## **European Communities**

## **EUROPEAN PARLIAMENT**

# Working Documents

1983-1984

15 March 1984

DOCUMENT 1-1525/83



## Report

drawn up on behalf of the Committee on Transport

on transport problems in Greece with particular reference to infrastructure development

Rapporteur: Mr J. KLINKENBORG

PE 87.650/fin. Or. De.

During the sitting of 12 October 1982 the President informed the European Parliament that the enlarged Bureau had authorized the Committee on Transport to draw up a report on transport problems in Greece and had referred the matter to the Committee on Budgets for an opinion. During the sitting of 29 October 1982 the President informed Parliament that the Committee on Regional Policy and Regional Planning had also been asked for an opinion.

At its meeting of 20 October 1982 the Committee on Transport appointed Mr Jan KLINKENBORG rapporteur.

The Committee on Transport decided at the meetings listed below to consider within the framework of this report the following motions for resolutions tabled pursuant to Rule 47 of the Rules of Procedure, which had been referred to it as committee responsible or for an opinion:

- 25 June 1982: motion by Mr LAGAKOS and others on the construction of the motorway linking Igoumenitsa to Volos (Doc. 1-309/82);
- 24 September 1982: motion by Mrs Kalliopi NIKOLAOU and others on the repair of the Corinth Canal (Doc. 1-513/82);
- 25 April 1983: motion by Mr EPHREMIDIS and others on the modernization of railways in the Peloponnese (Doc. 1-7/83);
- 11 July 1983: motion by Mr KALOYANNIS on the creation of a free port on Kastellorizon (Doc. 1-450/83) (referred for opinion);
- 21 September 1983: motion by Mr LAGAKOS on Greek railways (Doc. 1-654/83).
- 27 February 1984: motion by Mrs THEOBALD-PAOLI on the development of maritime links between the French Mediterranean regions and Greece (Doc. 1-1308/83).

From 31 August to 2 September 1983 the rapporteur carried out a fact-finding visit to Greece to ascertain the trends in Greek transport policy and the need for various measures aimed at developing transport infrastructures. He had talks in particular with the Minister of Transport, Mr AKRITIDIS, and the Minister for Public Works, Mr TSOCHATZOPOULOS.

. • • . The Committee on Transport discussed the subject matter of the report at its meeting of 25 January 1984 and considered the draft report itself at its meeting of 27 February 1984.

At its meeting of 27 February 1984 it unanimously adopted the motion for a resolution.

The following took part in the vote: Mr Seefeld, chairman;
Dame Shelagh Roberts, vice-chairman; Mr Albers, Mrs von Alemann, Mr Baudis,
Mr Buttafuoco, Mr K. Fuchs (deputizing for Mr Hoffmann), Mr Gouthier
(deputizing for Mr Cardia), Mr Kazazis (deputizing for Mr O'Donnell), Mr Key,
Mr Klinkenborg, Mr Lagakos, Mr Moreland (deputizing for Mr Cottrell),
Mr Konst. Nikolaou (deputizing for Mr Gabert), Mr Protopapadakis(deputizing
for Mr Modiano), Mr Radoux (deputizing for Mr Ripa di Meana) and
Mrs Scamaroni.

The opinion of the Committee on Regional Policy and Regional Planning is attached. The opinion of the Committee on Budgets will be published separately.

The report was tabled on 6 March 1984.

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.

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Opinion of the Committee on Regional Policy and Regional Planning.

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

#### MOTION FOR A RESOLUTION

on transport problems in Greece, with particular reference to infrastructure development

#### The European Parliament,

- having regard to the motions for resolutions tabled by:

Mr LAGAKOS and others on the construction of the motorway linking Igoumenitsa to Volos (Doc. 1-309/82);

Mrs Kalliopi NIKOLAOU and others on the repair of the Corinth Canal (Doc. 1-513/82);

Mr EPHREMIDIS and others on the modernization of railways in the Peloponnese (Doc. 1-7/83);

Mr KALOYANNIS on the creation of a free port on Kastellorizon (Doc. 1-450/83);

Mr LAGAKOS on Greek railways (Doc. 1-654/83);

Mrs THEOBALD-PAOLI on the development of maritime links between the French Mediterranean regions and Greece (Doc. 1-1308/83);

- having regard to the report drawn up by Mr KLINKENBORG on behalf of the Committee on Transport and the opinions of the Committee on Regional Policy and Regional Planning and the Committee on Budgets (Doc. 1-1525/83);
- A. whereas there are difficulties involved in the integration of Greece into the Community's transport system which must be resolved with mutual understanding,
- B. whereas the European Community must in particular show understanding for the fact that Greece requires a fairly lengthy transition period for the implementation of certain provisions of Community law, in order to preserve its economic structure which is based on small and medium-sized undertakings,
- C. whereas, on the other hand, bureaucratic obstacles to transport for which there is no real justification must be removed as rapidly as possible.

- D. whereas the particular problems affecting Greece in the shipping and air transport sectors can only be properly discussed within the overall context of the common sea and air transport policy and will therefore be discussed elsewhere.
- E. whereas a uniformly efficient transport system is an important factor in the achievement of economic convergence in the Community; it is therefore particularly in the European Community's interest to make good the deficiencies in the development of transport infrastructures in Greece, especially for land-based forms of transport,
- F. whereas in the past fifty years road building has been the main beneficiary of investment in transport infrastructure in all the Member States of the Community,
- G. whereas in a free transport system the natural advantages of rail transport, its safety, its lack of harmful impact on the environment and its rational use of energy, are only effective if the service provided, particularly as regards train speeds, meets present-day requirements; for this to be possible, however, considerable investment is necessary to modernize the rail network,
- H. whereas making up for past failure to invest in railways is therefore a priority of the common transport policy; in the long term this is the only solution to the economic problems of the railways, problems which exist in all the Member States and are currently hampering progress in other areas of the common transport policy too,
- I. whereas the low level of funding for the Community instrument specific—ally designed for transport infrastructure development makes it necessary to concentrate financial support on a small number of projects in order for it to be effective, and whereas the criteria according to which these projects are selected must be those laid down under the common transport policy for the further development of the transport system,
- J. whereas the completion of the main Athens Thessaloniki Yugoslav border rail link as part of the main Athens-Belgrade-Munich line was already advocated by the European Parliament in its resolution of 9 March 1982<sup>1</sup> on the future of the Community railway network: this line forms the umbilical cord between Greece and Central Europe: its modernization is therefore of prime importance for the European Community;

<sup>&</sup>lt;sup>1</sup> OJ No. C 87 of 5.4.1982, p. 43; GABERT report, Doc. 1-982/81

at the same time, as already stressed in the resolution of 15 December 1983<sup>1</sup>, transit routes through Yugoslavia must be improved;

K. whereas the canal across the Isthmus of Corinth, by considerably shortening the distance by sea between the Adriatic and the Aegean, performs an important function in intra-Community sea transport, which is reflected in the considerable volume of goods carried on this man-made waterway; its preservation is therefore in the interest of the common transport policy,

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- L. whereas at the same time this canal is the product of an historic European undertaking and a remarkable monument from the early part of our industrialized age, which bears witness to the success of European cooperation; it is therefore particularly appropriate that the Community should assist in the preservation of this construction.
- M. whereas the Greek Government's plans to build a main transport link between Igoumenitsa and Volos are of considerable importance for the Community because it provides a transfrontier link for traffic in transit from the Italian Adriatic ports to the Middle East,
- N. whereas all European countries especially those with mountainous regions - whose roads carry large volume of transit traffic are endeavouring to switch such traffic, because of its adverse effects, to the railways by making use of the various possibilities for combined transport,
- O. whereas the construction of a rail limk between Igoumenitsa and Volos would incorporate North-Western Greece, which hitherto has been without rail connections, into the Community's railway network,
- 1. Requests the Commission to show understanding for the fact that Greece requires a fairly lengthy transition period for the implementation of certain provisions of Community law, in order to preserve the structure of its economy which is based on small and medium-sized undertakings;
- 2. Calls on the Greek government, however, to abolish as soon as possible bureaucratic obstacles to transport which cannot be justified on the grounds referred to in the previous paragraph, such as checks on green cards at frontiers;
- 3. Welcomes the comprehensive measures for the development of infrastructures for all forms of transport which have been adopted by the Greek Government in its Five-Year Plan;

<sup>&</sup>lt;sup>1</sup>OJ No. C 10 of 16.1.1984, p.93 ; KALOYANNIS report, Doc. 1-920/83

- 4. Welcomes the fact that the Greek Government intends to place special emphasis in that plan on the development of the railway sector;
- 5. Takes the view that, in the provision of financial assistance for transport infrastructure projects from Community funds, priority must be given to the development of rail transport, but that this must not result in the neglect of other forms of transport which are important for the Community;
- 6. Calls, therefore, for the appropriations available for Greece under the transport chapter of the Community budget to be concentrated over the coming years on the following projects of Community interest:
  - completion of the North-South rail link
  - preservation of the Corinth Canal
  - construction of a link between Igoumenitsa and Volos with an extension through Thessaloniki and Alexandroupolis as far as the Turkish border (preference being given to a rail link);
- 7. Points out that the granting of financial aid for further transport infrastructure projects in Greece under other Community instruments is to be welcomed from the point of view of the common transport policy; greater account should likewise be taken of the priorities of the common transport policy in the framework of the Community's other financial instruments;
- 8. Calls on the Greek Government to examine carefully, in the context of its plans for a main transport link between Igoumenitsa and Volos, whether the many adverse effects of increasing the volume of transit goods traffic on the roads and the advantages of connecting North-Western Greece to the European rail network do not militate in favour of building a high-speed rail link designed from the outset to meet the requirements of combined transport;
- 9. Urges the Commission already at this stage to accord the Greek Corinth Canal Company every possible assistance in its efforts to find suitable technical means of preserving the Corinth Canal:
- 10. Calls on the Commission to accord priority to the development of rail transport when reviewing its multi-annual programme for transport infrastructure and to endorse the proposals made in this report;

- 11. Calls on the Council thereupon to take the appropriate decisions with all speed;
- 12. Instructs its President to forward this resolution to the Council, the Commission and the Government of the Hellenic Republic.



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## Report

drawn up on behalf of the Committee on Transport

on transport problems in Greece with particular reference to infrastructure development

Rapporteur: Mr J. KLINKENBORG

- Part B : EXPLANATORY STATEMENT

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#### **Explanatory Statement**

#### I. General transport situation

- 1. Even in ancient times, when the Athenians took to their ships the better to defend themselves against Persian dominance, Greece's strength was on the sea. Today, as a result of geographical circumstances and political developments, Greece has the biggest national merchant fleet and, by its accession, made the Community into the world's foremost shipping power. For the same historical and geographical reasons, however, the development of land transport in Greece has lagged far behind economic requirements and technical possibilities. In air transport, on the other hand, Greece's international and domestic air communications are by and large satisfactory.
- 2. In spite of rapid economic growth there was no planned development of transport infrastructures in the 1960s and early 1970s in Greece; problems connected with shaking off the military dictatorship no doubt had a good deal to do with this. With Greece's membership of the European Community and the resultant importance of transport links with Central Europe, but also because of the need to avoid the Greek economy seizing up because of inadequate communications, it has become essential for Greece to accord priority to the the development of the infrastructures for land transport and for its connections with air and sea transport. Only by doing this will Greece be able to achieve its objective of becoming a centre for traffic from the Community to the Middle East.
- 3. The present Greek Government is aware of this problem and has adopted constructive plans for the development of transport infrastructures, which are described in detail below. In talks with the rapporteur the Greek Minister of Transport clearly explained that improving the transport system is an essential precondition for the implementation of the Greek Government's five-year development programme for the economy as a whole and that it intends to place particular emphasis on modernizing the totally obsolete rail system. On this question the rapporteur was pleased to note that the

See summary 'The Greek merchant fleet', Annex III

See the symmaries on 'Railways in Greece', (Annex I) and 'Road transport in Greece', (Annex II)

 $<sup>^{</sup>f 3}$  See summary 'Air transport in, from and to Greece', Annex IV

Greek Government is prepared to do all it can to support the efforts by the European Parliament's Committee on Transport to improve the situation of railways in the Community.

- 4. Overcoming the deficiencies in the development of infrastructures for land transport and its connections with other forms of transport in Greece calls for vast amounts of capital which, Greece, despite all its efforts, is unable to raise unaided. So far, the Greek Parliament has approved only part of the appropriations earmarked by the Government in the budget for the implementation of the Five-Year Plan. The need for Community assistance was already taken into account under the Second Financial Protocol as part of the preparation of Greece's accession to the Community. Since January 1981, Greece has received appreciable amounts from the Community's Regional Development Fund for the financing of transport infrastructure projects. European Investment Bank funding in Greece has also increased sharply since accession<sup>2</sup>. Moreover, the Greek Government expects, quite rightly, that due account will be taken of Greece's requirements when allocating financial resources for infrastructure projects from the Community's transport budget, since a number of the necessary development measures - as we shall see - are also of great importance for the whole Community in the transport field.
- 5. In Decision 83/472/EEC<sup>3</sup>, the Commission allocated 2.5 m ECU for modernizing the section of road between Kleidi and Axios, the road which links the Greek/Yugoslav border and the port of Volos, as part of the financial assistance from the 1982 transport budget<sup>4</sup>. Under the Commission proposal approved by Parliament<sup>5</sup>, funding is to be made available from the 1983 transport budget to finance the section of road between Axios and Gallikos bridge, which is part of the same route. Following decisions by the European Parliament<sup>6</sup>, 25m ECU are to be committed in the 1984 transport budget for projects in Greece. The Commission has proposed<sup>5</sup>, that they be used for a further section of the Larissa bypass, which has already been assisted, for work on the Athens-Peloponnese road link and for the renewal of the railway line between Larissa and Plati. The case for giving priority in the use of these funds to the improvement of rail links is explained below.

<sup>6</sup>General budget of the European Communities for the 1984 financial year, OJ No. L 12 of 16.1.1984, remarks to Article 781

<sup>&</sup>lt;sup>1</sup>See list of transport infrastructure projects in Greece assisted by the Regional Fund in 1981 and 1982 in Annex V.

<sup>&</sup>lt;sup>2</sup>See article by the EIB reproduced in Annex VI

<sup>&</sup>lt;sup>3</sup>0J No. L 259 of 20.9.1983, page 32

<sup>&</sup>lt;sup>4</sup>The specific importance of this road for the Community is that it will be particularly advantageous for road freight from the Community to the Middle East via the ferry between Volos and Latakia (Syria)

<sup>&</sup>lt;sup>5</sup>See Article 11 of the proposal for a Regulation on financial support for a multi-annual transport infrastructure programme COM(83) 474 final

- 6. In its resolution of 15 December 1983<sup>1</sup>, the European Parliament firmly rejected the principle of allocating appropriations for the promotion of transport infrastructure projects indiscriminately. Instead, it is up to the Commission, when making its final selection of the projects to be subsidized (and the same applies to the lists of proposals for the 1983 and 1984 financial years), to define priority areas consistent with the guidelines laid down by the European Parliament for the common transport policy. It is useful, therefore, transport the Greek Government's development programmes for the various categories of transport infrastructure in more detail, in order to provide the Commission with a number of indices for assessing the Community interest of various projects.
- 7. Greece's transport problems in the shipping sector are different altogether: here the problem is how to cope with the current crisis in world shipping with a large merchant fleet. Naturally, this can only be done through a concerted common policy. Addressing the Committee on Transport on 18 October in his capacity as President-in-Office of the Council, the Greek Minister for the Merchant Marine, Mr KATSIFARAS, said the Community should make use of its leading position in international shipping (since the accession of Greece) to pursue an active shipping policy. The main requirement of sea transport policy is not that Greece should be supported by the other Member States but that all shipping nations of the Community should endeavour to resolve their own problems within the framework of a common policy. This is really a separate issue and therefore is not covered in this report; it will be considered instead in a future report.

#### II. Modernization of Greek railways

8. The report drawn up by Mr COTTRELL on relations between the Community and Greece in the field of transport (Doc. 1-684/80), already painted a gloomy picture of Greek railways, highlighting problems of a decline or stagnation in the volume of freight and passengers carried, the inadequacy of its technical equipment and infrastructures and the lack of a customeroriented comercial policy<sup>2</sup>. The situation has hardly improved since then. Services – and hence demand – are still unsatisfactory and large areas of Greek territory are without any form of rail service.

