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**MARITIME TRANSPORT IN THE MEDITERRANEAN BASIN:
CONDITIONS FOR IMPROVING EAST/SOUTH TRAFFIC,
RATIONALISATION AND IMPROVEMENT OF THE
INFRASTRUCTURE OF PORTS***

97-01

Yannis Pyrgiotis**



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ΠΥΡ**

**UNIVERSITY OF THESSALY
DEPARTMENT OF PLANNING AND REGIONAL DEVELOPMENT**

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ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΙΑΣ
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Introduction

The Mediterranean is considered as a sea that unites. For millennia it functioned as a space where multiple and direct links were forged between its shores and its islands, civilisations were cross-fertilised and the grounds for civil society as we now know it were laid. It provided opportunities for the integration of human space while preserving the distinct and extremely varied cultural identity of its peoples. It embedded them with a deep rooted sense of belonging and affinity which has survived fratricidal, ethnic and colonial conflicts and is still manifested in multiple ways.

Today, the Mediterranean is an area of fragmentation and conflict, economic as well as ethnic and religious, of acute inequities and of profound socioeconomic cleavages. This is reflected in the structure of intramediterranean exchanges and in the transportation patterns.

In this context, the Mediterranean Sea by its mere physical attributes is a geographic factor which further increases fragmentation in the region: in spite of the physical proximity of northern and southern shores, the sea is not anymore a unifying element but acts as a barrier with respect to terrestrial infrastructure networks.

Distance and cost have a relative value with respect to sea transport: distance is very crucial with respect to time but time itself is not always important with respect to goods transported by sea. It is often the case that timing, reliability and precision are more important than time in the delivery of goods. Timing and dependability have little to do with distance and more with port organisation and interoperability of services in the logistic chain of transport as well as with factors that are outside the sphere of transport services such as quality and reliability of the productive structure in the country of origin.

Distance also plays a very limited role in determining the cost of transport. More important here is the volume of goods transported and the way they are transported since there are obvious economies of scale involved in maritime transport. Costs associated with port operations account for more than 50% of total sea transport costs. In the case of the Mediterranean, proximity diminishes the relative weight of the maritime link in the transport chain and increases the share of port costs and land transport beyond.

Mediterranean Traffic.

Maritime traffic in the Mediterranean is of three kinds:

Firstly, the Mediterranean is a transit zone for intercontinental traffic service as a link between the Black Sea, the Red Sea and the Atlantic through its straits: Suez Canal, the Dardanelles passage and Gibraltar. Liner services and oil tankers connecting Northern Europe and the East Coast of N. America with E. Africa, the Indian ocean and the Far East cross the Mediterranean.

The Mediterranean is also a point of origin or destination for maritime traffic.

Finally, and most importantly for our discussion, although relatively small in terms of the total volume of traffic, the Mediterranean is the space for exchanges among its shores.

Infrastructure inequalities: endowed and congested North - deprived South.

There are considerable differences in the level of transport infrastructure in the European Continent and the Mediterranean; differences which do not only reflect the present level of development but also, to a large extent, undermine the prospects for economic development and convergence of the regions of Europe.

The areas of advanced and diversified economic structure in the North of Europe possess a high performance modern and dense transport system, more or less multimodally coherent with respect to the most advanced systems on a global scale.

The South of Europe is composed of a North - the Latin arc - which has achieved a high level of integration, both in economic terms as well as in transport infrastructure, and a South - mostly composed of lagging Objective 1 regions - which are the promontories of the European peninsula, characterised by isolation and peripherality, and a high degree of spatial fragmentation both nationally and regionally. This area is characterised by inadequate and inefficient transport infrastructure systems, a predominance of road transport and low intermodal connectivity, esp. in Greece, as well as a low level of integration, nationally, regionally and with respect to its main trading partners in the economic centre of Europe.

In the southern and eastern shores of the Basin transport infrastructure is inadequate both at an international and national level. The territorial structure of the network is fragmented making it difficult to reach the few nodal points that exist from a wider hinterland.

The distribution of maritime transport infrastructure, especially ports, follows more or less the same pattern as for the other modes of transport, but also an autonomous course with some important regional variations.

History, tradition, geophysical attributes and globalisation processes all play their part, the latter becoming increasingly prominent in shaping the structure of transport and the distribution of facilities.

Thus, for example, many ports have developed on the eastern shores of the Mediterranean not in response to requirements and resources of the coastal countries but as the endpoints of pipelines for oil produced in and transported from non-Mediterranean countries.

