport, especially on medium- or long-distance routes, is not only expensive but is often undesirable from other points of view, such as environmental protection, energy saving, the rational use of land, safeguarding the working conditions of operators and road safety.

However, since road transport is highly flexible and has the furthest reaching network, it is irreplaceable, at least in the initial and final stages of a transport operation, even if a cheaper and less environmentally damaging form of transport, such as rail or, where possible, inland waterway transport, is used for the main section of the journey. This kind of approach raises the serious financial and operational problem of 'break-bulk operations' needed to transfer the goods from one means of transport to another.

With traditional technologies considerable time is wasted in loading, unloading and packaging, and it costs money to transfer the goods, find adequate space and suitable vehicles and the legal and administrative problems involved in identifying goods and transferring them from one vehicle to another have to be solved. With new technologies, on the other hand, all these operations can be automated and their unit cost is considerably lower if there is a large enough volume of trade. Since it costs much less to transport goods by rail or by inland waterway than by road, the point at which it pays to change from transport by road to combined road and rail transport can be found simply by working out, for various possible routes, the distance over which the cost of road transport is equal to the sum of the costs of break-bulk operations plus transport by rail (or by inland waterway).

It follows that combined transport becomes more favourable:

- the higher the cost of road transport alone,
- the lower the cost of rail transport and break-bulk operations.

On the continent of Europe, the average distance over which it pays to use combined transport is between 400 and 500 km (this naturally varies subject to the varying incidence of 'regional factors' on combined transport operations).

Quite apart from this kind of econometric assessment, there are many other factors in favour of the combined transport solution. These include the fact that for medium or long-distance journeys, which cannot be completed within an 8-hour working day by the road haulage company, allowance must be made for the driver's rest period, bans on weekend driving, traffic jams at frontiers and on motorways, to say nothing of temporary or permanent bans on certain types of vehicle as in the case of the Swiss and Austrian road networks.

It must also be borne in mind that in future it will become increasingly difficult to increase productivity in transport by road only. An increase in the capacity of road vehicles even now seems purely theoretical, in view of the actual situation on the continental road network and restrictions on the speed, weight and size of vehicles in all the Member States.

It should also be remembered that an extensive use of rail transport allows the shipper to save not only on fuel but on wear and tear, drivers' wages and tolls for motorways and tunnels; from this point of view, the cost of road/rail transport and the transfer to reshaping and delivery terminals turns out to be lower and hence preferable, compared with other services of equal quality taking the same amount of time.

However, integrated/combined transport is an interesting proposition above all from the macro-economic point of view, which is what interests the public authorities. As was shown by a specific survey carried out on behalf of the United Nations' Economic Commission for Europe, this kind of transport facilitates:

- considerable savings on the costs of running the road and motorway networks;
- an improvement in the environmental situation;
- better management of land, especially in urban areas, provided that terminals and interchange centres are built outside those areas;
- more rational management of energy resources;
- the prevention of bottlenecks on road networks caused by heavy lorries;
- smaller subsidies for railway companies, if the volume of goods transported and the functional nature of structures allows services to be run at a profit and the companies' losses to be covered.

As further proof of this, we should add that if the average speed of goods trains was increased from the present 80 km/hour to 100-120 km/hour, in accordance with international programmes, and if the sorting of goods being transferred from one means of transport to another were simplified and speeded up (it would be even better to use block trains from the point of departure to the final destination) and if prompt delivery is guaranteed, the reliability and productivity of rail transport would be so much improved as to make it not only desirable but possible to reach once again substantial levels of trade after the long crisis of the last few decades.

For this reason all the European railway companies are once again setting their sights on 'new generation' goods transport characterized by a high degree of industrialization, automation and reliability. What is even more significant is that this transport solution does not reject but rather exploits the characteristic flexibility and speed of road transport which are indispensable for the sections of the journey involved in reshaping and delivery from the rail or inland waterway terminals.

Nowadays the objective of transporting increasingly large volumes of goods faster and at lower cost, using each means of transport in the most rational way, subject to its specific characteristics, can be achieved only by stepping up the pace of the 'revolution' now under way in the traditional goods transport systems.

We should not forget that the determining factor in this revolution in transport policy was the development of sea transport containers in the 60s. The use of containers has not only reduced to the minimum the time ships spend in ports and the costs of transferring goods, but has also set off a chain reaction (which is still going on), transforming the transport of goods by rail, road and inland waterway.