<sup>1</sup> OJ No. C

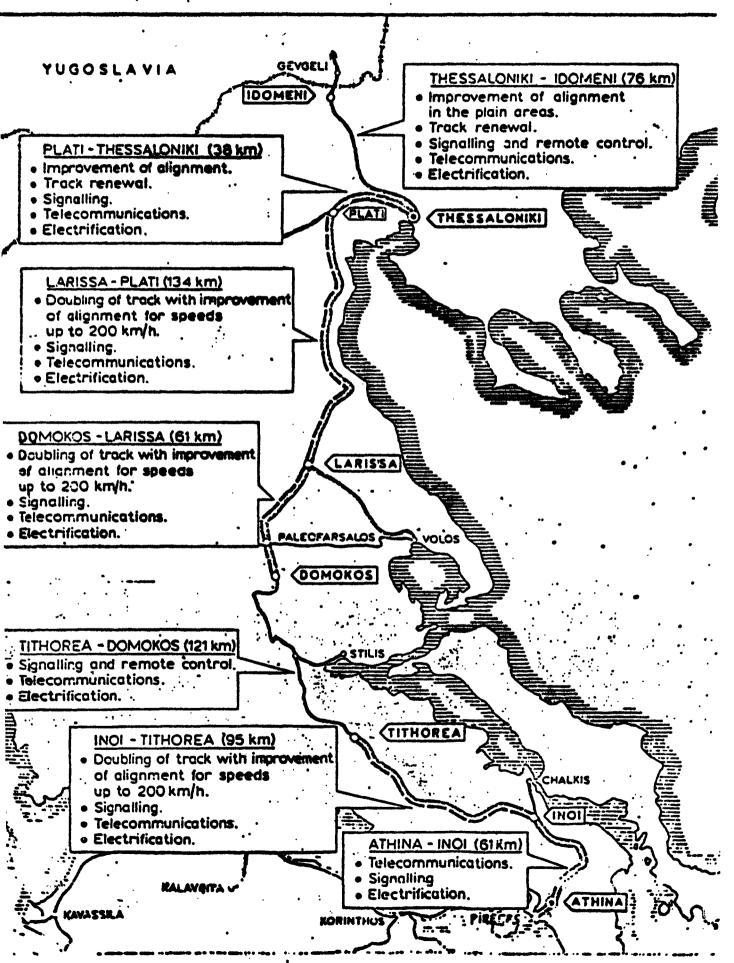
<sup>&</sup>lt;sup>2</sup>See Annex I

- 9. The objective of the Greek Government in its recently adopted fiveyear development programme for the period 1983 - 1987 is to modernize the rail network so as to improve services and, in particular, considerably increase train speeds. As a first step towards this objective, those sections of track on the main line from the Greek border to Athens which are on level ground are to be made into double-track sections. Given the lack of available resources, these relatively cheap measures are a way of achieving maximum practical benefit in the shortest time. At the same time there are plans to electrify the whole line and install modern signalling and monitoring equipment. In the longer term, this modernization will be completed by the construction of new sections of track, including long tunnels, an exercise which will be costly and technically difficult. By the time this work is completed, the distance by rail from the Greek/Yugoslav border via Saloniki to Athens will be reduced by 60 km to 536 kms as a result of re-routing, and trains will be able to travel at speeds of up to 200 km/h. In addition to this main line, existing branch lines are to be modernized, in particular a railway built between Athens and Patras to take speeds of up to 150 km/h<sup>2</sup>.
- 10. According to the documentation supplied to your rapporteur in July 1983, the Greek Government has estimated the cost of implementing the 1983-1987 five year programme for the development of the railways at approximately Drs 1000000 million, of which around Drs 36,000 million are covered by budgetary decisions of the Greek Parliament. According to the schedule proposed by the Government, the bulk of the spending will be in the second half of the programme; Drs 10,000 million are earmarked for the last year alone (1987) and more than half of the funding (approximately Drs 53,000 million) will not be committed until after 1987. If one includes other sources of finance, such as the European Regional Development Fund and the European Investment Bank, for which a figure of approximately Drs 3,000 million has been entered, there will be an estimated shortfall for the years 1983-1987 of around Drs 8,000 million if the programme is to be implemented according to the schedule laid down by the Government.
- 11. In addition to the projects included in the Five-Year Plan the Greek railways have further-reaching plans which are important for Greece's regional development; these include the modernization of the line crossing Thrace and construction of a new line between Kalabaka and Kozani in Central Greece.

<sup>&</sup>lt;sup>1</sup>See sketch on page 14

<sup>&</sup>lt;sup>2</sup>For details see summary table on page 15

# ENVISAGED MODERNIZATION PROJECTS ON THE MAIN LINE ATHINA-THESSALONIKI-IDOMEN



### The Greek five-year programme

### for railway development

	~ <del></del>		<del></del>
	Funds earmar	Funds.	
Project	overall	not to be committed until after 1987	approved in the budget
1	<del> </del>	1301	
1. Doubling of track and routing improvements on Idomeni - Thessaloniki - Athens line	15,6	4,525	7,376 (+ 1,1ERDF
2.Signalling system for 1	4,0	1,2	2,178 (+ 0,8 EIB)
3. Telecommunications for 1	1,8	- !'	1,0 (+ 0,4 EIB)
4. Electrification of line in l	11,0	7,0	4,3
5. Purchase of rolling stock	16,2	4,98	··· 9 <sub>e</sub> 51
6. Improvement of maintenance facilities	•	3,0	-
7. Renewal of permanent way and routing improvements on Thessaloniki - Alex-	-	4.490	- T / A 15EDN
androupolis - Ormenios line	2,0	1,480	Q,724 (+ 0,15ERDI
8. Renewal of signalling system for 7 9. Local improvements to permanent way,	4,5	3,5	1,5 (+ 0,225 ERDF)
routing and b <b>ridges</b>	1,0	-	0,675
10. Modernization of Paleaofarsalos- Kalabaka line 11. Mechanical equipment for track maint	3,5	1,0	3,0
enance and operating services	0, 54,4	0,145	0,6
12. Improving safety of level crossings	1,2	0,5	0,639
13. Restructuring of vehicle repair workshops	0,4		<b>0,</b> 233
14. Amalia engine sheds	0,4	-	0,23
15. Work on station buildings and track systems, sidings for industrial plant	·	-	0,104
16. Volos - Middle East ferry	0,4		0.11 (+ 0.086ERDF
17. Building complex in 'Aravasio Pedio' (district of Eleusis)	0,09	-	1,0
18.Doubling of track on Vera - Skidra line 19. Signalling system on the Platis -	0,35	0,08	0,35
Amideos - Kosanis - Florinas line	3,0	2,5	-
20. Improvement of Athens - Corinth - Piraeus line	25,0	22,8	1,2
21. Purchase of buses	0,5	-	0,28
22. Installation of an automatic train		-	
monitoring system	0,35	- 1	0,35
23. Purchase of a computer	0,1	-	0_07
24. Meeting commitments under existing supply contracts	2,0	0,59	1,812
Total	98,134		37,241 (+ 1,566 ERDF) (+ 1,2 EIB)

Another Greek railways project designed to speed up freight transport, which is not included in the Five-Year Plan, is the modernization of existing or construction of new goods stations and marshalling yards, for instance in Thrace (Drs 10,000 million) and in Thessaloniki (Drs 4,000 million). In the latter case a link is also to be built to the port on Saloniki to develop the use of railways for transporting goods landed at Saloniki on to Yugoslavia (1982: 0.53 m tonnes), Bulgaria (1982: 0.09 m tonnes) and Central Europe (1982: 0.015 m tonnes).

- 12. In the Committee on Transport's view, the need to strengthen the competitive position of the railways is a basic tenet of the common transport policy, and would enable the Community drastically to improve the railway's financial situation, increase transport safety and make a positive contribution to the more rational use of energy and environmental conservation. Further to the GABERT report on the future of the Community railway network (Doc. 1-982/81), the European Parliament expressed the view in its resolution of 9 March 1982 that the construction of the major trans-European railway line laid down in the infrastructure master plan of the International Union of Railways was of great Community interest and should be backed by financial assistance from the Community.
- At present the rail service from Greece to Central Europe is not competitive. The average time taken by goods trains - that is, those which are not part of the trans-European express service - ranges between 6 and 14 days, while lorries can generally cover this distance in 48 hours. Only by using the trans-European express service, which transports fruit and vegetables from Thessaloniki to Munich, is it possible to cover the 1,692 km distance in around 40 hours<sup>2</sup>, i.e. more quickly than by lorry. The fact remains, however, that this is an advanced service which requires special techniques; given the existing infrastructures, it cannot be extended both for reasons of capacity and because it would not be an economic proposition for many other types of goods in view of the high costs. Traffic has declined accordingly in recent years (for example, passenger traffic between Germany and Greece fell by around one-third between 1972 and 1978) and the railways were therefore obliged to cut services on that route. A modern rail link is needed both on the transit route through Yugoslavia<sup>5</sup> and in Greece to remedy this state of affairs. Moreover this line should be planned from the outset so as to be compatible with the requirements of piggy-back transport.

<sup>&</sup>lt;sup>1</sup>OJ No. C 87 of 5.4.1982, page 43

<sup>2</sup> i.e. their average speed is 42 km/h. Comparable trains on the German rail network, for example, reach average speeds of 60 km/h.

Rail transit traffic through Yugoslavia suffers just as much from the inadequate infrastructure as from the excessively high transit rates charged by the Yugoslav railways. The creation of a modern infrastructure should therefore be accompanied by an alignment of transit rates charged by Yugoslavia with those in the Community. The Community could make the granting of future financial aid to Yugoslavia contingent upon such an arrangement. The loss of revenue to the Yugoslav railways is likely to be offset by the potential increase in traffic volume in the medium term.

14. It is for this reason that the completion of the railway line in Greece from Idomeni via Thessaloniki to Athens, which forms the final section of the mainline Minden - Salzburg - Laibach - Belgrade - Thessaloniki - Athens and is thus the lifeline linking Greece and Central Europe, is of prime importance for the European Community and should be expedited by granting financial assistance.

#### III. The development of road transport

15. The rapid growth in the Greek economy in the 1960s was reflected in particular in a rapid increase in road traffic. Between 1965 and 1979 the number of cars registered rose by 706% and the number of goods vehicles by 440%. In fact, certain goods, such as perishable agricultural produce, are carried mainly by road. The biggest problem affecting goods transport in Greece at the moment is that of harmonizing the national transport system with the international transport system, firstly because of the seasonal nature of demand and secondly because of the still unresolved problems involved in transit through Yugoslavia. Hence, efforts are being made for the future to also expand the transit links through Italy; however, before this can happen, the bottlenecks (particularly administrative barriers) affecting transport from Italy to Central Europe must be eliminated.

Secondly, there are also problems of adaptation to Community law for which there are no obvious reasons. For example, Greece has still not signed the supplementary agreement of 12 December 1972 on compulsory insurance against civil liability pursuant to Council Directive 72/166/EEC<sup>1</sup>; this agreement constitutes the basis for the mutual recognition of green cards and enables the abolition of checks on green cards at frontiers<sup>2</sup>. Signing this agreement would mean the disappearance of tiresome and unjustified red tape at frontiers.

<sup>&</sup>lt;sup>1</sup>See 0, No. L 103 of 2.5.1972

 $<sup>^{2}</sup>$ See Written Question No. 658/83 by Mr SEEFELD (OJ No. C 296/83 page 15)

<sup>&</sup>lt;sup>3</sup>On points of detail see Annex II 'Road transport in Greece'

A summary of the Community's previous involvement with this main transport route is given in Annex VII.

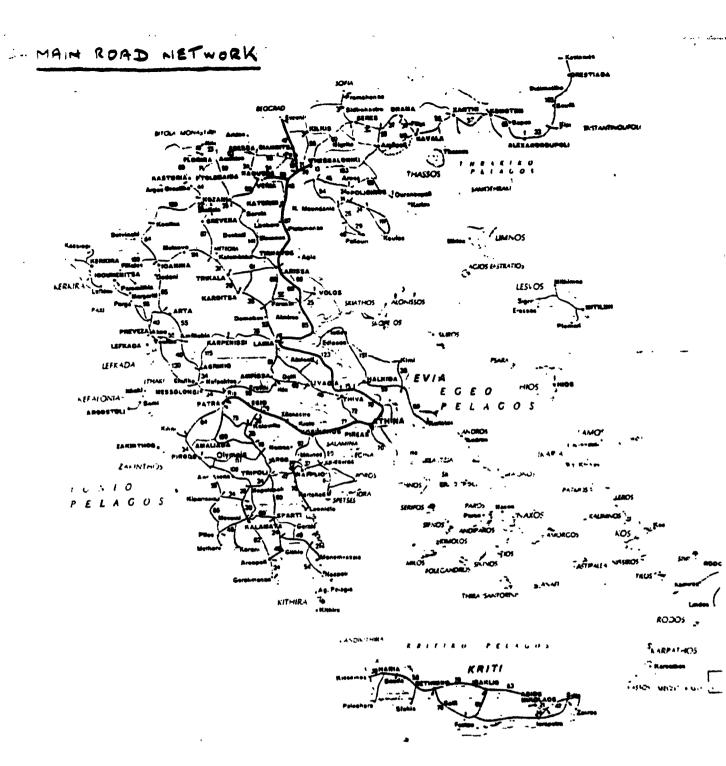
- 16. The structure of the commercial road haulage sector is characterized by the existence of small and very small firms. This gives rise, inter alia, to certain difficulties in the adaptation of provisions on admission to the occupation and recognition of certificates in international passenger transport and road haulage operations to existing Community law. Greece was allowed a three-year period, which expires on 1 January 1984, to make these adjustments. The Commission should show a certain amount of comprehension for these difficulties, lest irreparable damage be caused to Greece's present commercial structure as a result of over-hasty measures.
- 17. The present network of roads in Greece<sup>3</sup> is unsatisfactory for a number of reasons<sup>4</sup>: because of the state of the roads and traffic volume, driving speeds are low and the accident risk is high; it is very difficult to reach certain remote areas. The Greek Government has therefore put forward a development plan for the next twenty years in which it sets out various objectives in the field of regional development and regional planning as well as in social and economic fields. A particular objective is to strengthen the links between the various regions of the country and facilitate access to remote areas. Traffic flow and safety are to be improved on the major trunk roads by means of modernization measures and, in particular, the construction of bypasses around towns. The Greek Government has based its development plan for the road network on five main traffic axes, namely:
- (a) the North-South axis: Yugoslav border Thessaloniki Larissa Volos -Lamia - Athens - Corinth - Tripolis - Kalamata;
- (b) Igoumenitsa Patras Pirgos Olympia Kalamata
- (c) the West-East link: Igoumenitsa Kozani Thessaloniki Kavala Turkey;
- (d) Igoumenitsa Joannina Trikala Larissa Volos;
- (e) Athens Patras

Directives 74/561/EEC of 12.11.1974, OJ L 308 of 19.11.74, p.18 74/562/EEC of 12.11.1974, OJ L 308 of 19.11.74, p.23 77/796/EEC of 12.12.1977, OJ L 334 of 24.12.77, p.37

<sup>&</sup>lt;sup>2</sup>See Annex XII to the Treaty of Accession of the Hellenic Republic to the European Communities

<sup>&</sup>lt;sup>3</sup>See map over

<sup>&</sup>lt;sup>4</sup>On points of detail see Annex II 'Road transport in Greece'



18. Axis (a), particularly the section between Thessaloniki and Athens, is the backbone of the Greek road transport system. At the same time it is the main link with Central Europe for the carriage of goods by road and - since the introduction of a ferry service from Volos to Syria - has also became the main transit route to the Middle East. In recent years the section between the Yugoslav border and Thessaloniki was upgraded to motorway standard, a project to which the Community gave financial backing. The Commission has proposed that further work on this axis (e.g. the Larissa bypass) should be subsidized by the Community. The Greek Government has budgeted for an investment of Drs 95,000 million\* to complete the required improvements over the whole route.

<sup>\*1962</sup> prices

- 19. Axis (b) is important for two reasons: first it opens up the north-western part of Greece (Epirus) by means of a road link via axis (e) to Athens; secondly, it opens the western Peloponnese. A project to complete this route by bridging the Gulf of Corinth between Rion and Autirion is being studied; its cost is put at approximately Drs 20,000 million\*.
- 20. Axis (c) links the main Adriatic port, Igoumenitsa, with Thessaloniki and the north-eastern towns of Kavala, Xanthi and Komotini. As the only road link with Turkey, this axis is also important for road transit to the Middle East. Since oil discoveries have been exploited in the region of Thasos, traffic eastwards from Thessaloniki has grown appreciably. Modernization work costing Drs 10,000 million\* is planned to improve safety and traffic flows.
- 21. Axis (d), for which a tunnel has to be driven through the Pindus mountain range, is meant to provide road communication between the Mediterranean port of Igoumenitsa and Volos, the port from which the ferry sails to the Middle East. This axis forms part of a long-term plan for international regional and transport development, designed to increase traffic between the Apulian ports of Italy via Greece to the Middle East. The cost of the Greek part of this work is estimated at Drs 50,000 million.
- 22. Lastly, axis (e) not only links the ports of Patras and Corinth but also links Epirus with Athens via axis (b). Parts of this route have already been modernized. Further improvements are to be made under the development programme.
- 23. It is estimated that the overall cost of improving the Greek road network, including the network of regional roads, to meet present-day requirements will be of the order of Drs 520,000 million\*.
- 24. As far as the common transport policy is concerned, one of the road-building projects currently under way in Greece is considered to be of particular Community interest, namely the completion of axis (a), not only because of its importance for the Athens-Thessaloniki-Central Europe link but also as a part of the transit route to the Middle East. Consequently, the Committee on Transport unanimously approved the granting of financial aid by the Community for this road project for the 1982, 1983 and 1984 financial years. In addition, considerable Community importance is also likely to be attached to the Igoumenitsa-Volos road given its importance for transfrontier traffic, and the Commission should study this project carefully.

<sup>\*1962</sup> prices

At the same time, the Commission should carefully consider whether in this case it would be not advisable — since a transit route is involved — to build a rail link. Those countries in Europe whose raods carry a large volume of transit traffic are currently endeavouring, because of the adverse effects of such traffic, to encourage a switch to rail transport (e.g. using the piggyback system). There might be a good case for building a high-speed rail link designed from the outset to carry piggyback traffic between Igoumenitsa and Volos, thus avoiding the problem of road transit; at the same time, north-western Greece would at last be linked to the railway network.

25. Generally speaking, the improvement of road transport infrastructures tends to generate more traffic which in turn causes fresh bottlenecks on the new roads. Responding to this by expanding the infrastructure even further triggers off a vicious circle which continues until the whole country is criss-crossed with roads. Given that the Greek Government, for the various reasons which have been described, gives priority at the present stage to the development of rail transport, the Community should allocate its financial support in the coming years to the upgrading of the rail network rather than for road-building projects, so as to promote the harmonious development of the Greek transport system.