Taking the case of Greece, Piraeus is the top port in S. Europe in terms of vessels calling, largely because of the high passenger movements required to

serve a widely dispersed and fragmented insular region. The port of Thessaloniki, a deep-bay port, remained stagnant for many decades, due to the division its wide Balkan hinterland by borders of countries belonging to rival geopolitical formations. The world strength and dynamism of the Greek merchant marine and its maritime operators cannot be attributed to its economic position but to tradition and to the strong links it holds with the international Maritime transport market.

The factor however that globally and directly affects maritime transport is its integration to a chain of multimodal links, through high-level service operations which are in themselves increasingly linked to the multinational organisation of the economy. Of crucial importance in this 'combined carriage' system, are the logistics, defined as the 'set of procedures and activities to optimise the flow of cargo through the transport chain' (EC 95a). In this sense ports of the European North are highly competitive, even with respect to goods transported to European Mediterranean regions. In spatial terms, the concentration of maritime transport infrastructure in a small area on the shores of NW Europe and the deficiencies and lag in infrastructure investments in the southern regions of the Union have led to a situation where most of the trade of European North with non-European Mediterranean countries is effected through the Northern ports, but also the hinterland of northern ports extends far to the South of Europe, servicing a large part of the community territory. Thus, for example, 15% in value of Italy's exports to non European Mediterranean countries is effected through northern European ports. For France, its northern ports account for over 60% of trade traffic with non European Mediterranean, while another 15% is effected through northern European ports outside France (EC 1993). This, of course, contributes to the congestion of central areas and to the dependence and marginalisation of peripheral areas.

An important study on the impact on regional development of the EU from the non EU Med countries conducted for the European Commission by a French consultant Agence TAD (EC 1993), indicates that the quality of services in southern Mediterranean ports and the volume of traffic is such that it is more costly to send a container from a Southern port to a Maghreb destination than to the U.S. or Japan.

According to the study, the total volume of exchanges between the two shores reached, in 1990 200 million tonnes, of which 124 million represented petroleum products. In comparison to this, the traffic generated at the port of Rotterdam alone was close to 300 million tonnes for the same year. Thus, the cost of shipping a product from Tunis to Marseille is about the same as shipping it to Rotterdam (EC 1993).

Exchange patterns and trade inequalities.

Let us consider the following facts:

- Of the total volume of overall trade in the Mediterranean intra-mediterranean trade counts for only 29.4% while extra-mediterranean trade counts for the remaining 70.6%.

If we look specifically at the volume of trade flows along the EU-Mediterranean coasts, 26% of imports were from other Mediterranean countries, while 30% of the volume of exports were to non-European countries in the Mediterranean (EC 1995a).

- In economic terms, if we look at the value of traded goods, for Europe(EU) exports to non-European Mediterranean countries account for only 8% of extracommunitarian exports while the value of its imports from these countries represents 7% of its total value (or about 3% of its total - including intracommunity - imports).
- On the opposite shores the picture is different: the economy of East and South Mediterranean countries is highly dependent on the EU. More than half of the value of their imports come from the European market (EU 12 : 51%). This is even higher for the Maghreb countries and accounts for 2/3 of their imports. Non European intermediterranean trade on the other hand is very low both in terms of volume as well as of value (EC 1993). It is characteristic that the trade among the Maghreb countries represent less than 5% of their foreign trade.
- In terms of north-south balance clearly the winner is the EU. The total value of trade in 1990 was close to 67 b ECU, equally distributed between imports and exports. Excluding energy, however the remaining 50 b ECU represent a 2 : 1 proportion between EU exports and imports. The trends in the balance of trade have also evolved at the expense of non European Med countries. From 1985 to 1990 their balance was reduced by 27 b ECUs, thus eliminating fully the advantage they held at the beginning of this period (EC 1993).

From the above discussion, as well as from tables included in the supporting material, we could draw several interesting conclusions: the overall level of regional economic integration between both north and south and east and west is rather low. However, there are important regional differentiations. Vertical (north - south) ties are more prevalent; that is European Mediterranean countries trade more with their corresponding neighbours on the opposite shores. Maghreb countries have the strongest trade relations with France and with Spain, while eastern mediterranean countries have the strongest trade relations with Italy, and, secondarily, with Greece (primarily Cyprus and, secondarily, the Middle East). However, trade is also prevalent on an East-West axis, mostly attributed to the trade of hydrocarbons. Among countries on the southern and eastern shores, exchanges are negligible thus revealing extremely low levels of regional integration.

Of all the countries bordering the Mediterranean, Turkey, Israel and France are the least integrated trade partners. Turkey's trade is oriented directly to north European partners (especially Germany) and Israel's to non-EU countries, while for France, who is the single most important trade partner in the region, the share of mediterranean trade takes up a very small part of its total exchanges with the rest of the world.