From the economic point of view, the industrialization of transport has brought about a marked reduction in labour costs, albeit at the price of enormous capital expenditure on building and converting the necessary infrastructure. Multi-mode transport has, however, more than anything, brought about a 'cultural' change in public transport policy, since by promoting integration it has eliminated the worst and more expensive forms of competition between means of transport. As we have already said, the aim of integration is to take advantage of the special characteristics of each means, the flexibility of road transport, the reliability of rail transport, the speed of air transport and the low costs of inland waterway or sea transport.

The facts show how sensible this new approach is. During the last five years, despite the effects of the economic crisis on the volume of goods transported, combined transport has grown more quickly than the individual modes of transport (despite a very modest increase in prices, since supply exceeds demand).

The shifting of trade flows from single-mode transport to combined transport is now becoming structural, especially on the continent of Europe, according to data gathered by the Commission from periodic surveys carried out by the transport market monitoring service. Even if the data and the surveys are not absolutely accurate, as the operators and other international organizations seem to think, the trend is now irreversible and represents the coinciding of economic and structural interests and public policies.

It is no coincidence that combined multi-mode or integrated transport is becoming the strategic factor in the modification of transport policy, at world, continental, national and regional levels. This is confirmed by extensive research being carried out by the United Nations in developed countries (in particular by the Economic Commission for Europe) and in developing countries (in particular under the auspices of UNCTAD) and also by increasingly specific research being carried out in Europe by the European Conference of Ministers of Transport (ECMT) as part of the work of the OECD.

Finally, we should remember that the most recent national transport plans (in Italy and Switzerland) and regional plans make multi-mode transport the keystone of the policy on each means of transport. It is also interesting to note that multi-mode transport policy is useful not only for countries where the networks of various infrastructures are incomplete (as in developing countries) but also for countries where the maximum capacity of the networks has been reached and many bottlenecks have been created (as in various areas of Europe). In fact, in such situations, once the problem of transferring from one infrastructure network to another is solved (the so-called 'interface' problem) each part of the railway, road and inland waterway networks can be combined with the other parts to form a single system which efficiently meets the needs of each part of the territory.

A slight increase in the complexity of the system is thus offset by greater overall flexibility, combined with a more rational use of amenities and structures which are costly and difficult to set up. Until now the various means of transport traditionally worked against one another rather than with one another, but it is the task of the public authorities to see that the relationship between the various means of transport is as effective as possible and causes as little conflict as possible. Hence, we can see that multi-mode combined transport forces political leaders as well as economic operators to review seriously:

- the role of the various means of transport and the relevant infrastructures;
- the role of the various parties involved in transport;
- the common characteristics of containers and vehicles;
- the activities to be carried out jointly at terminals or interchange centres by one system of transport or the other (terminals, ports, land ports ...).

3. The main problems of the integrated transport system

3.1. Goods

When considering the present integrated transport system on the continent of Europe, we should look at the changes in the nature and quantity of the goods transported under this system, since the nature of the goods also influences the type of structure and infrastructure used for handling. Functionally speaking, we have at least two categories: the so-called bulk merchandise such as petroleum, coal and cereals which are transported periodically by a limited number of operators in substantial quantities and using highly automated and specialized techniques to reduce costs to a minimum. The arrangements for the carriage of these goods are rigid and are less of a financial burden for the Community transport system.

Although the overall tonnage handled is decreasing the value it represents is increasing because more of the goods transported belong to the second category, 'miscellaneous' goods. These include machinery, consumer goods and finished products with a considerable added value and are the goods on which European industry is relying to a growing extent. They require an extensive and far-reaching distribution network and their value per tonne or per cubic metre is high, as in the case of the main goods transported in other areas of highly developed production, such as the United States and Japan. The basic aim is therefore to reduce the present incidence of transport costs on overall costs (at present between 5 and 15% of final costs) thereby increasing the competitiveness of the goods produced or put on to the market.

The obvious way to achieve this is the 'industrialization' of the transport chain and hence the construction of strong, easy-to-handle and versatile tractor/containers suitable for transporting a wide variety of goods. In the last fifteen years technological development aimed at finding the best possible compromise between these demands has made great strides and only now can we be considered to be entering a 'mature' phase in which not only economic operators but the public authorities themselves can adopt standardized models and procedures, thus promoting the maximum speed and reliability of traffic within the continental transport system.

Standardization in fact affects all aspects of the system, in particular containers, vehicles and the methodologies jointly used for handling goods. Harmonization may be achieved in practice by joint purchases of materials with equivalent characteristics, or equally by making provision for adherence to certain common standards regarding the size of containers, the characteristics of vehicles and safety requirements. It may be achieved 'in practice' by joint purchases of wagons and containers by the company Intercontainers, or by means of joint research projects for the construction of electric rail cars by international consortia formed for that purpose by the major European railway companies. However, this kind of spontaneous and voluntary initiative can be backed up by other initiatives of a binding nature, for example the fixing of standard sizes for containers, vehicles and terminals on the territory of the continent.