#### IV. Infrastructures for sea and coastal shipping

- 26. As already mentioned (paragraph 7) the question of framing an active shipping policy for the European Community within which the specific problems of Greek shipping can also be solved will be discussed in a future report. Because of the major economic importance of sea transport, however, it is inevitable that we should devote some attention to the points where it interacts with overland transport. This section is perhaps an appropriate place to illustrate the problems of a structure which is interesting from the European point of view for many reasons, namely the canal across the Isthmus of Corinth.
- 27. Sea traffic from and to Greece is handled in 186 ports, whose technical facilities, capacity, warehousing space and connections to the mainland transport network are not always satisfactory. Appreciable efforts are being made to improve matters, particularly in Piraeus, Thessaloniki and Volos, but such measures are limited by the scarcity of financial resources and the proximity of conurbations.

<sup>&</sup>lt;sup>1</sup>See Annex III 'The Greek merchant fleet'

Productivity of the main Greek ports

Port	Potential capacity (tonnes)	Warehousing space (in sq. metres)	No. of persons employed
Pirāus	9 125 000	1 500 000	5 458
Thessaloniki	10 500 000	316 000	1 655
Heraklion	5 000 000	9 000	393
Patras	3 000 000	20 000	527
Volos	3 000 000 .	23 000	312
Kawala	3 000 000	30 000	250
Igoumenitsa	3 000 000	6 000	61
Kalamata	2 500 000	28 000	212

- 28. The Greek Government has earmarked investments of Drs 4,450 and 4,250 million\* respectively in its 5-year development programme for the extension and modernization of port facilities at Piraeus and Thessaloniki. There are also associated projects, such as the building of a new goods station near the port of Saloniki and the construction of a modern customs warehouse by a (solely publicly owned) warehousing company near the port of Piraeus, which will help to improve connections between the various forms of transport.
- 29. The port of Volos has particular development potential, since the sheltered bay of Pagasitikas creates a vast outer harbour covering 300 morgens of water and 150 morgens of land\*\*. Since the introduction of the ferry link to Syria, traffic through this port has increased considerably (see table below) and a start has been made on the construction of a new pier including connections to the rail network. For the development of the port of Volos on the landward side, two projects are particularly important: the planned electrification of the North-South railway line and the construction of a motorway to the Yugoslav frontier.

Vehicles transported on the Volos-Syria ferry link				
Year	from Volos	from Syria	Total	
1978	8,007	6,294	14,301	
1979	27,772	23,187	50,909	
1980	24,355	18,114	42,469	

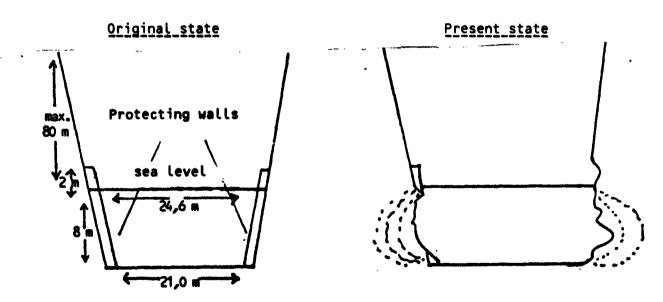
<sup>\*\*</sup>Translators note: A morgen is equivalent to approx. two-thirds of an acre
\*1962 prices

- 30. The question of creating free ports to promote certain areas, raised in the motion for a resolution by Mr KALOYANNIS (Doc. 1-450/83), is a special case. It has been found from experience that ports are generally given the status of a free port from the competent authorities if the volume of traffic so warrants and in particular, if turnover is large enough to justify the special administrative arrangements on economic grounds. The creation of free ports does not seem appropriate, however, for promoting the economic development of less-favoured areas.
- 31. Clearly, therefore, the Greek Government is making considerable efforts to adapt their ports to present-day transport requirements and to keep them competitive. The total cost of the work involved in modernizing the ports under the five-year development plan is put at Drs 35,000 million. It is also clear that sufficient attention is being paid to links with seaports in the development of the mainland transport system. Consequently, there is no immediate need for Community action in this area.
- 32. The problems raised by the repair work needed to the canal across the Isthmus of Corinth are an altogether different story. This 6.3 km long canal is a unique structure in Europe: it crosses the at times 80 metres high isthmus between the Golf of Corinth and the Gulf of Aegina at sea level, threby shortening the distance by sea between the Adriatic and the Aegean by some 200 km.
- 33. The section of the canal is trapezoidal; its width of 24.4 metres at sea level and 21 metres at floor level and its 8 metres depth of water enables it to take ships of up to 40,000 GRT. In 1981 it was used by 8,813 freight and passenger vessels and 4.3 million tonnes of merchandise were carried. In 1982 if igures were 9,339 ships and 4.4 million tonnes of goods transported. The traffic is mainly international but the canal is also used by vessels engaged in national coastal shipping (cabotage) and, to an increasing extent, by leisure craft. A considerable proportion of the traffic (1981: 2,472 vessels, 1982: 2,280 vessels) sails to or from the Northern Adriatic.
- 34. In addition to its obvious importance in terms of transport, the Corinth Canal also has a great symbolic significance for the Community as a historic monument. Even in ancient times, ships were conveyed by land across the Isthmus of Corinth and this practice is said to have brought untold riches to the holy orders who provided this service. As far back as pre-Christian times there were many plans to cut through the isthmus and a number of attempts were made, the last and most serious attempt being initiated by the Roman emperor Nero.

with his death the work on this project ceased and was not resumed until 1687 when the project was undertaken again by the Republic of Venice - likewise without success.

- 35. It was not until the invention of dynamite that the plan could be put into action. The canal in its present form was built between 1882 and 1893 under the direction of a Hungarian general and with international financing at a total cost of 72 million French gold francs. The management and upkeep of the canal was placed in the hands of the 'Greek Corinth Canal Company' which is now owned by the Greek state. Thus, the canal is a remarkable monument from the early part of our industrialized age and at the same time bears witness to the success of European cooperation.
- 36. The Corinth Canal is in danger because an essential part of its structure, namely the walls which buttress the canal sides (see sketch) has been largely destroyed by collisions and currents. \* As a result the unprotected parts of the canal sides are being eroded and undermined by the strong currents which arise, and are thus ultimately in danger of collapse.

#### Cross-section of the Canal



<sup>\*</sup>The state of these protecting walls was photographed by video-camera in 1983. When they were originally built the walls covered a total length of approx. 8 km.; now 2 km. are completely missing and a further 2 km. are badly eroded; the remainder is in danger of collapsing.

- The remains of the original protecting walls, fill in the parts that have been eroded at the base of the side walls and put in place a new protective system which will withstand the effects of currents, occasional collisions, movements of the earth's crust and atmospheric erosion. Furthermore, the work will have to be carried out without draining the canal, so as not to affect its function as a waterway. The Corinth Canal Company, which is responsible for the preservation measures, has yet to come up with suitable technology to meet these requirements. To this end it recently published an invitation to tender in the Official Journal of the European Community. In addition, the Commission should also give the Canal Company every assistance to find the appropriate technology.
- 38. Apart from the problems of technical feasibility, there are also difficulties regarding the financing of the necessary conservation work, which is estimated by the Greek Government at a total of at least Drs 5,000 million. While the Canal Company admittedly makes a profit from the operation of the canal, this is not sufficient to finance the project. It is natural to expect an appropriate contribution to the cost of the maintenance work from the Greek state, which has benefited from the profits of the Canal Company for many years. However, in view of the importance of the present canal in terms of transport and its special symbolic significance, the Commission in conjunction with the Greek Government should give sympathetic study to the possibility of subsidizing this project from the appropriations allocated to Greece when reviewing its multi-annual experimental programme in the field of transport infrastructure.

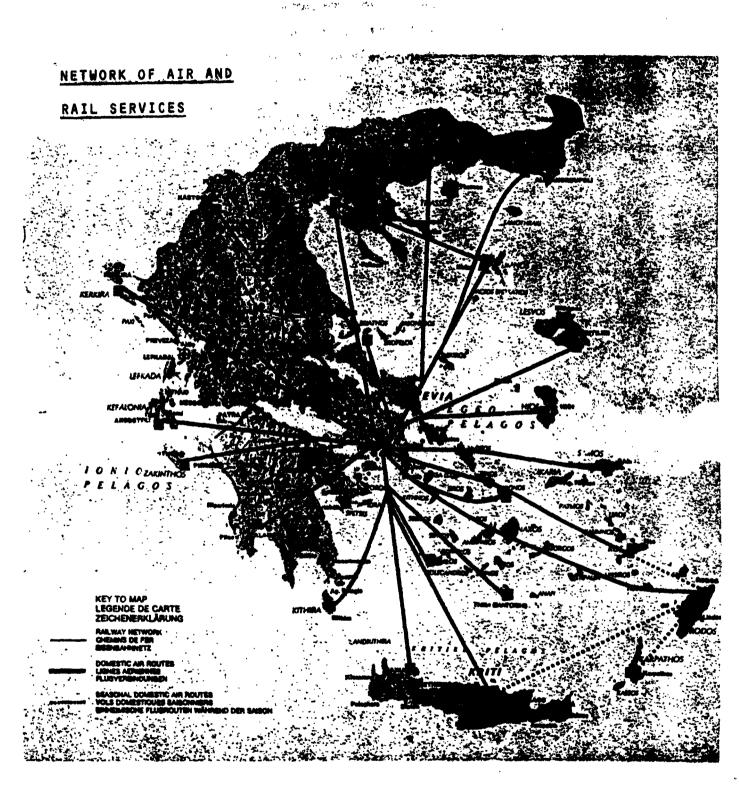
#### V. Air transport

39. The development of air transport is important for Greece not only in terms of major international air routes but also in relation to tourism (particularly charter flights), certain air freight routes and also domestic traffic, particularly to the islands<sup>1</sup>. Domestic flights follow the 'hub and-spoke' pattern with Athens airport at the centre, from which most international flights also depart (see sketch on page 27). In addition to Athens, there are a further 14 international airports which are of importance mainly for charter traffic, and 18 airports handling domestic flights only.

See Annex IV for a summary (Air transport in, from and to Greece')

40. The economic structure of the air transport sector is comparable with that of the other Member States of the Community. There is a state-owned airline (Olympic Airways), which handles the bulk of air traffic to, from and within Greece and is a member of IATA. Consequently, the economic problems are the same as in the rest of the Community. A particular situation has now arisen with regard to the authorization of scheduled inter-regional air services, because when the Council adopted Directive 83/416/EEC of 25 July 1982<sup>2</sup> airports on the Greek islands were exempted from its application for a period which can extend up to 20 years. The Community has undoubtedly to understand that because of the particular situation of traffic to the Greek islands the Greek Government is endeavouring to offset the losses incurred by maintaining air services in the winter by profits from the increased traffic during the tourist season. On the other hand, there is the consideration that more inter-regional services will relieve the pressure on Athens airport and thus may also lead to considerable savings in capital investment. At the same time, by Levying appropriate airport charges the islands could obtain additional revenue which could be used to further their economic development. Consequently, the Greek Government must endeavour to expedite the changes needed in the air transport sector so that the directive on the authorization of scheduled inter-regional air services can be also applied to the Greek islands by 1 July 1983.

<sup>1</sup> see summary in Annex IV 20J No. L 237 of 26.8.1983, p.19



- 41. The main problems of air transport in Greece are
  - the lack of adequate air traffic control facilities<sup>1</sup>;
  - inadequate safety at some airports (e.g. Heraklion)<sup>1</sup>
  - the overloading of Athens airport<sup>2</sup> and bottlenecks at a number of other airports<sup>3</sup>.

Since these matters are discussed in detail in the own-initiative reports drawn up by the Committee on Transport on the subject of European transport policy, further discussion of them here is unnecessary.

42. For the sake of completeness, however, it should be pointed out that of the Drs 19,100 million which the Greek Government intends to invest in airtransport unders its five-year development plan, Drs 2,900 million are earmarked for improving air traffic control and Drs 12,400 million for eliminating the problems requiring most urgent attention in the airports. Of the latter, Drs 8,900 million are earmarked for the 15 international airports and Drs 3,500 million for the 18 domestic airports. It should also be noted that in the report drawn up by Mr BAUDIS (Doc. 1-979/83) on the multi-annual transport infrastructure programme, the Committee on Transport was in favour of financial support for airport projects from the Community's transport budget with the proviso that the funds should be used for improving the links between the various forms of transport. An expansion of air transport facilities, on the other hand, can only be judged according to economic criteria and Community aid for such projects can only be justified in relation to regional development.

#### VI. Concluding remarks

- 43. We have seen from the foregoing that the funds earmarked for Greece in the Community's transport budget should be concentrated in the coming years on the following projects of Community interest
- the completion of the North-South rail link
- the preservation of the Corinth canal
- the Igoumenitsa-Volos axis with an extension through Thessaloniki and Alexandroupolis as far as the Turkish border (preference being given to a rail link)
- 44. This does not mean that other important transport infrastructure projects included in the Greek Government's development plans do not warrant financial support from Community funds. In the last few years Greece has received

On this subject see the report drawn up by Mr RIPA di MEANA on air transport safety

<sup>&</sup>lt;sup>2</sup>See also the report by Mr K.-H. HOFFMANN on the construction of airports in the Community

<sup>&</sup>lt;sup>3</sup>See the summary table in Annex IV

considerable financial assistance from the Community's structural funds (Social and Regional Fund: 1981: 135,540,000 ECU; 1982: 168,880,000 ECU; Agricultural Structures Fund 1982: 45,550,000 ECU), and a substantial proportion of these funds were channeled into the development of transport infrastructure<sup>1</sup>.

European Investment Bank financing in Greece has similarly increased sharply since accession<sup>2</sup>. Moreover, it should be made clear that the Community – apart from the facilities of the European Investment Bank – has no suitable instrument for granting assistance to deal with the serious transport problems of cities. At any rate, the common European transport policy in its present state of development is unable to deal with these problems.

- 45. Despite the fact that the European Parliament and the Commission have called for 25% of the available funds to be earmarked for Greece, the low level of funding specifically allocated to transport infrastructure development means that for such support to be effective it must be concentrated on a very small number of projects, which must be selected on the basis of priorities laid down for the further development of the transport system within the common transport policy. The fact of setting priorities does not mean the Community is interfering in the comprehensive development programme of the Greek Government drawn up to respond the needs of Greece. It is simply a question of speeding up the implementation of a small number of measures from this programme, which are particularly important in terms of the Community's transport needs, by means of financial contributions. This financing does not preclude the granting of aid under other financial instruments.
- 46. In its Communication of 29 March 1983 on Greece in the Community the Commission also considered the transport sector and similarly expressed a favourable opinion on the five-year development plan. The Commission's conclusions with regard to financial support for infrastructure projects from the Community's transport budget differ from the line taken by the Committee on Transport inasmuch as the Commission emphasizes the need for a North-South road link in addition to the improvement of the North-South

Annex V contains a summary of the transport infrastructure projects assisted by the Regional Development Fund in 1981 and 1982

<sup>&</sup>lt;sup>2</sup>See summary in Annex VI

<sup>&</sup>lt;sup>3</sup>com(82) 134 final

rail link and does not mention the Corinth Canal.

47. The Commission should therefore be requested to accord priority to the development of rail transport, in line with the views of the Committee on Transport, and to endorse the proposals made in this report.

#### RAILWAYS IN GREECE

#### A. THE RAIL NETWORK

- 1. The existing rail network is linear, with the exception of Thessaly and the Peloponnese. This linear development of rail links limits the scope for transport development, confining it to those areas of the country close to the railway line.
- 2. The total length of the rail network is 2,400 km. All lines are single-track (one track for trains in either direction) with the exception of the double-track sections between Athens and Inoy, (61 km), Plati and Thessaloniki (38 km) and Saint Anargiri and Elevsis (20 km). The existing network was built at the beginning of the century and as nothing has been done since then to improve its infrastructure, it has the following weaknesses.
- 3. Only about 60% of the entire rail system is standard gauge while there are two separate sections which are one-metre gauge. This lack of uniformity has adverse effects both on the rational use of rolling stock and on the economic operation of the network.
- 4. The track is characterized by sharp bends and gradients. Although the track was satisfactory when it was laid 80 years ago, it is not suitable for modern high-speed rail travel. Moreover, the fact that the line is only single-track and lacks traffic signals and modern telecommunications means that it is basically unsuited to the requirements of modern railway operation. The network as a whole (sleepers and rails) is out dated and requires spending on maintenance and running costs.
- 5. Lastly, the large number of level crossings poses a serious problem both in terms of traffic safety and of reducing journey times.

#### B. ROLLING STOCK MAINTENANCE FACILITIES

6. The current state of the factories and workshops in which rolling stock is maintained is not satisfactory.

Plant, equipment and organization need to be expanded and modernized, particularly since the rapid changeover from steam to diesel.

## C. BUILDINGS, STATIONS AND MARSHALLING YARDS

7. Apart from some new and refurbished buildings, most of the installations, passenger buildings, goods warehouses, administrative buildings, stores for materials and spare parts are still more or less as they were when the lines were first built.

In many stations and yards the platforms are insufficient in number and length, which prevents trains running or limits their length.

8. The present lack of modern marshalling yards, mechanical handling facilities and properly organized dispatching services is the main reason for the difficulties the Greek railway authorities are experiencing in moving goods rapidly and keeping trains running on time.