Absence of proximity advantages.

We have seen that the north-south trade balance in the Mediterranean is in favour of the EU.

Many of the European regions bordering the Mediterranean are objective 1 regions. A crucial question therefore in the development of trade relations and of transport infrastructure in the Mediterranean is to what extent European regions lagging behind benefit from this exchange, what is their share of the market and what are the prospects for the future. The EC study on the impact of South and East Mediterranean countries on regional and spatial development of the EU (EC 1993) has examined this issue and has concluded that South European regions (Spain, Italy, South France and Greece) do not benefit accordingly from their privileged position as an interface between the EU and the Mediterranean countries. According to the study, South Europe represents only 37% of all the exchanges between the EU (EU 12 : 1990) and the rest of the Mediterranean, that is 29% of the exports and 47% of the imports. The balance of trade between the two shores favours North Europe, with a surplus of 4,3 bECUs while South Europe presents a deficit of 3,8 bECUs. Excluding energy, South Europe accounts for 29% of exports and 27% of imports compared to its share of EU GDP, which is 33%. Further, over a five-year period (85-90) South European imports and exports have increased but their share with respect to EU trade as a whole has diminished. Overall, the study concludes that the greatest sensitivity to exchanges with the Mediterranean countries is exhibited by northern countries such as Northern France, BENELUX and Germany (EC 93).

As explained earlier, there are regional differentiations to this picture. Some southern regions are benefiting from their geographical advantage more than others : Greece's share of exports to Emed is higher than its EU GDP share and so is the share of the imports of Southern France. Italy is on the level, suggesting a balance in favour of the developed North.

The implication of this discussion is not that Objective 1 regions stand to lose necessarily from an expansion of trade between the two shores of the Mediterranean. It is, rather, that geographic advantages alone cannot ensure a preferential treatment on the part of southern Mediterranean economies or automatic benefits accruing to them. On the contrary, under the present structure of regional economies and the division of labour, benefits would tend to accrue to the more remote but more developed regions of the North.

Macroscopically, and disregarding regional variations, there is obviously a northcentric bias in the way that markets operate and, in the absence of explicit policies to counter this bias, it is only natural that all of the mediterranean, north and south, will look to the north to promote its exchanges : raw materials, cheap labour, agricultural products, tourist services, traditional industrial goods, in exchange for high value added products, technology and know how. Thus, in order for the Mediterranean to play the role of a "unifying sea", alternative strategies would have to be developed by the neighbouring countries.

It is the case for Mezzogiorno and Greece, for example, two of the more disadvantaged and peripheral regions of the EU, that they stand in the middle of two as yet distinct regions: the EU and the Mediterranean Basin. In the relevant regional development study which investigates the prospects for the Central Mediterranean (EC 1995b) it is observed that in a northcentric view of future development, the Central Mediterranean region is condemned to peripherality, while in its ability to act as a bridge with the wider region it can acquire a central role in the future of the EU as a whole.

Regional markets as an alternative?

Let me bring an example of positive developments from our vicinity.

The end of isolation and the opening up of the Balkan countries may already serve as an example of the opportunities for promoting the aims of economic and social cohesion through the development of new spatial structures that are less hierarchical and more polycentric, that promote regional integration and cooperation, create new interdependencies and networks of solidarity and may eventually lead to a reduction of the dependence of peripheral areas from the economic centres of Europe.

Recent studies conducted at the University of Thessaly (Petraikos 1996) reveal the prospect for a gradual recomposition of an historic economic space with the creation of a regional Balkan market, in a very short period, by exploiting geographic factors such as adjacency and proximity, but also other, non-economic, historical, cultural, and social factors, as well as tradition, that are characteristic of most of the Balkans and of the Mediterranean countries. Thus, Greek Balkan trade relations have expanded rapidly both in terms of total volume of trade as well as in terms of the high increase recorded in its share of total Greek trade.

What is perhaps more important than actual volume increase is the structural characteristics of this exchange: measures of intra-industry trade indicate that Greece and the Balkan countries as a whole have a relatively high share of intra-industry trade compared to the share of Greek trade with the EU and the world. This development by itself is very encouraging in that it creates the conditions for overcoming the disadvantages of inter-industry trade which characterise the exchanges between Greece and the EU and which have kept it at low integration levels after 15 year of membership. The comparative advantages of a country like Greece and like most Objective 1 regions, in interindustry trade, such as labour-intensive industries and specialisation in traditional sectors and products, would face increasing competition from other similar regions, or even from other developing countries, as e.g. the Maghreb, while, by themselves they do not guarantee the transition of the economy to higher order production structures. The opportunity for a high-order type of integration which is offered in its relations with its neighbours and which is probably explained by geographic as well as by cultural and affinity factors, opens the way for a country of the European South like Greece to seek a parallel in nature and complementary to that of the EU, integration process (Petraikos 1996).