3.2. Containers and tractor-vehicles

A first step towards standardization in transport operations concerns packaging. The most widespread type of apparatus used is the pallet, which consists of a platform of standardized size, used as a base on which the goods are placed and then moved by means of special elevator trollies. It is cheap and takes up little space on the return journey but does not protect the goods which are loaded on it.

A better known piece of equipment is the container, which exists in various types and various sizes, although there has been a gradual trend towards standardized dimensions for the sea container, which should be 2.44 metres wide and the land container, which should be 2.5 metres wide, according to the measurements laid down by the ISO.

Of the container sizes laid down by the ISO (20, 30, 35 and 40 feet) the twenty-foot container (the TEU - twenty-foot Equivalent Unit) would seem to be the most suitable and fit best into the fleet of containers used in 'Latin' countries and 'Germanic' countries which both use containers within this size range. The use of this unit of measurement obviously determines the choice not only between a wide selection of road and rail traction units (Wippenwagen, Kangaroo etc.) but also between handling systems in terminals and exchange centres. Obviously savings can be made by using standardized infrastructures.

Containers are fairly expensive, have an average life of 12 years, can carry as much as 30 tonnes and protect the goods transported (in some cases they are used as stores), but they take up the same amount of space whether empty or full. It is interesting to note that the company Intercontainer has a monopoly in European containers and the 23 major railway companies in Europe are partners in it (except for Albania and the Soviet Union).

The 'swap body' is a cross between a container and a semi-trailer and is a structure the size of an ISO 20-foot container and can be removed from the chassis of the lorry (however it cannot be used for storage since it cannot be stacked like a container). It is interesting to note that this method has become increasingly popular, especially in the last few years. The transport of swap bodies is managed commercially by road/rail traffic companies operating in the main European countries.

The gradual standardization of containers has also led to the standardization of the tractors onto which they are loaded. 'Whole block' transport involves the transport of the tractor or its parts (lorry-trailer or semi-trailer). The whole-block transport system in which a vehicle of one transport system is loaded on to a vehicle of another system has resulted in real specialized technologies.

3.3. Methodologies and technologies used in combined transport

The most simple technology, even though in fact it is only used in the Alpine area, is the 'rolling road' (route roulante). Using special wagons it allows a whole lorry to be loaded and unloaded onto lowered wagons very quickly. The advantages of extreme rapidity are however counterbalanced by the high cost of the rolling stock and the need for a tunnel width which is not found in other railway networks on the continent and thus this methodology cannot be used on a vast scale in the near future.

A more widespread method, especially for crossing short stretches of sea or on inland waterways, is 'transroulage', which albeit rather expensive, does not involve 'break-bulk operations'. By using roll-on roll-off (ro-ro) ships or barges, the load is transferred horizontally and practically without the aid of further infrastructures in the departure or arrival terminal. This advantage is however counterbalanced by the fact that the weight of the lorry or the semi-trailer must be transported unnecessarily.

However, the most widespread and promising technology is piggyback transport, which consists in loading lorries, trailers, semi-trailers or containers and swap bodies onto special flat-bottomed wagons. They are loaded by means of special techniques, especially the so-called vertical or 'lo-lo' (lift-on, lift-off) technique, using an expensive high-capacity crane.

It is incidentally interesting to note that piggyback transport on the European market is organized either directly by railway companies through the company Intercontainer mentioned above, which handles the containers, or else by private companies which handle the other container-tractors involved in piggyback transport. This means there is a form of competition between railway companies and piggyback transport companies which to a certain extent try to defend their respective shares of the market.

A kind of modus vivendi has been established on three levels:

- by trying to make the type of container handled different
- by developing mutual financial and commercial integration (allowing railway company shareholders to hold shares in the piggyback transport company)
- by promoting, at the general organizational level, mutual cooperation in one association between railway networks and piggyback transport companies, called Interunit.

In your rapporteur's opinion, it is certainly not the European Parliament's duty to influence the ways of developing and safeguarding competition in this sector, but rather to identify the areas where public authorities may intervene to make the system as rational and transparent as possible.

3.4 Physical, technical and legal barriers to traffic

With regard to barriers caused by the geographical features of the areas involved, we would refer to the comprehensive list drawn up by international organizations and trade associations on 'bottlenecks' in the present-day network. The Community has been aware of these problems for some time and has studied them on various occasions in connection with its own policy for financing infrastructures.