## D. BOTTLENECKS IN THE GREEK RAIL NETWORK.

## a) Lines with heavy commercial traffic which lack sufficient capacity

	Line	Section	Length of	Remarks
	ATHENS -THESSALONI KI	TITHOREA-DOMOKOS	122	
×	THESSALONIKI -IDOMEN I	THESSALONIQUE-IDOMENT	75	
je track	THESSALONIPITHIO- ORMEDIO	SERRE-ORMENIO	445	CAPACITY OF LESS THAN 50 TRAINS PER DAY AND
gauģė	LARISSA-VOLOS	LARISSA-VOLOS	61	SPEEDS OF LESS THAN 50 KM/H
1 7		PLATI-AMINDEO	125	
tandard	PLATI-AMINDEO- COZANI-FLORINA	AMINDEO-COJANI 60		
8	COLITIZATION COLOR	AMINDEO-FLORINA	34	
gauge	ATHENS :-CORINTH - PATRAS-CALAMATA	PIRGOS-ZEVGOLATIO	86	
	ATHENS CORINTH	CORINTH -TRIPOLIS	121	CAPACITY OF LESS THAN 40 TRAINS
-metre track	TRIPOLIS-CALAMATA	TRIPOLIS-ZEVGOLATIO	83	PER DAY AND Speeds of Less
One-F	VOLOS-CALAPENKA	VOLOS-CALAMBAKA	161	THAN 50 KM/H

## (b) Necessary rail links which do not yet exist

- Athens station port of Piraeus
- Patras station port of Patras

## (c) Marshalling yards in need of improvement

- Thessaloniki marshalling yard
- Larissa marshalling yard
- Athens goods and passenger station (lines to Larissa and to the Peloponnese)
- Piraeus goods and passenger station
- Eleusis goods station
- Corinth shunting yard
- Plati station

## E. TABLES

	LENGTH OF	GREEK	RAIL NE	TWORK (i	n km)		
Network	:938	1973	1974	1975	1976	1977	1978
Standard gauge	1 435	1 560	1 560	1 565	1 565	1 565	1 565
Narrow gauge	1 121	983	983	911	914	914	914
Total	2 557	2 543	2 543	2 476	2 479	2 479	2 479

(No. of	units) ROLLING	STOCK HELD	BY GREEK RA	ILWAYS
End of Year	Steam and diesel locomotives	Railcars	Passenger coaches	Goods Wagons
1938	338	22	610	5 826
1970	214	126	368	9 594
1971	230	126	353	8 966
1972	194	132	331	9 230
1973 -	166	135	331	9 443
1974	188	126	387	10 232
1975	194	119	440	10 268
1976	150	176	439	10 181
1977	127 (2)	162.	447	10 315
1978	127	163	397	10 252

D	OMESTIC /	AND INTER		PASSENGER (1976-1978)		ON GREEK	RAILWAYS	
Domestic International TOTAL								
			Departu	ıres	<sup>†</sup> Ar	rrivals		
Year	No. of passen-	lagr	No of passen-	Passenger kms	No. of passen	Passen- gers kms	No. of passeng- ers	Passen- ers kms
1976 1977 15/8	12 461 13 031 10 286	1 470 793 1 529 933 1 466 184	139	47 000 38 448 38 991	257 195 227	64 889 54 452 62 606	12 897 13 365 10 661	1 582 682 1 622 833 1 567 781

	DOMESTIC AND INTERNATIONAL GOODS TRAFFIC ON GREEK RAILWAYS (1976-1978)							
	Domest	ic	International			TOTAL		
	Tonnes	Tonne kms	Tonnes	Loaded	Tonnes	unLoaded	Tonnes	Tonne kms
1976 1977 1978	1 897 1 855 1 829	494 727 499 216 492 480	1 002 1 005 551	172 395 174 383 125 316	626 628 708	176 547 181 836 192 377	3 526 3 488 3 594	844 495 855 436 854 342

- (1) Source : Greek National Statistical Office
- (2) Steam locomotives were taken out of operation in 1977.

## Road traffic in Greece

## A. Size of the road network

Compared to the rail network, Greece's road network is relatively dense and serves the entire territory with the exception of a few mountain villages. Admittedly, not all roads in the mountainous areas are passable the whole year round. According to calculations by the Greek Ministry of Transport there is an average of 0.3 km of road per square kilometre in Greece; this figure is roughly the same as in Bulgaria and Romania (0.35 km), but is far less than France (1.45 km) or Germany (1.93 km).

DEV	ELOPMENT OF	THE ROAD	ETWORK IN	GREECE	
National	1965	1970	1975	1976	1981
road network	7 704	8 093	8 728	8 742	8 900
Regional road network	25 802	31 293	31 082	31 270	31 300
Total	33 506	39 386	39 810	40 012	40 200

## B. State of the road network

42% of national roads are no more than 6.5 m wide and 32% are between 6.5 and 7.5 m wide; only 7% of the network is wider than 10 m. Speed limits on the national road network are generally low. On over 78% of roads the speed limit is 60 km/h and 70 km or more on only 35% of roads. On 80% of roads the speed limit varies between 50 and 70 km/h.

On most roads (51%) traffic flows are intermittent and traffic conditions are generally difficult.

Good traffic conditions and high quality roads are to be found in only 19% of the national network. Intermittent traffic flows and reduced speeds are a feature of 30% of the road network.

## D. The role of road traffic in the Greek economy

The volume of goods traffic carried by road has increased significantly in recent years in comparison with rail. Nevertheless, the bulk of imports and exports (raw materials, capital and consumer goods) is still carried by sea.

The situation is different in the agricuttural sector, where most of the produce in international trade is carried by road (inter alia, in a fleet of modern refrigerated lorries).

	FORMS OF TRANSPORT FOR IMPORTS AND EXPORTS								
Year	Roa	ıd	Rail Air Se			a			
	Million	% of	Million	% of	Million	% of	Million	% of	
	tonnes	total	tonnes	total	tonnes	total	tonnes	total	
1974	514.3	1.72	1,006.2	3.37	16.4	0.06	28 <b>,2787.</b> 5	94.8	
1977	1,352.2	4.90	958.9	3.1	22.8	0.08	25 <b>,</b> 180	91.5	

	TREND IN NUMBER OF VEHICLES							
	1965	1970	1975	1979				
Private cars	104 257	226 893	435 342	839 341				
Buses	8 485	10 546	13 414	16 136				
Lorries	64 930	107 361	196 444	351 052				
Motor cycles	49 439	69 246	87 800	110 308				
Total	227 111	414 046	733 000	1 316 837				

Category	Total length	Good condition	Average condition	Poor condition	Less than 6 m wide	  More than  6 m wide
NATIONAL	8.950	7.600-85 X	. 800-9 X	400-4,5 %	1.300	7.500
REGIONAL	31.300	14.700-47 %	8.100-26 %	5.800-18,5 %	16.000	12.600
TOTAL	40.250	22.300-55 %	8.900-22 <b>%</b>	6.200-16 %	17.300	20.100

C. The volume of traffic is such that only a very small fraction of the Greek road network is saturated, and, despite the steadily increasing number of vehicles on the roads, traffic on the majority of the road network is well below capacity. The trend in total daily volume of traffic has been as follows:

1967	10,634,000	vehicle	/kilometres	per	day
1972	18,536,000	11	**	11	**
1975	21,462,000	**	**	**	**
1979	22,000,000	11	**	**	**
1981	25,000,000	**	••	**	

In 1981 the number of vehicles using the main road between Athens/ Thessaloniki and the Yugoslav border each day on average is as follows:

- (a) the section between Evzoni and Axios, 2567 vehicles, of which 21% are goods vehicles this figure includes 1383 vehicles which crossed the frontier, 14.6% of which were goods vehicles;
- (b) on the section Axios Athens, 9183 vehicles, 26% of which were goods vehicles.

## The Greek merchant fleet

## A. Importance to commerce

Sea transport has always been the principal form of transport in Greece.

In 1971 it accounted for 94.85% carrying 28,300 m tonnes and in 1977, 91.5%, carrying 25,200 m tonnes.

A correspondingly high proportion of Greece's foreign trade is carried by sea (see table opposite)

Kear	Imports	Exports
1976	95 X	88 %
. 1977	94 X	86 X
1978	95 X	90 %

## B. Number and tonnage of ships

As at 31 October 1980 Greece's commercial fleet (flying the Greek flag or foreign flags) totalled 4,546 vessels (over 100 grt) with a tonnage of 52,262,428 grt. The majority of these ships, i.e. 3,781 (83%) accounting for a total tonnage of 40,080,413 grt (73%), sailed under the Greek flag (according to statistics from the Greek shipowners federation). The tonnages accounted for by the various types of vessels are as follows (in %):

Type of vessel	% of total number of vessels in Greek fleet	% of vessels sailing under Greek flag	% of total tonnage of Greek fleet	% of total tonnage carried under Greek flag
Tenker s	13.3	80	38.7	61
Freighters	52.2	81	21.3	89
Bulk freighters	20.0	89	30.0	88
Mixed	1.6	.80	7.9	80
Passenger	7.7	94	1.7	75
vessels Miscellaneous	5.2	85	0,4	68

## C. Age of ships

The following table shows that 62.2% of the Greek flag vessels (40.1% of the total tonnage) are more than 15 years old and 14.16% (1.8% of total tonnage) are more than 30 years old.

SIZE AND AGE OF STEAM AND MOTOR-POWERED VESSELS REGISTERED UNDER THE GREEK FLAG AS AT 30 JUNE 1980

TOMMGE CATEGORY		0-4 years		5-9 years	ĺ	<b>10 - 14</b> years		15 - 19 years		20 - 24 years		5 - 29 ears	an	) years d above		TOTAL
CATEGORY	No.	GRT	No.	GRT	No	GRT_	No.	GRT	No	GRT	No.	GRT	No.	GRT	No	GRT
100 - 499	29	7.077	46	11,436	28	7.371	57	16,935	96	12,401	99	38.821	343	99,520	698	213,412
500 - 999	9	6.827	21		2	18,770	20	15.661	50	37,536	43	30.318	67	48.095	234	172.015
1,000 - 1,999	9	14,127	18		39	62,550	47	71,480	2	49,229	41	63,930	70	101.135	266	405.619
2.000 - 3.999	9	26.143	7	119.797	67	210.053	38	118,208	97	311,251	66	267.543	55	163,631	368	1,161,628
4,000 - 5,999	21	113,950	20	98.669	3	153.334	41	207,059	90	440,292	59	298,933	19	94,146	288	1.436.333
6.000 - 6.999	1	6.053	7	44.952	8	52,103	31	200,214	42	272.809	15	98,934	2	13.331	106	626,501
7.000 - 7.999	l'	••		43.242	6	45,223	31	237.108	40	301.647	20	150.865	4	29.734	107	537,809
8.000 - 9.999	28	260,943	40	639,736	92	818.843	95	874,493	167	1.492.953	28	244,988	8	52.766	425	4.414.702
10,000 - 14,999	98	1.202.474	94		126	1.460.490	127	1.489.457	132	1,550,484	22	205,482	2	24,599	601	7.180.460
15.000 - 19.999	35	1.458.745	95		79	1.339,091	45	1,106,655	21	361,521	11	180,969	1 4	60,057	358	6.127.000
20.000 - 29.999	111	244.007	20	400.134	2	1.272.049	14	1.053.226	2	568,760	1	20,417		••	133	3.843,613
30.000 - 39.999	7	236,097	23	791.016	30	1.068,409	53	1.802.530	1	30,580		••		••	114	3,923,452
40.000 - 49.999	1	174,673	16	265.315	3	1.661.009	15	657,536		•• •		••		••	43	2.779.312
50.000 - 59.999		••	1	336,399	12	636,159	4	214,499		••		••		••	22	1.187.057
60,000 - 59,999	1	270,100	1 4	372.296	17	250,197		••	1	••		••		••	14	900.500
70.000 - 79.999	lž	151.222	1 7	518.014	1	72.394		••		. ••					10	741.630
80.000 - 89.999		**	1 1	80.825	į	107.350		••		••		••			13	247.557
90,000 - 99,999		••	<b>.</b> . '	•••	9	873,453		••		••		••		••	1 0	875.455
100.000 - 109.999	1	105,000	14	417.960	6	633,442		••		••		••		••	111	1.136.477
110.000 - 119.999	li	115.440	1 4	487,105	2	226.506		••	1	••					7	807,071
120.000 - 129.999	1 1	123,648	1	128,079	L.	•••		••		••		••	[] ·		1 2	252.727
130.000 - 139.999	l'		<b>.</b> .'					••		••	<u>                                     </u>	••		. ••	L	
140-000 and above	2	327.620		••		••						••		••	[2	327.620
	छो	4.843.346	1200	7.684.365	221	11.128.935	1235	8.665,913	701	5.449.262	2/8	.577.233	572	701,068		2 39.471.70

To reduce the risk of accidents casued by obsolete vessels, the Minstry of the Merchant Marine has enacted a regulation that no ship more than 17 years old may be entered in a Greek shipping register.

## D. Total losses of vessels

The relatively high average age of the Greek commercial fleet is probably one of the factors contributing to the relatively high loss rates due to damage.

Total losses of ships over 500 GRT in	1975	1976	1977	1978	1979	1980	1968 - 198
Greece	25	25	32	74	72	37	388
United Ki <b>ngdom</b>	11	1	3	2	4	4	62
USA	3	3	5	5	3	5	40
Japan	11	12	6	13	10	7	113
Panama	37	52	45	48	52	47	385
Liberia	20	20	16	8	15	12	192

## E. Jobs

The shipping sector is still an important provider of employment for Greece, even though the number of foreign nationals employed on Greek ships is steadily increasing.

Breakdown of the crews of Greek ships as at 31 May 1980:

	<del></del>	<del></del>	
		ships sailing Greek flag	Crews on Greek ships
	Total	Commissioned + non- commissioned officer	flying other
Greek nationals	52.518 = 66 X	23.879 = 95,4 %	7.016 = 57 %
Other nationals	26.941 = 34 %	1.142 = 4,6 %	5.397 = 43 %
Total	79.459	25.021	12.413

## F. Coastal shipping

Under the national maritime code (1973) applicable to coastal shipping, only vessels that are more than 50% Greek-owned may operate as coasters. The code also stipulates that only vessels flying the Greek flag have the right to carry passengers and goods between ports (cabotage), and to perform towing operations, provide assistance, undertake sea rescues etc. within or between Greek territorial waters.

within the coastal shipping sector the Greek Government attaches particular importance to the services to the numerous islands, which are essential for their economic and social life, health care and tourism. However, operators can no longer justify running these often little-used lines on purely economic grounds, and so the state has to subsidize them. Despite all the attempts at rationalization, the volume of subsidy required is likely to increase substantially; the Greek Government has budgeted a total of nearly Drs 13 million for the five-year development plan.

## Air traffic in, from and to Greece

## A. Importance to the economy

Aircraft arrivals and departures in Greece more than doubled between 1968 and 1978, and the number of air passengers increased during the same period by 330%. This dynamic development is primarily due to tourism. The volume of freight and mail carried also increased, although its share is still not very significant.

Volume of traffic on Olympic Airways in 1965, 1970, 1975, 1976, 1977 and 1978

					D	omė	stic	fLi	ght	s			International flights										
Y E A R	kms flo		Pa	ssen	gers	ki	Lome	_	in		Mail in tkm	(1	.oun		o of			ssenç Lamet	_	•	ight	Mai in tkm	
1965	4	258		471	436		155	734	2	007	143	7	554		300	567		385	548	6	034	1	477
1970	٥	878	1	016	376		303	198	2	212	235	22	877		598	339	1	796	199	29	874	3	140
1975	8	183	2	009	221		629	667	3	811	254	26	883		821	206	2	796	128	29	811	3	729
1976	9	433	2	381	706		741	484	4	664	298	34	112	1	159	331	3	881	388	49	599	4	817
1977	9	525	2	745	647		852	211	4	878	306	29	708	1	156	288	3	507	290	49	678	5	086
1978	10	995	3	332	950	1	037	664	5	895	352	30	433	1	338	498	3	591	222	56	480	5	171

## B. Airports in Greece

At present Greece has over 15 airports handling international traffic and a further 18 which handle domestic flights only. Because of the large volume of traffic at Athens Airport, a start was made on the construction of a new airport (Spata) for Attica. For various reasons, however, work on this project is at a standstill and the Greek Government is now trying to improve conditions in the existing Athens Airport.