Implications for infrastructure provision.

On the basis of the above discussion what strategies should be followed for infrastructure provision?

In a highly differentiated space such as that of the Mediterranean, global policies of massive investments for infrastructure improvement might not be cost-effective or achieve conditions that would by themselves enhance cooperation and exchanges.

Trade between the two shores will continue to increase at steady rates of about 3-6% per year south to north and north to south respectively (EC 1995a) but this alone does not justify any massive investments on either shore. Rather, policies and projects must be selective and reflect the possibilities and opportunities for a new decentralised territorial organisation promoting regional integration and regional markets.

In this new spatial organisation, the seas of Europe could play an important role. The possibilities on the eastern front offered by the Baltic and the Black Sea have already been recognised. With the end of eastern isolation these two important seas are restored to an enhanced role by making possible the promotion of communication and exchanges between peripheral maritime regions and the vast hinterlands that lie beyond. The exploitation of opportunities for the development of maritime transport and other infrastructure projects, is in cases like the Black Sea, well along its way either through bilateral agreements, or through wider regional endorsement. Similarly, as we shall discuss below, new possibilities are offered in the Adriatic, especially through the development of efficient short sea shipping links. An obvious area that offers possibilities for developing initiatives for local cooperation is the Aegean. In other parts of Europe, one could envisage possible advantages for the development of regional markets from improved connections between north and south nodal points, such as Algeiras - Tangier and Trapani - Tunis (EC 1993).

On the regional scale, certain common traits are apparent indicating the need for differentiated strategies:

Policies on the South side should rather aim at regional integration through completion of the N. African East-West axes and through improved and expanded accessibility of major gateways.

Concerted effort is required to improve port operations, and modernise procedures and equipment in order to improve port competitiveness and reduce overall transport costs.

On the north side of the shore, the "Mediterranean" strategy of its ports passes through the improvement of their position with respect to the North of Europe. We have seen that South European ports suffer from competition from the major port-industrial complexes of the North Sea resulting in congestion of the North and dependence of the South. Apart from intermediterranean traffic,

Europe is the largest partner in world trade. 90% of this trade is effected by sea and most of it arriving or departing from a very small territory on the shores of the North Sea. The strategy therefore for maritime transport policies is to reequilibrate this traffic by improving port operations and port facilities in the South and increasing their competitiveness and by extending their hinterland to serve areas of European territory now served by the North, through integration with the TransEuropean networks and through improvement of their intermodal connections.

If for SW European ports the main aim is decentralisation, decongestion and restoring equilibrium within the territory of the European core, for the Eastern flanks of the EU the main issues that have to be faced are peripherality, marginalisation and the integration of a vast new hinterland. While for the West the problem is to provide the missing links and improve efficiency, for the East the issue is to provide basic infrastructure in a particularly deficient situation, requiring massive investments.

The issues involved are complex and multifaceted but for the purpose of this presentation we shall localise our discussion once more in our region but this time to briefly review the conditions for improving East/South traffic, involving the following subthemes:

- Traffic between Middle Europe and the Central and Eastern European Countries with the eastern Mediterranean flank of the EU, i.e. Greece, and
- Transit traffic of CEEC's as well as of the Confederation of Independent States through the Mediterranean coast.

The first is a theme of regional importance and refers to the difficulties of connecting one of Europe's isolated Mediterranean promontories with its centre, demonstrating new possibilities provided by short-sea transport. The major connection of Greece with Europe has been through the N-S axis of former Yugoslavia. Instability and crisis has disrupted this axis, as well as the other major regional axis, from Sofia to Turkey. The alternatives that were sought revealed new possibilities that had not been realised to their full extent before this crisis: short-sea transport across the Adriatic could become a competitive alternative to the N-S axis even under conditions of stability if fast and reliable ferry service, connected intermodally to the TransEuropean networks, is established. With the gradual stabilisation in the Balkans, the N-S axis will regain its importance and acquire new impetus in its new role serving inter Balkan cooperation. In fact, multiple N-S links need to be developed across the northern border. But connection through the eastern gateways would remain competitive for traffic while it would offer the additional advantage of integrating a formerly isolated part of Greece into its major national infrastructure.