We would point out that the states belonging to the Economic Commission for Europe are in the process of ratifying an agreement on a railway network for passenger and goods transport, initialled in Geneva on 31 May 1985. This agreement provides for the adaptation of the existing network (laying down category B of the standards drawn up by the International Union of Railways - IUR) and the charting of a new high-speed transport network (Category C 1 of the IUR standards for commercial traffic speeds, 140 and 250 kilometres per hour for goods and passenger traffic respectively). This will result in an impressive series of restructuring operations on existing infrastructures (including for example the Gottard Pass, which does not allow TEU containers through) and new projects.

The other main problem is the maximum permitted load width on railways. This not only varies from one national network to another but also within the same national network and between one line and another. The UIRR (International Union of Combined Road-Rail Transport), which is the association of road-rail transport companies, has published a chart showing the authorized limits. Present-day developments in lorry design (small wheels, low chassis, jumbo lorries) may in future make it impossible to transport these vehicles by rail, not only because of their height (the present limit is 4 metres), but because of their width. It would therefore seem desirable for builders of railway equipment and the major lorry manufacturers to come to an agreement to avoid any further incompatibility between these two modes of transport.

The spread of combined transport is further restricted by the authorized limits on the load on each axis which vary from one line to another. These restrictions have repercussions on the weight transported and the authorized speed and should be raised to at least 90 km per hour for 22 tonnes per axis, at least on the principal routes on the continent of Europe. Combined transport may be further hampered by differing technical rules for changing locomotives between networks, and by technical safety checks (the width of wagons, wear and tear on rolling stock and different braking systems.....). From this point of view, steps such as those taken by the German and Austrian railway network to ban the changing of locomotives ('gong' programme) would be worth developing over the whole territory of the Community.

Further problems affecting traffic on the railway network arise from the peculiar structure of the fleet of industrial and commercial vehicles of which there are a great variety in Europe. On the one hand, the 'Latin' countries concentrate part of their road transport on articulated vehicles (tractor plus semi-trailer) whilst the Germanic countries above all use whole lorries plus a trailer¹.

3.5 Coordination of timetables and speeding up of transport operations

An essential factor in the efficient functioning of combined transport is punctuality and synchronization in the successive phases of transport both for the road section and the railway section. The greatest problem is, unfortunately, the fact that the timetables of different railway companies have not yet been satisfactorily coordinated. Since there is both passenger traffic and goods traffic on the network at the same time it is often difficult to insert goods convoys in the normal traffic flow and this can lead to delays which have repercussions, some of them financial, on road transport operations. We have already mentioned the need to avoid unnecessary stops during the railway journey for disassembling and reassembling convoys; we should add that contrary to what is laid down in Directive 75/130/EEC, the fastest route is not always the shortest route and that therefore in the customers' interest, railway companies or road/rail transport companies should be allowed to choose the most appropriate route.

¹ This structural difference to a certain extent leads to the 'exchange' of containers and tractors. For example, on the Germany - Italy traffic link, most of the traffic consists of semi-trailers. A partial but important solution to this problem is the swap body, the use of which has increased by 50% in France and 80% in Germany.

3.6 Economic operators in integrated transport

The integrated transport market, as we have already said, nowadays seems to be divided up between the companies Intercontainer and the road/rail traffic companies (Novatrans, TRW, Combiwerker, Hupac, Ferpac, Cemat, Transnova and Oecombi) which operate both in Community countries and in Switzerland and Austria.

Intercontainer, which groups together European railway companies directly runs and transports containers in the same way as the railway companies on the United States market. As we have already said, the road/rail transport companies organize the handling of lorries, semi-trailers and swap bodies on the railways. Their work is therefore mainly of a commercial and financial nature and does not concern the organization of transport on the initial and final sections or at despatch and delivery terminals. Some of the road/rail transport companies have their own branches in several Community states and have a fleet of wagons which they either own or rent.

We have already mentioned the problem of co-existence between these two types of economic operators, but an even more serious one is the automatic exclusion from this market of own-account operators (firms with their own vehicles) and small and medium-sized road transport companies, which constitute the majority of road transport operators in Latin countries. This category could theoretically exploit combined transport but it is at a disadvantage for various legal, organizational, logistical and production reasons.

We should bear in mind that in the transport chain 'traction' is without doubt the weakest link and in many cases costs less than the other operations (processing information and official documents, storage, handling, packaging and distribution). Recent research carried out in the United States shows that expenditure on 'traction' accounts for 30 to 50% of transport costs and 'logistic' expenses 50 to 70%. It would therefore seem economically expedient and socially desirable not to exclude small and medium-sized transport operators from a range of services which may increase the productivity of their undertakings.