Airport	Share of traffic (1978)	Èxisting bottlenecks	Investment provided for in the 5-year plan
•	\in %'		(in Drs mill
1. Athens 2. Thessaloniki 3. Heraklion 4. Korfu 5. Alexandropoulis 6. Mytilene 7. Kos 8. Limnos 9. Kania 10. Cephalonia	62,4 7,0 5,4 3,8	Parking aprons + customs clearance buildings Landing strips, parking aprons + customs clearance	923 602,8 634,8 2 875,8 40,8 798 155 715 470 334
11. Zanti 50 12. Andravida 13. Kalamata 14. Rhodos 515. Samos	6,9	Landing strips, parking + customs clearance Parking aprons + customs clearance buildings Parking aprons + customs clearance buildings Parking aprons + customs clearance buildings Total	463,8 300 476 106
1. Joannina 2. Chrisopoulis-Kavala 3. Chios 4. Mykonos 5. Skiathos Agrinion 7. Kojani 8. Kastoria 9. Kavpathos 10. Santorin 11. Kythera 12. Milos 13. Skyros 14. Larissa 15. Mea Achialos 16. Preveza 17. Sparta		Parking aprons and customs clearance Landing strip, parking and customs clearance Landing strip, parking and customs clearance  Landing strips, parking and customs clearance  Landing strips, parking and customs clearance	8 895 117,8 
18. Marathon		- Total	100

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# <u>SUMMARY OF TRANSPORT INFRASTRUCTURE PROJECTS</u> (excluding telecommunications)

for which assistance was granted from the European Regional Development Fund in 1981 in Greece 1

I - 1981

Region	Project No.	Project description	more 10 m	than ECU	less 1	
Multi-regional	80/08/03/002	Modernization/improvement: railway line	x			
**	81/08/03/002 /	New construction/modernization/improvement: road infrastructure	X			
**	81/08/03/004	New construction: road works	X			
· ·	81/08/03/008	Modernization: main railway line	X			
Anatolikis Stereas Ke Nison	81/08/03/001	New construction: road works (Kikladon)	x			
11	80/08/04/003	New construction/modernization/improvement: port works (mole and crane) (Evias)				x
H	**	New construction/modernization/improvement: airport infrastructure (Evias)				x
11	81/08/04/001	New construction/extension: road works Fthiotidos, Fokidos)				X
**	**	New construction/extension: road works (Viotias)				X
••	••	New construction/extension: road works (Evias)				X
••	••	New construction/extension: road works (Evias)				X
H	11	New construction/extension: road works (Evritanias)				x
11	81/08/04/004	New construction/improvement: port works (three ports) (Kikladon)				X
•	**	New construction/improvement: airport infra- structure (Kikladon)				X
••	81/08/04/026	Extension: roadworks (Evritanias)				X

<sup>1</sup> Source: Communications from the Commission

OJ No. C 246 of 20.9.1982 OJ No. C 347 of 31.12.1982

Region	Project No.	Project description	more than 10 m ECU	less than 10 m ECU
Kentrikis Ke D	itikis Makedonias			
	80/08/04/011	New construction: port works (mole) (Chalkidikis	)	X
n	81/08/04/006	New construction/modernization/improvement: road works (Chalkidikis)		x
•	n	New construction/modernization/improvement: road works (Kilkis)		x
•	11	New construction/modernization/improvement: road works (Pierias and Thessalonikis)		x
н		New construction/modernization/improvement: road works (Imathias)		×
n	"	New construction/modernization/improvement: road works (Pellis)		x
	11	New construction/modernization/improvement: road works (Florinis)		x
**	11	New construction/modernization/improvement: road works (Kastorias)		x
***	•	New construction/modernization/improvement: road works (Kozanis)		x
H .	11	New construction/modernization/improvement: road works (Grevenon)		x
n	**	New construction/modernization/improvement: road works (various)		x
**	н	New construction/modernization/improvement: road works (Pellis and Florinas)		x
**	81/08/03/010	Modernization/improvement: railway line Thessaloniki-Promachon (various locations)	X	
Peloponnisou K	e Ditikis Stereas El	lados		
	81/08/03/003	New construction/modernization/improvement: road works (Achaias and Ilias)	X	
•	80/08/04/008	New construction/extension: port works (pier and quays) (Achaias)		x
**	11	New construction/improvement: port works (moles and quay walls) (Kefallinias)		x
••	н	Extension/improvement: port works (mole) (Messinias)		x
••	14	Extension/improvement: port works (mole and quay wall) (Messinias)		x
**	н	New construction/extension/improvement: airport infrastructure (building) (Zakinthou)		x

Region	Project No.	Project description	more than 10 m EQU	less than
Peloponnisou Ke	Ditikis Stereas Ella	ndos		
(continued)	80/08/04/008	Extension/improvement: airport infrastructure (landing strip, widening and levelling) (Kefallinias)		x
1	81/08/04/009	New construction/extension/modernization/ improvement: road works (Ilias)		x
1	"	New construction/extension/modernization/ improvement: road works (Achaias)		x
i i	11	New construction/extension/modernization/ improvement: road works (Korinthias and Argolidos)		x
••	•	New construction/extension/modernization/ improvement: road works (Arkadias)		x
••	н	New construction/extension/modernization/ improvement: road works (Lakonias)		X
•	H	New construction/extension/modernization/ improvement: road works (Messinias)		x
		New construction/extension/modernization/ improvement: road works (Zakinthou and Kefallinias)		x
<b></b>	11	Modernization/improvement: road works (Etoloakarnanias)		x
	n .	Modernization/improvement: road works (Koringhias and Achaias)		x
11	81/08/04/030	Modernization/improvement: port works (Argolida) Extension: port works (Achaias)		x
•	81/08/04/031	Modernization/improvement: roads (Argolida)		X
	11	Modernization/improvement: roads (Arkadia)		x
11	**	Modernization/improvement: roads (Achaia)		x
•	**	New construction: roads (Ilia)		x
•	••	New construction: roads and bridges (Korinthia	1)	X
t	11	New construction: roads (Lakonia)		X
1	**	New construction: roads (Messinia)		X
1	**	New construction: roads (Kefallinia)		X
•	**	Modernization/improvement: roads (Zakinthos)		X
ti .	11	Modernization/improvement: roads (Etoloakarnar	nia)	X

Region	Project No.	Project description	more than 10 m ECU	less than 10 m ECU
Thessalias	80/08/04/002	New construction: port works (track) (Magnisias)		x
	80/08/04/012	Extension/modernization: infrastructure works in two airports (lightbuoy installation and road) (Magnisias)	i e	<b>. X</b>
	**	New construction/extension: port works (mooring pier, quay wall and road) (Magnisias)		x
	H	New construction/extension: port works (mooring pier, quay wall and sea-shore road) (Magnisias)		x
ı	81/08/04/011	New construction/improvement: road works (Larisis and Karditsis)		x
	H	New construction/improvement: road works (Larisis and Magnisias)		x
	"	New construction/improvement: road works (Trikalon and Karditsis)		X
	n	New construction/improvement: road works (various)		x
	81/08/04/013	New construction: port works (track) (Magnisias)		x
	81/08/04/032	New construction: port works (Magnisia)		x
	81/08/04/033	New construction: roads and bridge (Larissa)		x
	**	New construction: roads (Magnisia)		X
	**	New construction: roads (Trikala)		X
	**	New construction: roads (Karditsa)		X
natolikis Maked	donias			
	80/08/04/010	New construction/extension: port works (mole and quay wall) (Serron)		x
	II	Extension/improvement: infrastructure works in two airports (mostly landing strips, buildings, lightbuoy) (Kavalas)		x
	81/08/04/015	New construction/improvement: road works (various)		x
		New construction/improvement: road works (various)		x
	81/08/04/034	Modernization/improvement: roads (Kavala)		x
		New construction: roads (Drama)		X
		Modernization/improvement: roads (Serres)		X

Region	Project No.	Project description	more than 10 m ECU	less than 10 m ECU
Kritis	80/08/04/007	New construction/modernization: port works (pier, deepening of the basin and sea-shore quays) (Chanion)		x
II .	11	New construction/modernization: port works (pier, deepening of the basin and sea-shore quays) (Rethimnis)		x
ıı	***	New construction/modernization: port works (piers, quay walls, crane and rails) (Irakliou)		x
11	ti .	New construction/extension/modernization airport infrastructure (fire-service station, custom house and commercial center) (Irakliou)	n:	x
11	u	New construction: airport infrastructure (radio-beacon and telecommunication system VHF-UHF equipment) (Chanion)	•	x
•	***	New construction/extension/modernization radio-beacon and telecommunication system VHF-UHF equipment in the port (Lasithiou)	າ:	x
***	81/08/04/036	Modernization/improvement: repairing of damage protection of main mole (Lasithi	)	x
Ipirou	80/08/04/009	Extension/improvement: infrastructure works in three airports (mostly landing strips and security systems) (various)		x
"	"	New construction: infrastructure works seven fishing and tourist ports (Kerkiras and Levkados)	in	x
•	81/08/04/020	New construction/improvement: road works (Ioanninon)	5	X
"	"	New construction/extension: road works (Thesprotias)		X
14	**	New construction/extension: road works (Prevezis)		X
11	**	New construction/extension/improvement: road works (Artis)		X
H	II	New construction/extension/improvement: road works (Levkados)		X
	"	New construction/extension/improvement: road works (Kerkiras)		X

Region	Project No.	Project description	more than 10 m ECU	less than 10 m ECU
pirou (continued)	81/08/04/038	New construction: roads (Arta)		X
	**	Modernization/improvement: roads	(Kerkira)	X
	••	New construction: bridges (Ioanni	na)	X
	11	New construction: roads (Thesprot	ia)	X
	••	New construction: roads (Levkada)		X
	•	New construction: roads (Preveza)		x
	81/08/04/039	Modernization/improvement: airpor structure (Kerkira)	t infr <del>a</del>	X
	11	Modernization/improvement: port w (Preveza)	orks	
	81/08/04/022	New construction/improvement: ros works (Evrou)	d	X
	11	New construction/improvement: roaworks (Rodopis)	d	X
	••	New construction/improvement: ros works (Evrou)	d	X
	••	New construction/improvement: ros works (Rodopis)	rd-	X
	**	New construction/improvement: ros works (Rodopis)	rd	X
	**	New construction/improvement: roa works (Xanthis)	d	<b>X</b>
hrakis	81/08/04/023	New construction/extension: airpoint infrastructure (extension of the airstrip and airfield lighting)	rt	
		(Evrou)		X
	••	New construction/extension: port (Evrou and Rodopis)	NOTKS	x
	81/08/04/040	New construction: airport (Evros)		
	••	New construction: port (Xanthi)		X
	81/08/04/041	Modernization/improvement: roads (Evros)		X
	"	New construction:roads (Rodopi)		X
	**	New construction: roads (Xanthi)		X

Region	Project No.	Project description	more than 10 m EQU	less 10 m	than ECU
ison <b>Anatoliko</b> u Eç	geou				
	81/08/03/007	New construction/modernization/ improvement: road works (various)	X		
	80/08/04/006	New construction/extension: water sup (various)	ply		X
	n	New construction/extension: sewerage networks in 19 settlements (various)			x
	11	New construction/improvement: airport infrastructure works (Lesvou)	t .		x
	II	New construction/improvement: airport infrastructure works (Lesvou)	ŧ		x
	11	New construction/improvement: airport infrastructure works (Chiou)	t `		x
	"	New construction/extension/improvement infrastructure works in the airport (building, road and strip) (Samou)	nt:		x
	**	New construction/improvement: infra structure works in airports (building strips and lightbuoy) (various)	s,		X
	"	New construction: supply of equipment airports (various)	ts for		x
	**	Extension: port works (Lesvou and Dodekanisou)	,		x
	***	Extension: port works (docks) (Chiou)	•		X
		New construction/extension: port worl (docks) (Samou)	<b>ks</b>		X
		New construction/extension: port worl (docks) (Dodekanisou)	<b>(S</b>		x
	81/08/04/043	New construction: roads (Lesvos)			x
	••	Modernization/improvement: roads (Ch	ios)		X
	"	Modernization/improvement: roads (Sar			X
	**	Modernization/improvement: roads (Doo			X

## Number of projects assisted

Roadworks projects: 80
Railway projects: 3
Port projects: 28
Airport projects: 18

Total number of transport infrastructure projects assisted in 1981: 129

## SUMMARY OF TRANSPORT INFRASTRUCTURE PROJECTS

(excluding telecommunications)

for which assistance was granted from the European Regional Development Fund in Greece in 1982<sup>1</sup>

II - <u>1982</u>

Region	Project No.	Project description	more than 10 m ECU	less than 10 m EQU
Anatolikis Ster	eas Ke Nison			
	81/08/04/001	New construction/extension: road works (Fthiotidos and Fokidos)		x
••	**	New construction/extension: road works (Viotias)		x
••	tt	New construction/extension: road works (Evias)		X
***	**	New construction/extension: road works (various)		X
**	"	New construction/extension: road works (Evritanias)		X
11	81/08/04/004	New construction/extension: port works (Kikladon)		x
11	11.	New construction/modernization/improvement: airport infrastructure (Kikladon)		x
	81/08/04/026	Modernization/improvement: asphalt pavement of the road network (Viotias)		x
••	••	New construction/modernization/improvement: road works (Evias)		X
**	"	New construction/modernization/improvement: road works (Evritanias)		, <b>X</b>
••	••	New construction/modernization/improvement: road works (Fthiotidos)		~ <b>X</b>
11	II .	New construction/modernization/improvement: road works (Fokidos)		X

Source : Communications from the Commission:

OJ No. C 85 of 28.3.1983 OJ No. C 174 of 1.7.1983 OJ No. C 198 of 25.7.1983

Region	Project No.	Project description	more than 10 m ECU	less tha 10 m ECU
ntrikis Ke Di	itikis Makedoni <b>as</b>			
	81/08/04/006	New construction/extension: road works (Chalkidikis)		X
	66	New construction/extension: road works (Kilkis)		X
	• ••	New construction/extension: road works (Pierias and Thessalonikis)		X
	**	New construction/extension: road works (Imathias)		X
	ìı	New construction/extension: road works (Pellis)		· <b>x</b>
	11	New construction/extension: road works (Florinis)		<b>X</b>
	••	New construction/extension: road works (Kastorias)		X
	n	New construction/extension: road works Kozanis)		X
	н	New construction/extension: road works (Grevenon)		X
	u .	New construction/extension: road works (various)		x
		New construction/extension: road works (Pellis and Florinis)		x
	81/08/04/028	New construction: road works (Grevenon)		x
	**	New construction: road works (Kozanis)		X
	<b>81</b>	New construction: road works (Kastorias)		x
	**	New construction: road works (Florinis)		X
	11	New construction: road works (Pierias)		X
	**	New construction: road works (Imathias)		X
	11	New construction: road works (Pellis)		X
	**	New construction: road works (Kilkis)		X
	**	New construction: road works (Thessalonik	is)	X
	11	New construction: road works (Chalkidikis)	•	x
	81/08/04/029	Extension: port works (Thessalonikis)		x
	•	Modernization/improvement: airport infra- structure (Kastorias)		X
	••	Modernization/improvement: airport infra- structure(Kozanis)		X

Region	Project No.	Project description	ore than O m ECU	less than 10 m ECU
elapannisau Ke Di	tikis Stereas Ellados			
	80/08/04/008	New construction/extension: port works (Achaias)		X
	11	New construction/modernization/improvement: post works (Kefallinias)		X
	11	Extension/modernization/improvement: port works (Messinias)		X
•	"	New construction: port works (Messinias)		<b>X</b> .
•	н	New construction/extension: airport infrastructure (Zakinthou)		X
•	11	Modernization/improvement: airport infrastructure (Kefallinias)		X
	81/08/04/009	New construction/extension: road works (Ilias)		. <b>X</b>
,	11	New construction/extension: road works (Achaias)		X
	ri .	New construction/modernization/improvement: road works (Korinthias)		x
•	11	New construction/extension: road works (Korinthias and Argolidos)		X
•	**	New construction/extension: road works (Arkadias)		X
•	н	New construction/extension: road works (Lakonias)		x
•	н	New construction/extension: road works (Messinias)		x
•	**	New construction/extension: road works (Zakinthou and Kefallinias)		x
•		Modernization/improvement: road works (Etoloakarnanias)		X
,	11	Modernization/improvement: road works (Korinthias and Achaias)		x
Thessalias	81/08/04/032	Modernization/improvement: airport infrastructure (Magnisias)		x
•	82/08/04/025	New construction/modernization/improvement: roadworks (Larisis)		X
1	**	New construction/modernization/improvement: roadworks (Trikalon)		X
1	11	New construction/modernization/improvement: roadworks (Karditsis)		x
•	11	New construction/modernization/improvement: roadworks (Magnisias)		X
•	82/08/04/026	New construction: port works (Magnisias)		X
		- 52 <b>-</b>	PE 87.	.650/Ann.V/fi

Region	Project No.	Droiget deceription	re than m ECU	less than 10 m ECU
Anatolikis Makedonias	81/08/04/035	New construction port works - reconstruction of damage on windward dock (Kavalas)		х
••	82/08/03/004	New construction: Strymon-Peramos road (Kavalas)	x	
••	82/08/04/017	New construction/extension: port works (Kavalas)		x
Kritis	80/08/04/007	New construction/modernization/improvement: port works (Chanion)		X
	**	New construction/modernization/improvement: port works (Rethimnis)		x
**	H	New construction/modernization/improvement: port works (Irakliou)		x
u	u	Extension: airport infrastructure (Irakliou)		x
,,	81/08/04/036	Modernization/improvement: airport infra- structure (Chanion)		X
H	н	Extension: airport infrastructure (Irakliou)		X
n	81/08/04/037	New construction/modernization/improvement: road works (Chanion)		x
•	ff.	New construction: road works (Rethimnis)		X
11	H	New construction: road works (Irakliou)		X
"	II .	Modernization/improvement: road works (Lasithiou)		x
n	"	Modernization/improvement: road works (Rethimnis)		X
n	82/08/04/018	New construction: port works (Rethimnis)		x
n	11	Extension: port works (Chanion)		X
n	**	New construction: port works (Irakliou)		X
II .	**	New construction: port works (Lasithiou)		x
Ipirou	82/08/04/012	Modernization/improvement: roadworks (Thesprotias)		x
H	**	Modernization/improvement: roadworks (Artis)		X
ti .	**	Modernization/improvement: roadworks (Kerkiras	<b>s</b> )	X
H	11	New construction/modernization/improvement: roadworks (Thesprotias)		x
н	"	New construction/modernization/improvement: roadworks (Levkados)		x
	**	New construction: roadworks (Prevezis)		x

Region	Project No.	Project description	more than 10 m ECU	less th 10 m EC	
hrakis	81/08/04/022	New construction/extension: road works (Evrou)		X	MILES PROPERTY AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PE
•	n	New construction/extension: road works (Rodopis)		X	
•	**	New construction/extension: airport infrastructure (Xanthis)		х	
,	81/08/04/023	New construction/extension: airport infrastructure (Evrou)		x	
•	H	New construction/extension: port works (Evrou and Rodopis)		x	
1	82/08 <b>/0</b> 4/024	New construction/modernization/ improvement: roadworks (Xanthis)		x	,
•	"	New construction/modernization/ improvement: roadworks (Evrou)		x	
•	"	New construction/modernization/ improvement: roadworks (Rodopis)		x	
lison Anatolikou Eg	geou				
•	81/08/04/042	New construction: infrastructure for two airports (Lesvou)		x	
•	**	Extension: airport infrastructure (Chiou	)	X	ı
•	11	Extension: airport infrastructure (Samou	)	x	
•	**	Extension: infrastructure for several airports (various)		x	
•	82/08/04/015	New construction: roadworks (Lesvou)		x	
1	и	New construction/modernization/ improvement: roadworks (Samou)		x	ı •
,	II	New construction/modernization/ improvement: roadworks (Dodekannisou)		x	,
•	11	New construction/modernization/ improvement: roadworks (Chiou)		х	

## Number of projects assisted:

Roadworks projects:

67

Railway projects:

-

Port projects:

17

Airport projects:

14

Total number of transport infrastructure projects assisted in 1982: 98

## EIB FINANCING IN GREECE SINCE ACCESSION

Lending in Greece by the European Investment Bank now stands at well over 1.1 billion ECUs<sup>10</sup>, reflecting the swift expansion in operations — amounting to close on 780 million ECUs (Dr. 52 bn.) — that has occurred since the country joined the European Community in 1981.