The second theme has wider regional implications for Mediterranean maritime transport. As the economies of central and East European countries and the CIS expand and internationalise, their trade and exchanges will increase, not only with W. Europe, but also with the Mediterranean and the outside world. The gravity centre of Europe is expected to move eastward, especially after enlargement and bilateral accords. The implementation of N-S axes, such as

the TransEuropean Motorway, and the longer corridor 9 connecting Finland, Poland and the major Russian urban industrial complexes with the South will increase the importance of a series of southern ports from the Adriatic to the Black Sea. As the North Sea ports become congested, the Baltic Sea, the Adriatic and the Aegean ports will play a leading role as gateways to this vast hinterland. Thessaloniki is already functioning as a transit port for a wider area within the Balkan peninsula and has done so in the past, even under conditions of limited relations with the Balkans. The role of Thessaloniki as a major Balkan port had long been evident and, depending on the fluctuating political relations with the neighbours, several projects were put forward, none of which materialised. The most ambitious was proposed in 1976, and involved the creation of a Europort complex, in conjunction with the construction of the Trans European Motorway which will connect Gdansk with the Mediterranean and of an inland waterway which would link Danube to the N. Aegean via Axios River.

The implementation of the nine corridors would endow east mediterranean ports with links with the central and east European hinterland enhancing their role in intermediterranean trade. It is indicative that at the PanEuropean Transport Conference of Crete (1994) where the nine priority rail and road corridors in Central and Eastern Europe were agreed upon by the Council of Ministers, Corridor 9 was amended to extend from Plovdiv to Alexandroupolis in order to reach a Mediterranean sea front.

The role of each port on this front will vary. Deep sea ports can function as transoceanic terminals or transshipment points while smaller ports can service feeder lines and short-sea shipping extending throughout the Mediterranean and the Black Sea and beyond.

EU Policies for maritime transport.

I would like to close this contribution by discussing some aspects of European policies that are likely to affect mediterranean maritime transport in the future. Of course, the most important impacts are expected from the new Mediterranean policy of the EU and the gradual establishment of an economic zone of free exchanges. The boost of trade and aid to development may provide the impetus for new regional initiatives on both shores that will alter the present structure of exchanges.

But concentrating on sectoral EU policies with respect to the maritime sector itself, to which the Union is recently attaching increasing importance, three issues seem to be relevant to our discussion.

The first is related to European policies to promote short-sea shipping as an alternative to road transport, with the aim of reducing road congestion, improving the environment and strengthening economic and social cohesion.

Short sea transport is in general the cheapest way of transport, it is safe and environmentally friendly, and is particularly suited for the geomorphological characteristics of the European peninsula with the interweaving of land and sea

and the large number of islands. Further, short sea shipping is energy and investment efficient compared to all other means of transport and spare capacity is available.

As the construction cost of infrastructure per unit of cargo transported is lower for maritime than for road transport, an appropriate tarification policy for all different modes, reflecting both internal and external costs, would increase the attractiveness of sea transport. The Commission is actively pursuing a policy in favour of short sea shipping. This is particularly encouraging for the mediterranean transport prospects. In peripheral and third countries where terrestrial transport systems are undeveloped and in areas where there is no traffic alternative (e.g. islands, bulk, Maghreb/Europe, Adriatic) short sea shipping could be a vehicle to promote integration and cohesion.

Policies to support short sea transport are reflected in European policies with respect to ports.

The Commission considers that the Treaty's general provisions such as the freedom to provide services and competition, as well as the principle of subsidiarity, are also applicable to sea ports. This explains why policy regarding Transeuropean Networks does not cover a plan for European ports of Community interest. Instead, it can support port related investments on the merit of each project provided it is viable, i.e. it will not distort competition and will either facilitate the growth of Community trade and support the principle of sustainable mobility, especially by promoting short sea shipping, or it will improve accessibility and strengthen economic and social cohesion. To provide the basis to evaluate such projects, a group of experts has been set up to study and evaluate in each regional sea, including the Mediterranean, the current situation regarding ports and maritime transport in general.

The final issue that I would like to mention is European policy with respect to transport in the framework of the new Euromediterranean partnership.

At the Barcelona Euro-Mediterranean Conference the participants agreed on a work programme which includes transport as one of the areas of cooperation. According to this programme cooperation will focus on :

- the development of an efficient Trans-Mediterranean multimodal combined transport system
- the development of east-west land links on the southern shores, and
- the connection of Mediterranean transport networks to the Trans-European Network in order to ensure their interoperability.

In parallel a Mediterranean Waterborne Transport Working Group was set up following a Regional Conference for the Development of Maritime Transport in the Mediterranean and adopted a multiannual programme. Following these development it should be expected that maritime transport issues in the Mediterranean will get increasing attention on the part of the Union.