4. Terminals and interchange centres

4.1. Different types of centres

At the present time in the territory of the Community there are a large number of centres where goods are transferred from one mode of transport to another in a more or less automated and organized manner. They of course include ports which were the starting point for the process of containerization but they also include major stations handling international traffic both from within and outside the Community. An exhaustive list of centres based on the railway network may be found in the agreement on international combined road/rail transport which not only mentions existing centres in Community countries but also in Norway, Austria, Switzerland, Finland, Sweden and Yugoslavia. It indicates for each of them the main type of equipment used (horizontal or vertical handling) the main types of container used (whole vehicles, trailers or semi-trailers, swap bodies or containers) and the loading and unloading capacities of the structures. With the development of inland waterway transport in the last few years and the production of specially equipped

barges, much has been achieved on the inland waterway network of northern and central Europe and along the canals linked to the Rhine and the Rhone and on the Rhine/Main/Danube axis. It is quite true that interchange centres have been built or multi-mode terminals have been organized in the last few years in an uncoordinated way, so that in each of the Community countries and in third countries, much consideration is being given to the best sites for such centres.

It is essential, in this sector at least, to avoid the creation of over-capacity as in various other sectors of the transport market (ranging from road transport to inland waterway transport). This would not only upset the balance of supply and demand but would require hard work on the part of public and Community authorities to reconvert structures and retrain staff who are surplus to requirements.

4.2. Criteria for the location of centres

As has been shown by recent research on the French medium-term plan (1984 - 1988), by Italian planning and by research carried out by the company Interunit, the development of combined transport greatly depends on the size of interchange centres and their territorial spread. In particular this research indicates:

- (a) the need to locate terminals in economically important centres (cities or seaports) served by major communication axes. The so-called 'barycentric' theory, according to which the centre should be located in an area bordering on several economic areas turns out to be less important;
- (b) the need to suppress local tendencies towards an irrational multiplication of interchange systems depending on local or national political interests (which is what happened when rail or road infrastructures were set up), especially near frontiers;
- (c) the need for the area concerned to be adequately 'irrigated' with road connections. If access to the interchange centre is made difficult by city traffic or bottlenecks on the network, the whole transport operation will be jeopardized;
- (d) the need for integrated planning with regard to the road and rail network so that, for example, future railway marshalling yards will coincide with interchange centres.

We should point out that an international agreement is soon to be adopted on the reorganization of goods trains marshalling yards under the aegis of the Economic Commission for Europe. To give an example, in the Federal Republic of Germany the number of marshalling yards fell from 135 in 1975 to 28 in 1985. This rationalization of operations has concentrated traffic flows, reduced the volume of intermediate operations, increased the average capacity of the remaining stations and increased the possibility of organizing whole trains (block trains) running from one end of the country to the other, while substantially reducing the costs involved. This is an extremely important development, since on the continent of Europe the railways unquestionably play a strategic role in the development of intermodal transport. Unfortunately, however, it is outside the Community that most thought is at present being given to the reorganization of intermodal transport infrastructures.

4.3. Centres of European interest

Unfortunately, not only were the most important agreements on the reorganization of major road networks (ARD) of 1975 and the above-mentioned agreement on the future railway network for passenger and goods transport (ACT) of 1985 drawn up and adopted outside the Community, but there is no research data available on the future development of traffic and its impact on existing or planned infrastructures. This means that the present criteria for defining the 'Community interest' of one project rather than a set of projects in the transport system are debatable or could be improved upon.

Unfortunately, the criterion used so far is whether the Community should help to finance projects or not, rather than ascertaining whether projects fit in with a balanced continental system, which would perhaps be much more important. The absence of a 'blueprint' for infrastructures (regardless of whether the Community contributes to financing or not) also inevitably gives rise to problems with Member States, when the location of an infrastructure is essential for the pursuit of a Community aim. The matter becomes quite obvious when we consider the location of integrated transport centres. They can only be located on the basis of research showing:

- the probable future development of traffic and the type of goods transported (it is an established fact that the decrease in tonnage in trade between Europe and the rest of the world is one result of goods with a high added value being replaced by others, for example petroleum or cereals);
- the extent of the distribution areas for the goods (bearing in mind that an integrated transport centre is the nucleus of the network for distributing goods throughout the territory);
- conditions created by the world market (in particular the growing use of American, Russian and Japanese 'round the world' ships which in the next few years will put in at very few European ports, with the result that container traffic in those areas will be concentrated even further);
- conditions created by the present traffic capacity of the road and rail networks and existing infrastructures (ports, interports and marshalling yards);
- future areas of economic development and their probable relations with the rest of the continent.