The EIB, which mounted its first financing operations

The financing activity has appreciable effects on the Greek economy. The total volume of fixed-asset investment placed with supporting finance from the Bank since 1981 is estimated at 2.2 billion ECUs (Dr. 153 bn.), while the number of jobs created or made secure is put at over 12 000. What lends particular impact to these operations is the fact that they are concentrated in the less-developed regions and in priority sectors. In other words, they go some way towards answering

Greece's need to modify its economic structure in order to ease its integration into the fabric of the Community: proof positive of EEC solidarity.

Until 1981, EIB financing in Greece was subject — as it normally is for operations anywhere outside the European Community — to a ceiling and to a specific period of time: under the two successive Protocols, provision was made for the Bank to advance some 350 million ECUs<sup>11</sup> for investment in industry, agriculture,

in Greece in 1963 under the Financial Protocols annexed to the Greece — EEC Association Agreement, has since 1981 channelled investment credit into a great many projects in industry and agriculture, the energy sector and infrastructural development, as well as the financing of reconstruction works in areas devastated by the earthquakes in 1981.

the energy sector and basic infrastructure.

m as at 30 September 1983: that total would now equate to about Dr 85 billion. The Dr. amounts given in this article are based on the conversion rates obtaining at the dates of contract signature. The aggregate amount for the two Protocols would come to around Dr 27 billion.

<sup>&</sup>lt;sup>25</sup> for further particulars on financing in Greece before accession, see EIB-Information No 21 (May 1980) and the book, "European Investment Bank — 1958-1983", available free on request from the Bank's Information and Public Relations Division, L-2950 Luxembourd

Source: EIB Information, No. 36 October 1983

Those lending ceilings ceased to apply when Greece became a Member State. The EIB advanced 160 million ECUs in Greece in 1981 and almost 460 million in 1982. Accounting for only about 3.6% of the overall population of the Community. Greece in fact attracted 10.8% of all Bank lending from own resources and those of the New Community Instrument in the Community in 1982, placing it, in terms of lending per capita, second only to Ireland. This high rate of lending continues in 1983, and to judge from financing already provided and the volume of applications under appraisal, much the same total can be expected, if not an increase in activity. At the time of going to press, the Bank is expecting, at its Board meeting in Athens at the beginning of October, to sign contracts totalling Dr. 11.4 billion (143.6m ECUs).

The surge in lending since 1981 owes a great deal to the close affinities between the priorities that must be pursued in the Greek economy and the objectives set before the EIB for accomplishing its appointed task under the Treaty of Rome, most especially in the area of regional development and reducing the Community's reliance on imported oil. This has been happening as the implementation of New Community Instrument financing has been getting into stride (NCI - see p. 10).

. .

In endeavouring to promote the balanced development of the Community — its stated aim in the Treaty of Rome - the Bank gives primacy to providing finance for investment fostering regional development, which in practice means projects in regions that are eligible for government aid under this heading EIB financing tends accordingly to beconcentrated in Member Countries where regions are lagging farthest behind in development and/or the economy is being held back by difficulties of industrial conversion. Greece is very much a case in point: its per capita Gross Domestic Product in 1980, adjusted to give equivalence of purchasing power, came to 57% of the Community average, placing it behind Ireland, where the figure was 62%. The entire country, with the sole exceptions of Athens and the Piraeus and Thessaloniki, is eligible to a greater or lesser extent for regional development aid. Low though it may be, moreover, the blanket GDP figure masks wide geographical gaps. Apart from the difficult geography of the country. there remains the still prominent economic role of agriculture, which in 1980 continued to account for 30% of the workforce, with many farm workers under-employed on smallholdings showing productivity levels far below the average for the EEC. Almost all the EIB's loans for investment financing in Greece have had a regional impact.

This category of financing thus embraces projects in industry, especially small and medium-sized enterprises, agricultural development (irrigation and on-farm investment) and transport and telecommunications infrastructure, vital elements in a country like Greece, four-fifths mountainous and including a thousand or so islands, 170 of them populated. Communications are at times difficult and expensive, not constituting a drag economic development but also adding impetus to rural depopulation This lends special importance to the improvement of the road system, railways and telecommunications.

The Bank has been financing investment designed to create the right sort of conditions for drawing new forms of activity into regions that have little industry to date and at the same time help the authorities in their efforts to reduce the concentration of economic activity around Athens/Piraeus and Thessaloniki, which account for 40% of the country's population, over 55% of production and two thirds of service activities. The aim is to attract entrepreneurs into other regions, and especially towards such selected growth centres as Patras, Volos, Larissa, Heraklion, Kavala, Kozani, Ptolemais and loannina.

A second investment priority is eneray, including the tapping of indigenous resources, energy savings and diversifying imports by substituting coal for oil, e.g. in industry. This is an area in which much remains for Greece to do: in 1982, it relied on imported oil for about 65% of its energy consumption, whereas the Community has set itself a target of reducing the proportion of oil in the Ten's total energy consumption to 40% by 1990 Greece has ample lignite resources at its disposal, sites suitable for hydroelectric schemes and, indeed, oil and gas deposits. At the same time, energy saving is being promoted.

Environmental protection also figures high on the priority list. Greece is not only a leading tourist

country but also, as a Member of the European Economic Community, a signatory of the Barcelona Convention on the protection of the Mediterranean, and matters environmental are of considerable concern. The recent spate of urban development and the mushrooming populations of Athens-Piraeus and Thessaloniki have for some years now been creating pollution problems that require counter-measures both costly and comprehensive.

The modernisation and conversion of industry is another area to which Bank financing is addressed, and one to which critical importance attaches, given the ever-sharper competition on world markets and the need to rise to technological challenges. This is a need that faces the Community at large, but which has its own complexion in Greece, where there are a great many smaller, old-established firms, often illequipped and showing low productivity. The Bank has been trying to use its financing to hone the competitiveness of business undertakings, including small and mediumsized enterprises, failing which they will not be in a position to make the most of the common market.

#### Long-term capital requirements

Greece actually enjoyed quite brisk economic growth up to the mid-1970s. 6 25% per annum on average between 1965 and 1975, compared with 3.75% in the other OECD countries of Europe. Then came the two oil shocks and the world recession, and growth slowed accordingly, to 3.5% (compared with 2.75% in the European OECD countries) between 1975 and 1980. There was then stagnation in 1982 and just the inkling of a recovery beginning to show through this year. Hardly conducive either to investment is the persistently high rate of inflation Greece has been suffering since the first oil shock, and the input of capital in the private industrial sector in recent years has been tending to decrease.

Exports — farm products apart, largely raw materials and light manufactures (the latter with an increasingy modern technological content) — have traditionally failed to balance out imports, but the regular shortfall on the balance of trade has largely been made good by gains on invisibles (earnings from shipping, repatriated incomes, tourism etc.).

In recent years also, the balance of payments has run into difficulties,

with export earnings rising more slowly and a consequent deterioration in the trade balance. The situation has been exacerbated by the levelling-off of earnings from tourism since 1979, the effects of the world recession and the diminished profitability of the shipping sector, as well as the ebbing tide of funds repatriated by Greeks abroad, fewer of whom are now leaving the country, and more returning. There has also been a shrinkage in the availability of capital within the country not unconnected with the narrowness of the national capital market - which has been inhibiting operations by Greece's long-term finance institutions, often compelling companies to go for shorter-term credit, which is not the best medium for industrial investment, and even less for infrastructure.

Outside financing has thus become essential, and that provided by the EIB lends itself particularly well to Greece's needs, offering as it does long-term facilities at fixed rates of interest very close to the excellent terms the Bank commands on the capital markets, thanks to its prime credit rating. What is more, the funds in question are paid out in foreign currency, which is what the Greek economy lacks. EIB lending thus makes a very real contribution to the national investment drive in Greece, accounting in 1981-82 for almost 4.3% of Gross Fixed Capital Formation.

As a measure of the scale of EIB financing in Greece, more than half of the 1 229 million ECUs of Community funds advanced there for structural improvements in 1981-82, more than half (i.e. 618m ECUs of long-term loans) was advanced by the Bank: 493.1 million from its own resources and 124.9 million from those of the New Community Instrument. The rest of the credit came in the form of 11 million ECUs of loans from the European Coal and Steel Community (ECSC) and 600m ECUs of grants from the Community funds (European Regional Development Fund, European Agricultural Guidance and Guarantee Fund and the European Social Fund) and aid for pilot projects in the energy field.

### The sectoral pattern of lending

Some 33% of the EIB financing provided in Greece from beginning 1981 up to 30 September 1983 (255m ECUs) has gone towards communications infrastructure; over 27% (212.8m ECUs) has been accounted for by industry, agriculture and tour-

ism, about 20% by energy and over 19% by irrigation, water treatment and other kinds of infrastructure.

Telephone and road improvements head the list, in order of importance: 186.5 million ECUs out of the 255 million total went to the Greek telecommunications authority - OTE for channelling into the improvement and extension of the telephone and telex network throughout the country. An estimated 320 000 subscribers have been or are to be connected as a result, especially in the less-developed, most remote regions, in the islands and mountains. In some cases, the places in question may already have been connected with the system, but others are so remote that this will put them in touch for the first time, breaking through the isolation from the rest of the country with which they have had to contend. A total of 53 million has been used for part-financing the improvement and realignment of the Thessaloniki — Serres — Bulgarian border road and the Patras - Olympia road, in the latter case to give access to the local industrial estate and nearby archaeological sites.

Next in order comes energy, with loans totalling 160.8 million ECUs. including 74 million towards construction of the hydroelectric power stations at Pigai (Epirus) and Stratos (Central Greece, north of Agrinion), where output should amount to the equivalent of 185 000 tonnes of oil per annum by 1986. A further 49.8 million have been advanced for the tapping of a lignite deposit at Amynteon, North of Ptolemais in Macedonia, for open-cast working, plus 30.4 million towards the construction nearby of a 600 MW power station to exploit this source of fuel. By mid-

1986, this scheme should be saving the annual equivalent of 800 000 tonnes of imported oil. The installation of two turbo-alternators at a hydrocarbons refinery near Corinth, to operate on the combined heat and power principle, fired by gas previously flared off, accounts for a further 6.6 million. That project should achieve energy savings equivalent to about 38 500 tonnes of oil per annum, in addition to which it will reduce considerably the adverse environmental effects of the plant in question at a location close to a centre of world archaeological inte-

In December 1981, the Council of the European Communities decided to provide special aid for reconstruction work in disaster areas, i.e. the zones affected by earthquakes in February and March of that year. The sum of 80m ECUs was accordingly lent from the resources of the New Community Instrument, and used for repairs to 42 sections of roads, the reconstruction or repair of 800 educational buildings, 27 other buildings and 7 railway bridges, and the erection of 550 prefabricated buildings. To stress the fact that this financing was in the nature of aid, a 3% interest subsidy was granted, charged to the Community budget.

A further 31.7 million went towards the development or enlargement of industrial estates at Larissa, Lamia, Volos, Ioannina, Kilkis, Serres, Kavala, Drama, Komotini, Patras and Heraklion, to help the Greek Government in its effort to promote the establishment of new economic activity in these development centres, or to get existing firms to move there.

Greece became a Member of the EIB at the same time as joining the EEC, and accordingly contributes to its capital and plays its part in Bank decision-making and administration.

The capital, which is subscribed by the 10 EEC Member States and amounts to 14.4 billion ECUs, although only about 10.2% is actually paid in or awaiting payment, has a Greek contribution of 225.0 million ECUs (1.56%), of which 22.9 million has actually been paid in or is direction.

On the **Board of Governors** there sits one minister from each Member State, the Governor for Greece being Mr. Gerassimos ARSENIS, the Minister for National Economy.

On the **Board of Directors, Mr.** Stavros THOMADAKIS, a Special Adviser to the Minister for National Economy, sits as full Director.

On the Audit Committee, one of the three sitting members is Mr. Constantin THANOPOULOS, Deputy Manager at the Bank of Greece; he occupies the chair until the next Annual Meeting of the Board of Governors.

The Bank's staff, which consists of nationals of the EEC Countries, has a growing number of Greek members.

Environmental protection has attracted loans from the EIB for 23.6 million to date. These have gone towards sewerage and sewage treatment schemes in loannina, Larissa, Kastoria and Ptolemais and the construction of the Metamorphosis sewage treatment plant North of Athens, which should achieve an 80 to 90% reduction in the level of pollution created in the Saronic Gulf by effluent from a population of about 1.2 million. The last heading is irrigation works, 15.2 million ECUs having been advanced for schemes in Eastern Macedonia and Epirus, serving some 17 500 hectares, and for the improvement and upkeep of other, existing installations.

### **Manufacturing industry**

In the field of productive enterprise, EIB financing between the beginning of 1981 and 30 September 1983 came to 212.8 million ECUs. The leading recipient among the major industries has been the cement sector, in which Greece is Europe's second largest exporter after Spain. The total advanced was 40.2 million. towards: the conversion to coal firing of two cementworks in Central Greece and at Voios; the phased transfer of production from a plant in the Piraeus to Milaki in Euboea (involving also a switch to coal firing), and the construction of a coal terminal at Milaki to serve both that plant and the one at Volos. The concern to reduce oil dependence clearly shapes each of these modernisation projects, and the combined impact of going over to coal and making more rational use of energy should yield savings equivalent to over 500 000 tonnes of oil per annum. The works in question also included anti-pollutant features and installations. This aspect was also a consideration in the decision to finance the Piraeus --- Milaki transfer: that move not only answers the need to seek a better geographical spread of industrial activity, but will also play its part in reducing atmospheric pollution in the Athens — Piraeus area

The EIB also advanced 15 million ECUs towards the modernisation of alumina and aluminium production units at the St. Nikolaos plant on the Gulf of Corinth, uprating the plant's alumina capacity by 100 000 tonnes per annum. This is in fact a productivity-cum-energy-saving project: it will save the equivalent of some 34 000 tonnes of oil per annum.

Most of the finance for industry, however, has been finding its way into small and medium scale ventures, which are of particular importance in Greece: these attracted 157.5 million ECUs. Well before accession, the EIB had established cooperation with the Hellenic Industrial Development Bank (ETBA), the National Investment Bank for Industrial Development (NIBID) and, on the farming and agro-industrial side, with the Agricultural Bank of Greece (ABG), and since Greece joined the Community, the Investment Bank and the National Bank of Greece have been added to their number. All of these have received global loans (lines of credit), on which they draw to make sub-loans in support of small and mediumscale ventures that accord with the provisions of the Bank's Statute and with its lending criteria. Most such ventures are the work of small or medium-sized industrial enterprises, although applications are also accepted from the tourist and agricultural sectors (in the latter case, for irrigation schemes and on-farm investment). These lines of credit serve to place investment capital throughout Greece, although in the Athens and Thessaloniki conurbations the funds have to date for the most part been channelled into the modernisation of older-established industrial activities.

Of the 157.5 million ECUs in question, 103.3 million have been deployed by industry and the tourist sector, including 6.8 million for smallerscale investment in the more rational use of energy. The ABG on-lent 10.2 million towards investment in raising farm productivity through mechanisation, collective irrigation and on-farm capital improvements. There still remains an amount of 44 million, allocation of which has yet to be completed: the global loans in question are of recent date, and a certain amount of time is evidently needed for the process of drawdown.

At 31 August 1983, the total number of smaller industrial ventures financed from the global loans stood at 139: 27.2 million bad gone to the food industry, 12.5 million to metal production and semi-processing, 10.7 million to metalworking and mechanical engineering, 8 million to textiles and leather and 6.1 million to construction materials, the rest of the funds having been placed in the glass, ceramics and woodworking industries, chemicals, mining and quarrying, rubber and plastics, transport equipment, electrical engineering, electronics and other activities. There were nine investments mounted by small or medium-sized enterprises to reduce or rationalise energy use: all received allocations from a NIBIO global loan.