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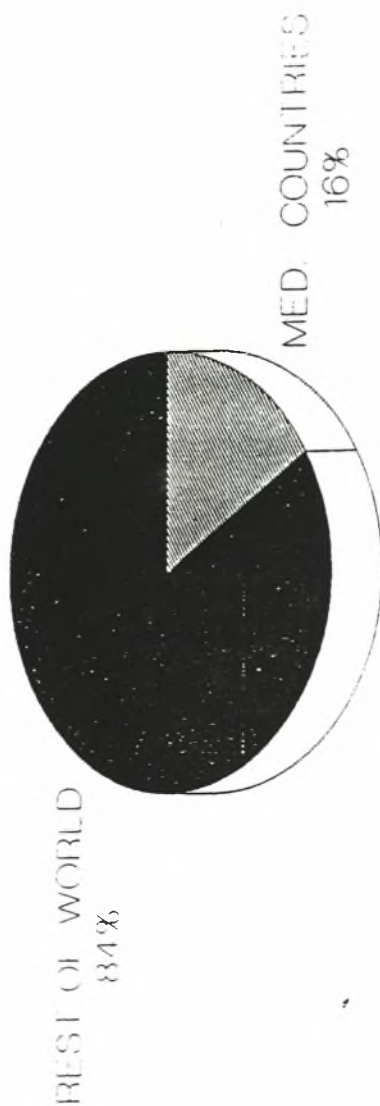
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APPENDIX

SUPPORTING MATERIAL

GOODS HANDLED BY MED. COUNTRIES

(SOURCE: STATISTICAL OFFICE OF THE U.N.)



1990 INTERNATIONAL MARITIME TRANSPORT



Total des importations de la CEE en provenance des PSEM en 1990
 et part des pays du sud de la CEE
 - hors énergie -

	MEDITERRANEE ORIENTALE(*)	MEDITERRANEE OCCIDENTALE (**)	TOTAL	%
ESPAGNE	387 866	407 757	795 623	4,84%
GRECE	248 925	37 010	285 935	1,74%
ITALIE	1 609 194	1 027 328	2 636 522	16,05%
PORTUGAL	66 247	41 586	107 833	0,66%
FRANCE MED.	202 095	426 172	628 267	3,82%
EUROPE DU SUD	2 514 327	1 939 853	4 454 180	27,11%
%	56,4%	43,6%	100,0%	
EUROPE DU NORD	8 028 335	3 945 508	11 973 843	72,89%
%	67,0%	33,0%	100,0%	
TOTAL	10 542 662	5 885 361	16 428 023	100,00%
	64,2%	35,8%	100,0%	

Sources : COMEXT + Douanes Françaises, année 1990, en milliers d'ECUs

Total des exportations de la CEE vers les PSEM en 1990
 et part des pays du sud de la CEE

	MEDITERRANEE ORIENTALE	MEDITERRANEE OCCIDENTALE	TOTAL	%
ESPAGNE	891 893	1 153 113	2 045 006	6,07%
GRECE	743 732	139 782	883 514	2,62%
ITALIE	3 483 787	3 294 443	6 778 230	20,11%
PORTUGAL	104 847	81 553	186 400	0,55%
FRANCE MED.	159 271	425 062	584 333	1,60%
EUROPE DU SUD	5 383 530	5 093 953	10 477 483	30,95%
%	51,4%	48,6%	100,0%	
EUROPE DU NORD	13 220 879	10 009 285	23 230 164	69,05%
%	56,9%	43,1%	100,0%	
TOTAL	18 604 409	15 103 238	33 707 647	100,00%
	55,2%	44,8%	100,0%	

Sources : COMEXT + Douanes Françaises, année 1990, en milliers d'ECUs

Source: EC(1993)

Exportations de la CEE par pays déclarants et partenaires - 1990
Répartition par modes de transport