As we have already said, the organization of intermodal transport requires enormous investment, a long period of time and painstaking efforts to achieve harmonization within the system. The major potential danger of the absence of a European framework for intermodal transport with regard to the location of the main interchange centres for the different modes of transport, is that surplus capacity may accumulate in some areas whilst other areas, which are supposed to be developed fully, may be cut off. In both cases, the social cost in terms of jobs lost and potential economic instability is far greater than the cost of joint planning between the Member States and the Community Institutions in accordance with the spirit of Title V of the Treaty of Rome.

4.4. Frontier centres

We should also devote some attention to the integrated transport centres which, on the basis of valid economic and territorial considerations, such as those set out above, are located near the border of two or more countries (for example, in the centre of Europe). In these circumstances one might consider the possibility of economic operators from the states concerned managing them jointly (an interesting possibility is offered by the implementation of the Community regulation on creating European economic interest groups). The administrative functions incumbent on each of the states involved in the transport operation could be carried out simultaneously in these centres. This would follow the positive example of the unified frontier posts, which mean that people crossing borders may be subjected to a single border check on behalf of both the states concerned.

5. Organizational aspects of the integrated transport centres

5.1. Main functions

Generally speaking a number of functions more or less directly connected with transport are carried out in an integrated transport centre, with a distinction being made between the private and public sectors.

The main private-sector functions (see Annex I) are obviously those concerning the handling and storage of goods and possibly their distribution (if the integrated represents the final stage of transport), the maintenance of interface systems (cranes and special equipment), tractors (railway wagons, lorries ...) and containers (containers, swap bodies, semi-trailers etc.).

Each of these functions requires separate space, operational procedures and operators. The importance of each of them in the work carried out at the centres differs according to the economic situation, the size of the area served and, as we have already said, the type of goods being transported. This report is not concerned with a detailed discussion of the problems raised by each of these functions, but what should be stressed is that each of them is a link in a chain, which the authorities must make as efficient as possible.

5.2. Factors to be considered in harmonization

In view of the progressive 'industrialization' of the transport system and the harmonization of its various parts and procedures, it might be useful to consider standard integrated systems defined according to the characteristics considered to be of mutual interest, according to the volume of traffic, the type of goods handled and the modes of transport involved (inland waterway, sea, road or rail transport). However, preliminary research carried out in this sector does not allow general rules to be laid down regarding the organization of space inside an integrated centre, but merely to propose (as in the United Nations document on developing countries) some particularly efficient models.

In its theoretical studies to find the best way of carrying out all these functions in one integrated centre, the European Community could also consider promoting the creation of a 'network' of integrated centres, so that each of them may set up services or exchange them with the other centres throughout the territory of the Community. This could create a system in which each of the centres might serve as a 'junction' in one and the same network.

From the macro-economic point of view, not only would the productivity of the overall system definitely increase but also each individual component (i.e. each integrated centre) would become more productive. What are the essential common factors needed to create unified rather than fragmented integrated centres? In your rapporteur's opinion, subject to the outcome of specific research sponsored by the Community or other institutions, the common factors might be as follows:

- the creation of a joint computer system covering the number, nature and capacity of the tractors and containers arriving from or bound for other integrated centres in the European network;
- the adoption of compatible or uniform technologies for transferring goods from one mode of transport to another (the 'interface systems');
- the adoption of standard model containers, swap bodies and trailers which, having been type-approved at European level, can circulate without needing systematic safety checks (in the same way as wagons purchased jointly by railway companies which circulate 'on trust');
- the formation of a common pool of means of transport or components thereof (tractor trucks, semi-trailers, wagons etc.) to form a mobile fleet of vehicles circulating under the responsibility of the integrated transport centres;
- a list of transport companies entitled to operate at these centres, with specific information allowing an assessment of their reliability (their fleet of vehicles, legal status of volume of trade);
- the provision of assistance and information to economic operators with regard to:
 - the legal position or the market conditions in the areas concerned;
 - the opening hours of the main offices and their computer access codes;
 - transport charges;
 - a table of probable journey times for transport operators over the various routes and the consequent delivery times.

To these functions may logically be added the safekeeping or storage of vehicles and containers, the handling of goods before they are placed on the market (load insurance services) in accordance with current requirements at the various centres. Another possibility, also intended to promote more rapid circulation of goods between private operators working within the orbit of the integrated centres, would be the standardization of transport contracts drawn up on forms valid over the entire network.

More complex problems arise from the harmonization of administrative provisions regarding the transport of goods on routes both within and outside the Community.

At least in this sector, the European Community may be considered to be in the forefront as regards international arrangements for facilitating frontier traffic. However, we should not rule out the possibility of more effective measures being introduced when the GATT and TIR international conventions are revised, for example the development of experimental methodologies to replace documents at present produced in paper form.