For the promotion of tourist activity, always a key sector in Greece, the total loaned came to 11.8 million ECUs. There were 15 ventures so financed: of particular interest, perhaps, was the archaeological museum on the Island of Milos in the Cyclades. In December 1982, this received a 163 000 ECU advance under an ETBA global loan, an operation very much in accord with the Community's cultural action programme, and in particular the campaign to preserve the architectural heritage. It was the Bank's first credit for such an investment: the museum will influence the development of tourism in Milos, something on which the island critically depends and which is one of the stated aims of Greece's regional development programme. The Milos loan also attracted a 5% interest subsidy out of the Community budget while

### Operations in Greece (1.1.1981-31,8.1983)

operations in Greece (1.1.1861-31.5.1863)			
Region	Total loans	of which global loan allocations	
	million ECUs	number	million ECUs
Peloponnese — Western Central Greece	173*	21	11
Eastern Central Greece/Islands	160**	41	23.4
Central and Western Macedonia	147	31	19
Epirus	62	5	4.7
Thessaly	57	15	16.5
Eastern Macedonia	49	14	7
Crete	32	14	13.1
Thracy	25	6	2.6
Eastern Aegean Islands	<b>8.7</b> ·	9	8.7
	Peloponnese — Western Central Greece Eastern Central Greece/Islands Central and Western Macedonia Epirus Thessaly Eastern Macedonia Crete Thracy	Region  Region  million ECUs  Peloponnese — Western Central Greece 173° Eastern Central Greece/Islands 160°* Central and Western Macedonia 147 Epirus 62 Thessaly 57 Eastern Macedonia 49 Crete 32 Thracy 25	Region  Peloponnese — Western Central Greece 173° 21 Eastern Central Greece/Islands 160°° 41 Central and Western Macedonia 147 31 Epirus 62 5 Thessaly 57 15 Eastern Macedonia 49 14 Crete 32 14 Thracy 25 6

<sup>\*</sup> of which, 33.6 million as aid for reconstruction

<sup>\*\*</sup> of which, 46.4 million as aid for reconstruction

Austria and Yugoslavia occupy strategic positions as far as North/South and North/West-south/East traffic is concerned and a significant portion of Community traffic both passenger and goods, is obliged to use the roads of these two countries. The Community is therefore most interested in seeing a smooth flow of this traffic through Yugoslavia and Austria.

The Council Decision of 15 December 1981 for the opening of negotiations with Austria and the Cooperation Agreement signed on 2 April 1980 between the Community and Yugoslavia and entered into force on 1 April 1983 are the legal bases for all the initiatives and involvement of the Community in the transport infrastructure sector.

### **AUSTRIA**

The IKPA ("Innkreis-Pyhrn-Autobahn") motorway is a North-West/South-East transverse link which would connect the German road system at Passau with the Yugoslav road system at Maribor, passing through Linz and Graz, if improved, and would take an increasing volume of road transit between the Community and South Eastern Europe and the Middle East. The alternative to IKPA is the Tauern-Autobahn Salzburg/Spittal route which includes the Karawanken tunnel (see map p-4-)

In March 1977 Austria requested financial contribution from the Community towards the construction of the IKPA. The Council on 20 December 1983 adopted a Commission proposal to include financial considerations in the negotiations with Austria. However, in view of Yugoslavia's intentions to give higher priority to the Trans Yugoslav Highway it is believed that a motorway on the Tauern route linking the German road network to Yugoslavia (North West) and Italy (North East) via Munich and Salzburg is likely to be constructed before the IKPA motorway.

It should be noted that EIB is financing the Italian section and is negotiating with Yugoslavia on the extension of its section. This would involve major works at the Karawanken-Tunnel. The Republic of Slovenia and Austria are interested in Community financial contributions for the tunnel but they have not yet formally approached EIB.

## YUGOSLAVIA

The Trans Yugoslav Highway is of considerable importance to the Community since it provides the shortest connection between Western and Central Europe on the one hand and Greece and the Middle East on the other.

The Financial Protocol between the European Community and Yugoslavia entered into force in July 1980 and expires in June 1985 provides for 200 m ECU in loans and is based on the principle that projects to be financed by the Bank should be in the common interest of the EEC and Yugoslavia. A first loan of 67 m ECU under the protocol was granted for the development of the electricity sector in Yugoslavia.

A second loan of 67 m ECU was signed (20.7.1983) for the partial financing of the construction cost of five sections of the Trans Yugoslav Highway. The loan which would contribute to about 40% of total project cost is for 20 years and provides for a 4-year grace period without interest subsidy.

The following sections of the TYH will be financed (see map p. 4):

Ljubljana South bypass (Slovenia)	6.3 km
Okucani-Prrca (Croatia )	7.5 km
Sasinci-Ruma (Vojvodina)	4.5 km
Cuprija-Paracin (Serbia) .	13.5 km
Gradsko Bypass (Macedonia)	6.3 km

A third loan of 67 m ECU for the Trans-Yugoslav Railway project has been appraised. It covers line overhaul, electrification and installation of modern railway dispatching equipment of certain sections of the TYR. It includes the following sections of the system/

Slovenia: Installation of modern railway dispatching equipment at

Jesenice station and 145 km line overhaul

Croatia: 135 km line overhaul

Vojvodina: 103 km line overhaul

Serbia: 29 km doubling of track

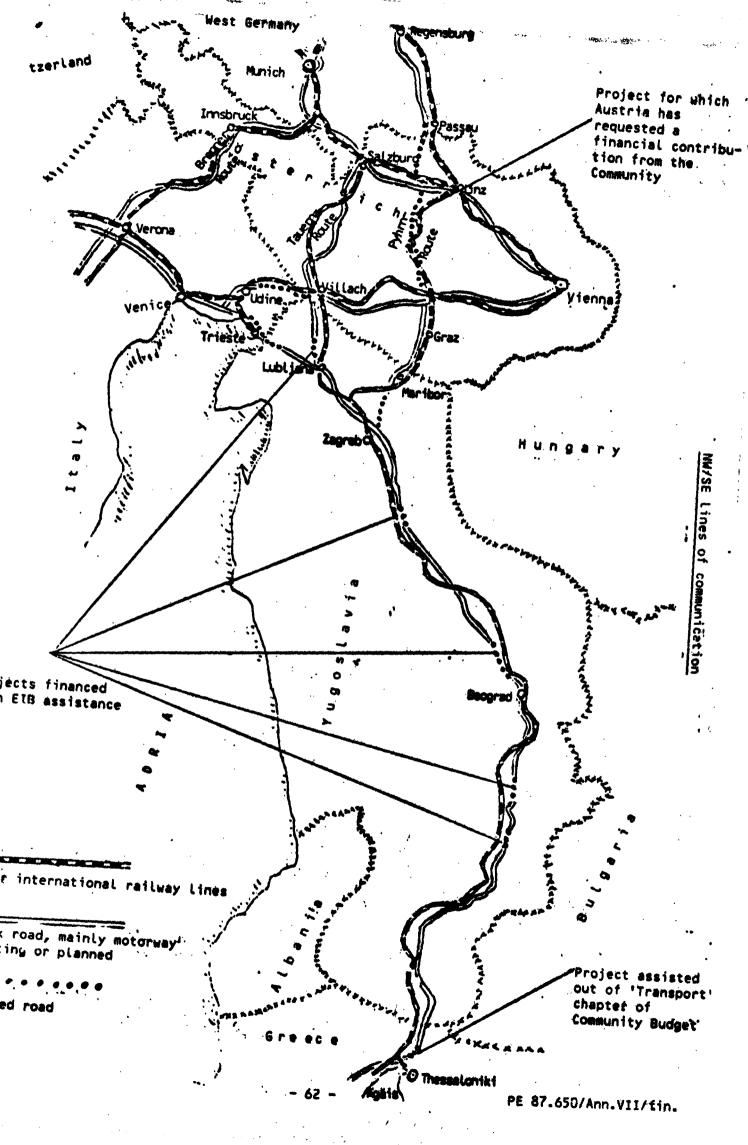
Macedonia: 20 km electrification.

The loan is expected to be signed early in 1984.

## GREECE

The first phase of the Community infrastructure programme includes a project on the Athens-Volos-Evzoni Greek/Yugoslav border road axis. Expenditure of 2.5 million ECU from the 1982 budget has been allocated.

For the financial year 1983 a credit provision of 4.0 million ECU of financial support has been included for the improvement of the Axios and Gallikos bridges — on the same Athens-Volos-Evzoni axis.



### MOTION FOR A RESOLUTION (Doc 1-309/82)

tabled by Mr LAGAKOS, Mr CAROSSINO, Mr HOFFMANN, Dame Shelagh ROBERTS, Mr JANSSEN VAN RAAY, Mr MOORHOUSE, Mr KALOYANNIS, Ar NIKOLAOU, Mr HOWELL, Mr SEEFELD, Mr BUTTAFUOCO, Mr IRMER, Mr MORELAND, Mr BAUDIS and Mr CARDIA pursuant to Rule 47 of the Rules of Procedure on the construction of the motorway linking Igoumenitsa to Volos

### The European Parliament,

- A. Considering the importance that the Community attaches to supporting infrastructure works in the field of transports, especially in the remote areas of the Community,
- B. Considering the necessity to strengthen relations and, in particular, trade transactions with the countries of the Middle East,
- C. Considering that Greece fulfils all necessary conditions for being an important bridgeway to the Middle East,
- D. Considering, moreover, that the improvement of sea transports between two member-countries, i.e., Greece and Italy, can be a highly important alternative for intra-community transports,
- E. Taking into account the fact that the Italian and Greek Ministers of Transport declared recently their will for cooperation and announced their decision to construct a new port in Igoumenitsa, in combination with the construction of a motorway linking Igoumenitsa to Volos.
- 1. Underlines the particular importance that such an infrastructure work has for the Community, that is the construction of a motorway linking these two ports of importance for the transport of persons and goods, situated on the West and East coast of Greece respectively;
- 2. Requests the financial aid of the Community for the construction of this work, within the framework of the Community budget and on the basis of the special funds that the Community must grant to support infrastructure works in the field of transports.

ANNEX IX

### MOTION FOR A RESOLUTION (Doc. 1-513/82)

tabled by Mrs Nikolaou, Mr VGENOPOULOS, Mr LAGAKOS, Mr PLASKOVITIS, Mr Nikolaou, Mrs Pantazi, Mr Markopoulos, Mr Poniridis, Mr Papantoniou, Mr Bournias, Mr Kallias, Mr GEROKOSTOPOULOS, Mr PAPAEFSTRATIOU, Mr KALOYANNIS, Mr PROTOPAPADAKIS, Mr KAZAZIS, Mr ADAMOU, Mr ALVANOS, Mr PAPAGEORGIOU, Mr PESMAZOGLOU and Mr

pursuant to Rule 47 of the Rules of Procedure on the urgent provision of assistance to Greece for the repair of the Corinth Canal, which is in danger of becoming obstructed through the dilapidation of the underwater foundation walls.

## The European Parliament,

- A whereas the Corinth Canal constitutes a nodal point in international marine communications and the fastest sea route both for vessels coming from ports in the Ionian Sea, the Adriatic Sea and South Italy and for those passing through the Strait of Messina bound for ports in the Eastern Mediterranean and the Black Sea, and for those sailing in the opposite direction,
- B whereas in 1981 alone vessels representing a total tonnage of 4,316,504 passed through the canal, 76% of which belonged to EEC countries,
- C whereas the Corinth Canal constitutes within the Community an important monument from both a cultural and a technical point of view and has tremendous touristic importance,
- D whereas the canal has great importance in the context of Greece's regional development,
- E whereas the occasional falls of earth masses due to the special geological composition of the ground forming the canal walls and to the extensive damage suffered during the Second World War resulted in the canal being closed to shipping, from the time of its construction until 1945, for five whole years, at tremendous expense to Greek and international shipping,

- F whereas the danger of earth falls has today increased disturbingly owing to the almost total dilapidation of the foundation walls brought about in the course of time by the speed of water at the water-line and below it generated by the passage of shipping,
- G whereas the canal is 6,343 metres long and throughout its length, on both sides, foundation walls stretch from the bottom, which is 8 metres deep, to 2 metres above sea level, and the greater part of these walls are today dilapidated,
- H whereas the cost of repairing the damage and the construction of two new and essential bridges is of the order of 70 million ECU, which sum cannot possibly be met from the revenue received by the public corporation operating the canal or by the Greek State,
- I whereas repair of the actual damage poses certain constructional problems the resolution of which calls for special know-how,
- Considers it essential that the damage to the canal be repaired as quickly as possible to prevent it becoming completely unusuable;
- 2. Requests the Commission to propose immediately the provision of the financial aid necessary to implement the programme of repair work;
- Requests the Commission to provide the indispensable technical assistance;
- 4. Instructs its President to forward this resolution to the Council of the European Communities.

## MOTION FOR A RESOLUTION (Doc. 1-7/83)

tabled by Mr EPHREMIDIS, Mr ADAMOU and Mr ALAVANOS pursuant to Rule 47 of the Rules of Procedure on the modernization of the railways in the Peloponnese and the widening of the Corinth Canal

## The European Parliament,

- A having regard to the need to modernize the Greek rail and waterway network up to European standards so as to expedite the movement of goods, limit costs, increase trade, etc.,
- B stressing the need to promote the Peloponnese region, which lags behind both by Greek and European standards,
- C recognizing the positive effect on the internal economy of the Peloponnese region which would result from rail and waterway connections between Greek ports and other countries and between Greek ports themselves,
- D whereas the rational exploitation of Greece's ports and their transport communications with the external market is essential,
- 1. Considers it useful and necessary to take immediate and effective measures to modernize communications between Athens-Piraeus and the ports of Kalamai and Patras and to draw up a programme for widening the Corinth Canal;
- 2. Requests the Commission to cooperate in the preparation of a study of the problems arising from the continuing technological backwardness of the Peloponnesian railways, which date from the second half of the 19th century. The system was constructed by means of an exorbitant foreign loan which the Greek public is still paying off using a track gauge of 1 metre, which does not permit direct connection with the national Athens-Europe network with its track gauge of 1.43 m. Widening the tracks in the Peloponnese to correspond with the national network (1.43 m) will increase direct transportation of goods to the ports of Kalamai and Patras, reduce the cost of transporting goods to the European market and broaden the scope for development of the economy of the Peloponnese,

- 3. Calls on the Commission to conduct the requisite study into the current situation regarding the Corinth Canal, the possibilities of widening it to meet the current requirements of shipping at the port of Piraeus and of commerce and industry in Athens, which accounts for 40% of the industrial potential of Greece and 31% of the population, and to use this as a basis for further action,
- 4. Instructs its President to forward this resolution to the Council and the Commission.

MOTION FOR A RESOLUTION (Doc. 1-654/83)

tabled by Mr LAGAKOS pursuant to Rule 47 of the Rules of Procedure on Greek railways

### The European Parliament,

Having regard to,

- A. the resolution of 15 December 1981 on Community policy in the rail transport sector,
- B. the need to promote international cooperation between railway undertakings in both the goods and passenger sectors,
- c. the special importance of international and national transport for railway undertakings,
- D. the lack of common borders between Greece and the rest of the Community, separated by the Yugoslav railway network which is inadequate in important respects,
- E. the inadequate infrastructure of the Greek railway network,
- F. the fact that the Greek Government gives priority to improving the infrastructure of rail transport and includes it in the five year development plan,
- 1. Proposes that the Community encourage these efforts by providing specific financial aid, especially as regards the construction of a railway line between Idomeni and Athens which is of paramount importance for transport at national and European level;
- Instructs its President to forward this resolution to the Commission, the Council and the governments of the Member States.

#### MOTION FOR A RESOLUTION (Doc. 1-1308/83)

tabled by Mrs THEOBALD-PAOLI pursuant to Rule 47 on the Rules of Procedure on the development of maritime links between the French Mediterranean regions and Greece

## The European Parliament,

- having regard to the report by Mr HARRIS on the peripheral regions of the Community<sup>1</sup>,
- A. having regard to the need to strengthen links between the Community's Member States and Greece,
- B. having regard, for this purpose, to the need to establish new and faster links for tourists and migrants between the North and West of the Community and Greece,
- C. concerned to make the best use of existing installations and, if the opportunity presents itself, to promote the development of the less-favoured regions of the Community,
- D. whereas the establishment of a link
  - between, on the one hand, the French port of Toulon, equipped as it is with all the necessary installations, which are still under-used, and accessible as it is by road and rail from the United Kingdom, the whole of western France, Belgium, the Netherlands, Luxembourg and the German Rhineland,
  - and, on the other hand, Greece,
    precisely fulfils all these objectives.
- 1. Requests the Commission to approach those active in the economic life of the Community to encourage the development of an interregional maritime link for tourists between Toulon and Greece;
- 2. Appeals to Community Governments to join in encouraging the establishment of this link, which is in the Community's interest;
- 3. Instructs its President to forward this resolution to the Commission, the Council and the governments of the Member States.

### OPINION

of the Committee on Regional Policy and Regional Planning

Draftsman: Mr DE PASQUALE

On 26 November 1982, the Committee on Regional Policy and Regional Planning appointed Mr DE PASQUALE draftsman of the opinion.

The committee considered the draft opinion at its meetings of 3 and 24 February 1984. It unanimously adopted the draft opinion on 24 February 1984.

The following took part in the vote: Mr DE PASQUALE, chairman and draftsman; Mrs FUILLET, vice-chairman; Mr BERNARD (deputizing for Mr HUME), Mrs BOOT, Mr CINGARI (deputizing for Mr GLINNE), Mr GRIFFITHS, Mr HUTTON, Mr KAZAZIS, Lord O'HAGAN and Mr SHERLOCK (deputizing for Mr J.D. TAYLOR).