		FRANCE	BELGIQUE LUX.	PAYS- BAS	ALLEM. (Ex RFA)	ITALIE	ROYAU- UNIS	DANEM.	GRECE	PORTU.	ESPA.	
AFRIQUE DU NORD (1)	TOTAL	1000 T Mio ECU	6 775 6 391	1 005 875	1 769 1 818	1 572 3 202	5 907 3 851	1 047 1 064	448 221	514 160	193 87	3 202 1 249
	Dt Mer	T	89,30%	94,50%	46,10%	41,30%	91,60%	99,30%	97,50%	99,10%	98,00%	97,80%
		ECU	65,90%	61,90%	54,10%	47,30%	69,70%	79,30%	56,60%	94,90%	80,70%	88,90%
	Dt C. Fer	T	3,60%	0,80%	42,30%	3,30%	1,10%	0,20%	0,70%	0,00%	0,30%	0,00%
		ECU	1,60%	0,60%	15,60%	2,10%	1,40%	0,30%	4,50%	0,00%	1,00%	0,10%
	Dt Route	T	5,80%	3,70%	7,20%	18,20%	6,30%	0,20%	1,60%	0,80%	1,40%	1,90%
	ECU	13,30%	26,80%	22,50%	32,60%	14,40%	0,30%	16,70%	1,90%	11,50%	2,30%	
Dt Voies Navl.	T	1,00%	0,30%	4,20%	36,20%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
	ECU	0,30%	0,20%	2,10%	7,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
PROCHE ET MOYEN ORIENT (2)	TOTAL	1000 T Mio ECU	3 779 4 512	1 569 2 381	2 343 1 955	3 202 7 090	2 946 4 129	1 898 6 764	829 571	649 255	131 70	1 793 923
	Dt Mer	T	78,90%	91,90%	51,30%	49,40%	85,50%	97,80%	92,80%	94,70%	97,10%	98,70%
		ECU	35,70%	35,10%	52,40%	37,50%	62,70%	49,80%	66,90%	85,70%	83,80%	94,40%
	Dt C. Fer	T	8,80%	1,10%	35,30%	5,40%	1,40%	0,00%	2,70%	0,00%	0,90%	0,30%
		ECU	4,30%	0,50%	8,30%	3,00%	1,60%	0,00%	6,40%	0,10%	1,40%	0,70%
	Dt Route	T	10,80%	5,20%	9,70%	19,00%	11,10%	0,30%	4,40%	5,10%	1,60%	0,90%
	ECU	16,90%	8,50%	22,90%	29,90%	21,70%	0,20%	18,30%	6,20%	5,70%	8,50%	
Dt Voies Navl.	T	1,10%	1,50%	3,10%	23,60%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
	ECU	0,50%	0,80%	1,40%	8,10%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
"AUTRES EUROPE" (3)	TOTAL	1000 T Mio ECU	2 111 1 901	770 484	1 665 850	1 364 3 875	2 527 2 369	940 1 561	93 169	1 080 282	164 79	6 364 4 223
	Dt Mer	T	73,20%	88,10%	73,00%	32,70%	82,00%	98,90%	83,30%	84,50%	87,80%	78,50%
		ECU	23,30%	48,00%	46,10%	18,50%	40,60%	84,90%	47,90%	63,60%	71,70%	77,20%
	Dt C. Fer	T	5,10%	1,10%	12,80%	8,00%	3,00%	0,00%	1,40%	0,70%	0,00%	0,10%
		ECU	2,90%	3,70%	5,20%	6,30%	2,40%	0,10%	5,00%	0,50%	0,20%	1,10%
	Dt Route	T	20,20%	6,80%	8,20%	36,10%	12,30%	0,40%	12,90%	14,30%	2,90%	21,00%
	ECU	52,20%	15,10%	38,10%	61,20%	40,20%	0,20%	30,30%	25,00%	14,80%	10,70%	
Dt Voies Navl.	T	1,30%	4,20%	5,90%	20,80%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
	ECU	0,90%	2,80%	1,90%	3,50%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
TOT. EXTRA- COMMUNAUT.	TOTAL	1000 T Mio ECU	51 357 64 587	26 060 26 524	33 921 25 221	61 675 142 750	33 954 55 881	47 901 66 366	13 000 13 327	8 809 2 286	3 881 3 435	28 269 16 259
TOT. INTRA- COMMUNAUT.	TOTAL	1000 T Mio ECU	110 952 108 502	90 611 66 166	162 138 81 918	137 067 169 616	39 176 77 891	80 288 75 199	11 267 14 395	9 210 4 043	8 529 9 470	29 953 29 948

(1) : Algérie, Egypte, Libye, Maroc, Tunisie.

(2) : Israël, Jordanie, Liban, Syrie, ...

(3) : Bahreïn, Iran, Irak, Koweït, Yémen du Nord, Oman, Qatar, Arabie Saoudite, Yémen du Sud, Émirats Arabes Unis.

(3) : Turquie, Malte, Chypre, ...

... Canaries, Andorre, Gibraltar, Valcain, Ceuta et Melilla.