5.3. Ideas for computerized procedures

Both the Commission and Parliament have turned their attention to this subject several times, most recently in the debate on the document concerning the consolidation of the internal market and the Commission's Green Paper on the same subject. For the purposes of this report, I feel it important to stress certain points:

- with regard to transport within the Community, systematic checks on goods must be abolished, except for possible sample checks for the purposes of tax, technical and health controls;
- with regard to transport outside the Community, customs, health, veterinary and safety controls should be carried out simultaneously at the centre where the goods enter the Community or on the premises of the recipient, if the condition of the goods or the circumstances of the contracting parties make this possible.

In your rapporteur's opinion, current experience in the UK, France and Germany show that tax formalities (or customs formalities) in the case of transport outside the Community, need not necessarily be carried out at the frontier but rather in any part of the territory of the various countries.

Methodologies of this kind, rendered feasible by computerized systems, can also create an automatic link between the computer systems in both the public and private sector for data of mutual interest. An automated link of this kind, obviating the need to produce paper documents and record the transactions of the shipping agent or carrier would considerably reduce the time wasted in the transport of goods within and outside the Community.

So that these proven advantages, already enjoyed by a few, may be shared by all transport operators, it may be desirable to:

- (a) further reduce and simplify administrative procedures concerning the transport of goods which have already been harmonized at Community level by Council Regulations No. 678 and No. 679 of 18 February 1985¹,
- (b) the rapid completion of the coordination of national computer systems laid down in the CADDIA project,
- (c) the creation, in interchange centres of Community interest, of computerized services for small and medium-sized undertakings, which individually do not have means of access to the main computer system.

6. Conclusions

From the wide range of recommendations made above, the following objectives may be singled out as the most important for the Community's future work.

1. To carry out special research and statistical surveys on the integrated transport system in the Community, so as to make unambiguous and significant data available at the right time.