#### INTRODUCTION

I

- 1. This opinion draws attention to two related themes: firstly, the undoubted contribution to development that transport infrastructure could make to Greece and secondly, the development of the existing internal Greek transport systems as well as the future requirements as a member of the Community.
- The facts are that, (a) Greece <u>depends</u> geographically on three transit countries: Yugoslavia, Switzerland and Austria for all her trade with the Community, (b) Greece has the <u>lowest</u> index of "economic potential" in the Community (this index measures the relative accessibility of a region with respect to a given economic activity), (c) Greece has the <u>poorest</u> transport infrastructure and out-dated modes of transport in the Community.
- 3. This committee's visit to Greece in September 1982 has been beneficial in many respects; we have furthered our knowledge of the country, experienced its transport systems and gained information which is most valuable and necessary for an objective assessment of Greece's transport problems. Furthermore, the COTTRELL report on "relations between the Community and Greece in the field of transport", the CARDIA Report on "transport problems in the peripheral regions of the European Community"<sup>2</sup>, the HARRIS Report on "the peripheral maritime regions and islands of the European Community"<sup>3</sup>, the KAZAZIS Report on "the Mediterranean Programmes" as well as the GIANNOPOULOS Study on behalf of the Commission on "the transport infrastructure requirements in Greece after her accession to the European Communities" have provided your draftsman with adequate material for this opinion. Furthermore, your rapporteur in his report on the regional problems of Greece will assess the broader contribution to development that transport could make in the field of regional policy and planning.

<sup>1</sup> OJ C 346, 31.12.80

<sup>2</sup> PE 83.296

<sup>3</sup> OJ C 161, 20.6.83

<sup>4</sup> PE 86.184

Transport Research Unit, University of Thessaloniki, "The transport infrastructure requirements in Greece after the accession to the European Communities" Commission, DG VII, June 1982

<sup>6</sup> PE 86.837

- 4. Should one examine the development of a country's transport systems, one might have a complete picture of the development of a country as a whole. Greece's path of development is characterised by the absence of an industrialisation policy regarding the location of industry; thus, the prevailing factors for the locational decisions of industry have been:
  - a. cost of transportation of inputs and final goods
  - economies of scale in production and internalised service externalities
  - c. potential for communications
  - d. availability of skilled labour, and
  - e. interrelationship between the primary, secondary and tertiary sectors.
- 5. These five factors have mainly influenced the post-war development of Greece resulting in two centres of polarisation: the Athens area and Thessaloniki; these two centres account for 50% of total GDP, 55% of industrial production and about 75% of services; one-third of the total population is concentrated in the Athens area alone. Another four secondary centres of economic activity are Patras, Heraklion, Ioannina and Larissa-Volos. The poorest and most isolated regions are predominately agricultural with only the bare minimum of social services.
- 6. It should be noted that the "poles and axes of growth" in Greece are <u>closely correlated</u> with the main "road and railway" networks (see Annex I and II). GIANNOPOULOS<sup>2</sup>, cites numerous examples of a new or improved transport infracture in Greece which has acted as an incentive for industrial investment as well as a pole for economic growth. For example, improvements in the airports at Kos in the Dodecanissa and at Kalamata in the Peloponnesse were followed by a threefold increase in the number of passengers; the improvement of a road connecting the city of Aegion with Fteri has brought about a change in population growth and has spurred employment opportunities in the region.

<sup>1</sup> A "growth pole" is a summary indicator defined to include three criteria: (a) the degree of economic specialisation, (b) the number of the population, and (c) the flow of communication.

<sup>2</sup> G. GIANNOPOULOS, "Transport and the Challenge of Structural Change" Istanbul, 1979.

7. The whole rail and road network of Greece has developed to serve the poles and axes of growth. What is needed though, is for the transport infrastructure to be used as a means or as a caterlyst for regional development in favour of those regions of Greece that are peripheral and isolated. This transport strategy, however, faces enormous difficulties.

## Road network

- 8. Given the land morphology (about 70% of the country is mountainous) and the fact that 18% of the country consists of islands surely dictates that mainland roads, for reasons of construction costs and maintenance, should run along the coast. However, 63% of the national and provisional network runs though areas designated as either hilly or mountainous.
- 9. The Ministry of Public Works classifies the national system as having a "good" asphalt surface (i.e. 93%); the provisional system as having a "satisfactory" asphalt surface (i.e. 54%) and the agricultural network as being in a "very poor" condition (123.084 Kms have no asphalt surface). Motorways account for 790 Km of the national system (around 9% of the total) which is mainly on the Patras-Athens-Thessaloniki route (see Annex I).
- 10. There are no in-built safety systems; the dual carriageways have no central reservations and the few barriers that exist on mountain roads are of six metres width at most. There is no road numbering or sign posting and it is no wonder then, that Greece mourns a road death every eight hours. In fact, in 1982, the number of deaths due to road accidents was expected to be around 1.400 people.

### Railway network

11. Greek railways have a legacy of neglect: slow speeds, inadequate infrastructure, out-dated equipment, poor traffic receipts and limited road and rail links. A substantial mileage of track in the Peloponnese is of metric, non-standard gauge, which presents an additional barrier for freight movement.

- 12. Single line track is prevelant and causes congestion and lengthens travelling time. Even on the most developed line: Athens—Thessaloniki, trains cannot travel faster than 100 Kph and are even forced to below 50 Kph at several points due to steep gradients and tight curves. As a result of this the level of internal activity has decreased significantly; railways were responsible for only 6.5% of passenger traffic and 14% of goods traffic in 1980.
- 13. Furthermore, the spatial distribution of the population does not encourage the full utilisation of road and rail capacity. Remote regions which are in most need of easy communications experience the highest incidence of bad roads and are not connected to the rail network at all.

## III GREECE'S TRANSPORT REQUIREMENTS

- The magnitude and pattern of trade between Greece and the Community is expected to change considerably. Given also that Greece's trade relations with the Middle East, North Africa and Eastern Europe are expected to grow, the demand for transport services will increase accordingly. Should the Community as a whole as it is expected increase its trade with the Arab States, Turkey and Africa, Greece could become a transit country.
- 15. It is estimated that approximately 8 million tons of transit freight could be handled annually for the EEC countries alone. It is also likely that if port infrastructure and organisational efficiency improves, Eastern European countries would prefer to use Greek ports for their trade with the Middle East and African countries. However, is Greece equipped to meet such an increased demand for transport services? This question should be answered with caution.
- 16. The Commission study points out that factors such as government agreements, preferential treatment of certain modes of transport

<sup>1</sup> op. cited. Vol. 5., p. 25

<sup>2</sup> op. cited. Vol. 5., p. 30

and transit permits influence considerably the final choice of mode; the question of differences in cost <u>and</u> time were found to play a less important role. If one adds the negative psycological feelings of the Greek exporters towards certain modes of transport (i.e. against using rail) the simple picture of Greece's transport problems is further complicated. There is, however, a sector that has developed impressively: shipping.

# Maritime sector

- 17. To understand Greek shipping one requires "caution" because there are Greek shipowners who operate from London, New York and Monte Carlo or even under a flag of convenience. If tonnage and descent (Greek origin) irrespective of flag registration are taken as criteria then in 1979 Greek shipping was the second largest in the world, after Liberia, with over 52 million GRT. If Greek flag registration and descent are taken as criteria then Greece occupied the third position in the league of shipping nations behind Liberia and Japan. The addition of the Greek fleet to that of the Community makes the EEC maritime sector a powerful competitor in a free trading area.
- 18. The composition of the Greek fleet: less tankers and considerably more dry-cargo vessels, is more suitable for developing a Community maritime policy geared to the needs of transit trade. In comparative terms Greece owns as many dry-cargo vessels as the other nine members of the EEC combined. Given the historical tendency of Greece towards the sea, its experience and knowledge of merchant trade, the Greek fleet could become a powerful instrument for a Community maritime policy. An aspect of this policy is the "combined transport systems"; the best-known mixed transport modes are:
  - (i) the roll-on/roll-off system (carrying lorries on ferry-boats or ro-ro vessels)
  - (ii) combinations of aeroplane and ship
- 19. Greece's geographical position makes transit more economically advantageous in order to develop combined modes. Given that the largest merchant fleet is currently going through serious difficulties due to a shortage of demand, Community transport costs would be reduced to a minimum by the over-capacity in shipping and by development of better methods of loading and unloading. Furthermore, combined transport modes have the advantage of simplifying the frontier procedures and of accelerating the speed of transport.

20. Given the historical development of Greece's transport systems, the role of transport infrastructure in the creation of economic opportunities, the fact that transport costs create geographical price differentials which can cause real income differentials among regions as well as that efficient transport systems improve the "economic potential" of a region, then, a change in the transport strategy of Greece is imperative. The Community using its Regional Fund, Mediterranean Programmes today and possibly its future Transport Fund - if created - may assist the future requirements of Greece in the field of transport in the following:

## As regard the road network:

- 1. The road strategy should consist of two elements:
  - a. existing infrastructure should be improved substantially by widening existing roads, road numbering, sign posting, road barriers and constructing road bridges to eliminate tight curves and steep gradients so that to increase inbuilt safety.
  - b. constructing new road networks with an objective to break the isolation and neglect feeling of peripheral and remote regions and thus promote an axe of development.
- The Egnatia avenue axis: Igoumenitsa-Netsovon-Kozani-Thess-aloniki-Kavala-Alexandroupolis should be completed as soon as possible and on the basis of this axis another road should be designed to link the peripheral regions along the neighbouring countries: Bulgaria, Yugoslavia, Albania.
- 3. A new highway: Athens-Levadia-Amfissa-Agrinion should be constructed; it would divert passenger and freight traffic from the congested Athens-Korinthos-Patras highway.
- 4. Road networks in islands should be designed on the basis of a circular and coastal axis like in the case of Thassos but unlike in the case of Andros or Chios.

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- The cities of Athens and Thessaloniki excluded from Regional Fund's assistance should receive Community funding.

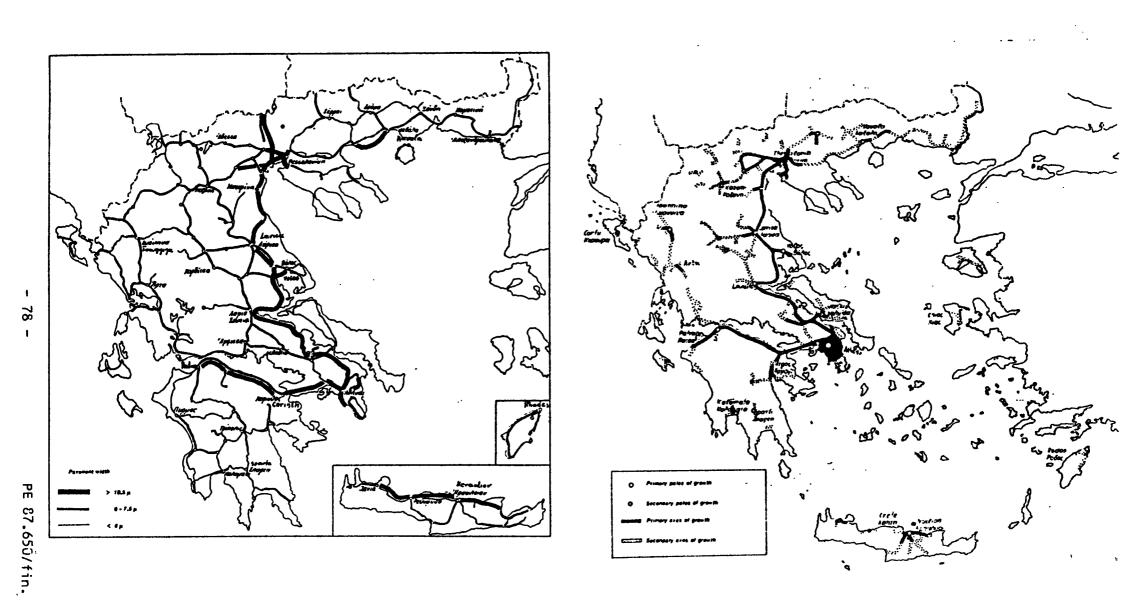
  About 75% of all private cars circulation in the country are in Athens and Thessaloniki (55% and 20% respectively). Public transport in both cities is poor and unreliable largely because of traffic conditions. This has significant consequences:
  - (i) it slows down the movement of goods and people
  - (ii) it wastes fuel resources
  - (iii) it causes environmental pollution.

### As regards the rail network

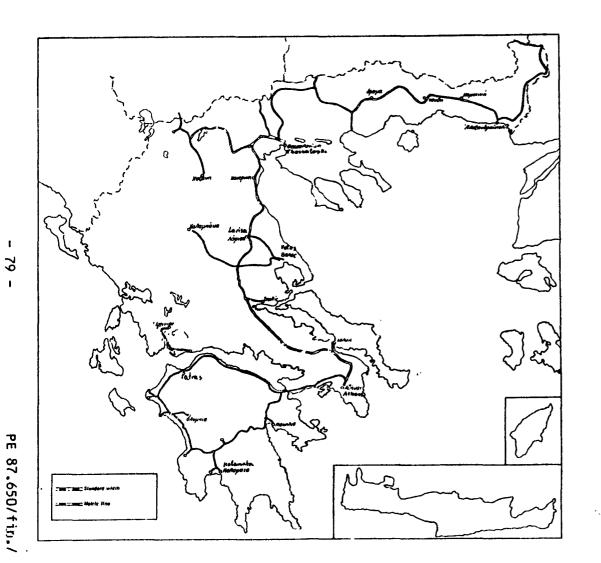
- 6. Greek railways need a major restructing both in organisation, commercial policy, infrastructure and routing. Specifically:
  - (i) The Peloponnese metric, non-standard gauge of tracks should be replaced by an internationally standard width and should change its routing by correcting Kyparissia-Pylos-Kalamata-GythiOn-Leonidion-Nafplion.
  - (ii) The line Thessaloniki-Alexandoupolis should be split into two: one connecting Thessaloniki-Amfipolis-Kavala-Komotini and the other connecting Komotini-Xanthi-Drama-Sidirokastro-Doirani-Aridea-Florina-Kastoria.
  - (iii) The Valos-Kalambaka line should be extended to link Ioannina and Igoumenitsa.

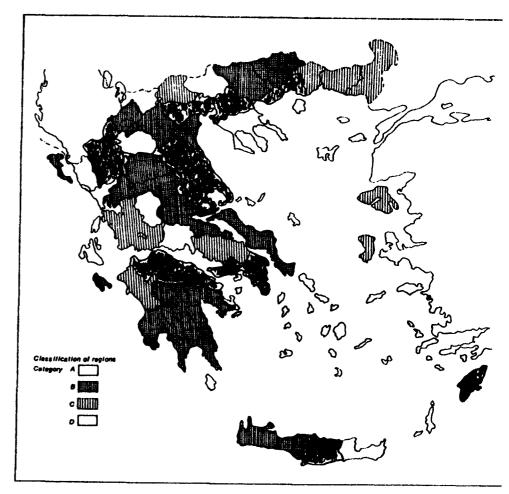
### As regard shipping

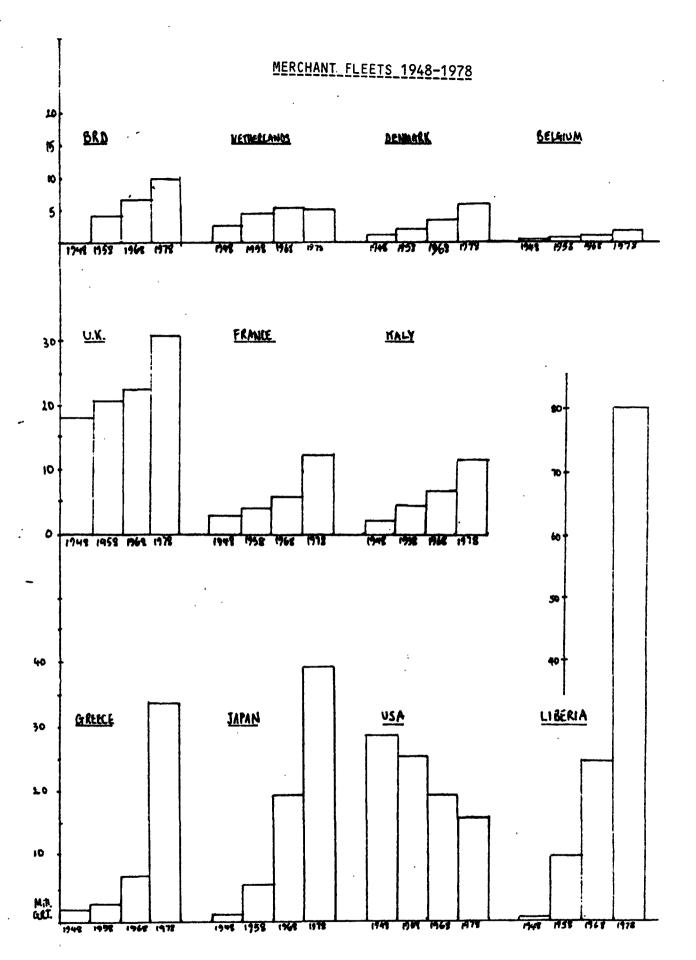
- 7. The combined transport systems and mobile transport infrastructure should become a priority. Greece has a comparative advantage due to its merchant fleet and its geographical location. To this end the following should be encouraged:
  - (i) standarised packaging in the form of containers palettes and lighters.
  - (ii) improvement of warehousing and upgrading of loading and unloading gantry should precede large-scale construction of further facilities.



Source: G. Giannopoulos, "Transport and the Challenge of Structural Change, Istanbul 1979







Source : LLOYD'S REGISTER OF SHIPPING STATISTICAL TABLES 1979

Reprinted from the 'R. COTTRELL report on relations between the Community and Greece in the field of transport' Doc. 1-684/80

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