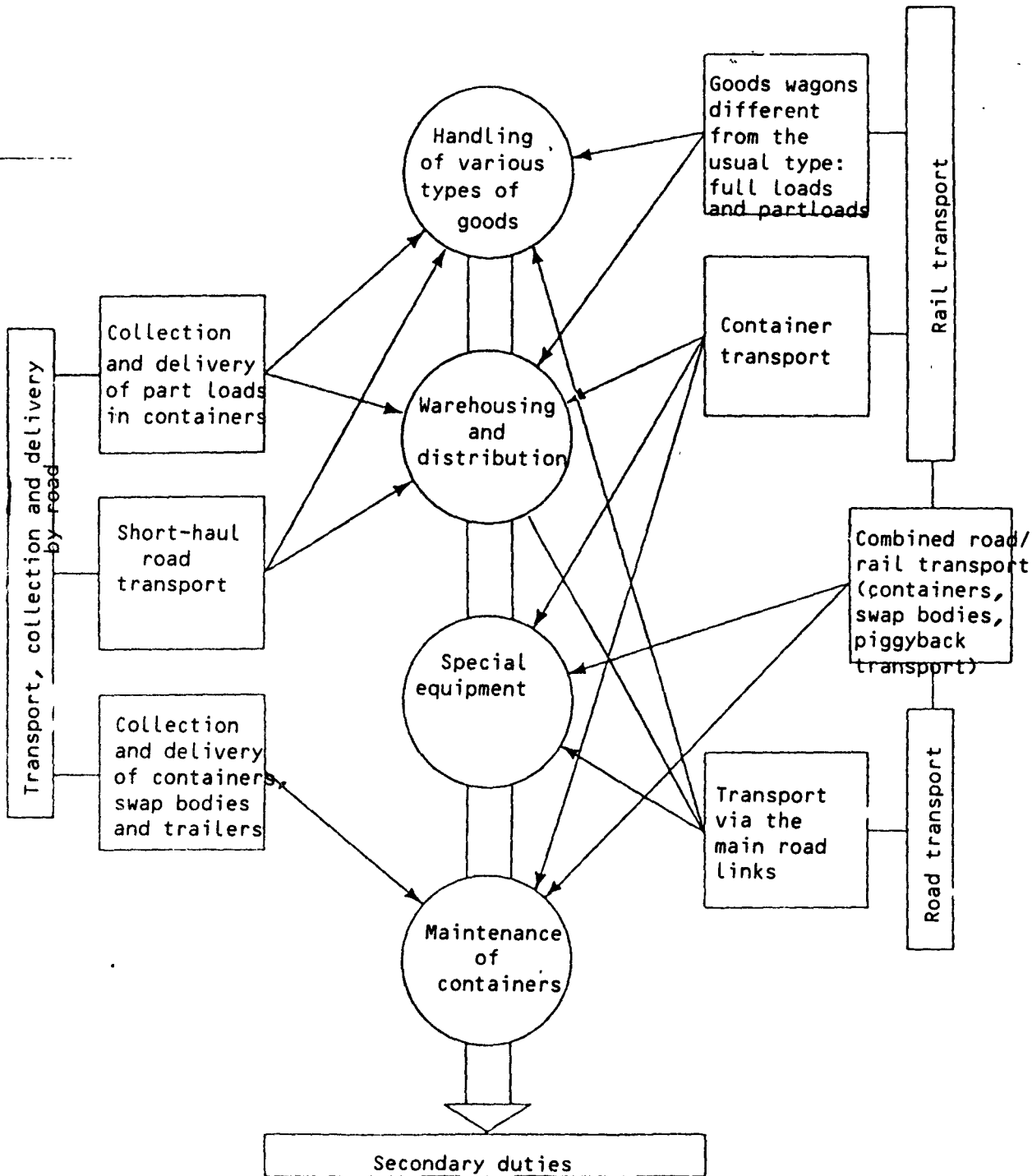
¹OJ No. L 79, 21.3.1985

2. To identify, on the basis of the data gathered, the objectives of 'Community interest' to be pursued as regards the location, size and organization of the centres with the greatest volume of international trade.
3. To collaborate with the Member States to ensure that the interchange centres are located and set up in a rational way on the territory of the Community, taking European needs into account.
4. To adopt appropriate legislative, financial or fiscal measures to prevent the creation of either too many or too few centres on Community territory.
5. To take steps, in collaboration with the Member States, to remove 'bottlenecks' of a physical, technical or legal nature which impede movement on the networks linking the centres, particularly the railway network.

Obviously all these objectives cannot be achieved simultaneously and therefore a schedule must be drawn up by the Community, the Member States and the main public and private bodies involved in the sector.

There will inevitably be a number of problems but we feel that the direct and indirect benefits of this effort at Community and national level will offer ample compensation.

THE INTERDEPENDENCE BETWEEN DIFFERENT MODES OF TRANSPORT AND SERVICES IN A GOODS DISTRIBUTION CENTRE



Source: BNO Raumfahrttechnik GmbH. *Problematik des Güterverkehrszentrums in der Region Bremen* (A study of the problem of goods distribution in the Bremen region) Bremen, 1979, p.68

MOTION FOR A RESOLUTION (DOCUMENT 2-1151/84)

tabled by Mr CHANTERIE

pursuant to Rule 47 of the Rules of Procedure

on the construction and planning of integrated
transport centres

The European Parliament,

- A. whereas the handling of cross-frontier traffic in the Community could be substantially improved by building integrated transport centres where loading, unloading, storage and groupage as well as shipping and customs formalities would be handled in a single complex,
 - B. whereas such centres would also offer major benefits as regards:
 - services for producers and consumers
 - better utilization of vehicles and their cargo capacities
 - the living and working conditions of lorry drivers
 - more efficient and speedier shipping and customs formalities,
 - C. whereas integrated transport centres would also permit a more harmonized and profitable intermodal approach to transport operations and would thus help to further combined transport, thereby reducing energy consumption and costs,
 - D. whereas this can increase the general profitability of the transport sector, which would in turn promote growth in intra-Community trade,
1. Believes that specific measures should be taken with a view to constructing and enlarging integrated transport centres;
 2. Believes also that such centres should be built in areas of strategic importance for communications, in particular where major trunk roads meet and near seaports, inland ports and/or airports, and major marshalling yards;
 3. Believes moreover, as regards the location of such centres, that priority should be given to frontier regions;
 4. Calls on regional authorities to support initiatives relating to the building of integrated transport centres and to take appropriate action in this connection, and in particular to provide sufficient safeguards to encourage transport operators, forwarding agents and customs agents to make the requisite investment;

5. Calls also on the national authorities concerned to take analogous measures in this connection and, if necessary, to hold consultations with the competent authorities in neighbouring countries to ensure that the requisite cooperation will work in practice;
6. Takes the view that priority must be given to the construction of integrated transport centres in a Community context;
7. Takes the view therefore that such projects must enjoy priority in the Community's transport-infrastructure support measures because they both stimulate cross-frontier transport and promote intra-Community trade;
8. Calls on the Commission to examine whether such centres might be given the status of Free Zones and to report to Parliament on this as soon as possible;
9. Takes the view that these centres should be provided with appropriate catering and rest facilities for lorry drivers, since, moreover, this would permit greater compliance with Community provisions on driving and rest times;
10. Instructs its President to forward this resolution to the Council and Commission and to the parliaments and Ministers of Transport and Public Works of the Member States.