NOTE : Informations non disponibles pour l'Irlande
Source EUROSTAT
AGENCE TAD

Importations de la CEE par pays déclarants et partenaires - 1990
Répartition par mode de transport

		FRANCE	BELGIQUE LUX.	PAYS- BAS	ALLEM. (Ex RFA)	ITALIE	ROYAU- UNIS	DANEM.	GRECE	PORTU.	ESPA.	
AFRIQUE DU NORD (1)	TOTAL	1000 T Mio ECU	19 017 4 676	6 877 1 085	7 268 1 288	17 869 3 497	54 815 7 934	5 968 971	210 67	3 297 344	3 216 480	15 209 2 080
	Dt Mer	T	99,00%	91,70%	71,90%	15,50%	84,00%	99,90%	97,60%	99,30%	99,80%	97,80%
		ECU	80,70%	67,40%	64,80%	16,10%	84,00%	95,50%	49,60%	97,10%	99,30%	94,20%
	Dt C. Fer	T	0,00%	0,00%	0,00%	0,10%	0,00%	0,00%	0,10%	0,00%	0,00%	0,00%
		ECU	0,00%	0,00%	0,10%	0,40%	0,10%	0,00%	0,50%	0,00%	0,10%	0,00%
	Dt Route	T	0,50%	0,80%	0,60%	0,50%	0,10%	0,00%	2,10%	0,60%	0,20%	2,20%
	ECU	9,90%	21,40%	6,90%	19,50%	1,30%	0,00%	44,60%	1,10%	0,30%	5,00%	
Dt Voies Navl.	T	0,40%	1,40%	11,20%	3,30%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
	ECU	0,30%	4,30%	10,80%	2,60%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
PROCHE ET MOYEN ORIENT (2)	TOTAL	1000 T Mio ECU	37 071 5 381	5 783 1 281	36 883 4 709	17 632 3 410	30 113 4 302	13 966 3 099	2 094 277	6 288 683	4 127 546	13 550 1 820
	Dt Mer	T	99,70%	2,90%	99,60%	7,60%	99,40%	99,50%	99,70%	99,60%	99,90%	98,40%
		ECU	89,20%	1,50%	98,00%	11,20%	94,10%	67,60%	93,00%	97,50%	98,10%	93,60%
	Dt C. Fer	T	0,10%	0,00%	0,10%	0,10%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
		ECU	0,20%	0,10%	0,40%	0,50%	0,50%	0,00%	0,40%	0,00%	0,50%	0,20%
	Dt Route	T	0,20%	1,90%	0,20%	0,90%	0,60%	0,00%	0,30%	0,00%	0,00%	1,50%
	ECU	2,50%	14,90%	1,10%	10,30%	3,10%	0,00%	2,90%	0,50%	0,10%	3,80%	
Dt Voies Navl.	T	0,00%	1,00%	0,00%	3,50%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
	ECU	0,00%	0,90%	0,10%	3,40%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
"AUTRES EUROPE" (3)	TOTAL	1000 T Mio ECU	750 910	509 286	513 456	1 176 2 895	3 730 1 363	911 1 047	63 86	348 161	162 49	2 868 1 067
	Dt Mer	T	82,30%	85,10%	79,70%	18,90%	95,30%	97,40%	86,40%	84,90%	97,10%	86,00%
		ECU	17,70%	41,70%	46,90%	5,20%	52,80%	81,60%	40,40%	58,00%	83,20%	85,90%
	Dt C. Fer	T	0,10%	0,00%	0,10%	4,30%	0,20%	0,00%	1,20%	0,60%	1,20%	0,10%
		ECU	0,10%	0,10%	0,10%	2,00%	0,90%	0,00%	0,60%	0,90%	2,50%	0,30%
	Dt Route	T	16,10%	9,50%	14,80%	43,10%	3,70%	0,20%	12,10%	14,30%	1,10%	13,70%
	ECU	43,10%	44,40%	44,20%	78,90%	26,20%	0,10%	50,90%	37,30%	11,90%	7,70%	
Dt Voies Navl.	T	0,40%	4,40%	4,20%	28,30%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
	ECU	0,00%	2,90%	0,90%	2,40%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	
TOT. EXTRA- COMMUNAUT.	TOTAL	1000 T Mio ECU	173 856 67 174	73 637 29 744	169 213 43 169	189 316 122 619	201 513 60 353	128 192 84 316	27 759 11 636	17 355 5 578	23 168 6 140	98 118 27 298
TOT. INTRA- COMMUNAUT.	TOTAL	1000 T Mio ECU	109 484 124 223	113 700 66 610	114 328 63 694	185 141 145 702	64 750 81 642	60 807 89 384	10 688 13 677	6 169 9 984	9 746 13 674	28 836 38 914

(1) : Algérie, Egypte, Libye, Maroc, Tunisie.

(2) : Israël, Jordanie, Liban, Syrie, ...

(3) : Bahreïn, Iran, Irak, Koweït, Yémen du Nord, Oman, Qatar, Arabie Saoudite, Yémen du Sud, Émirats Arabes Unis.

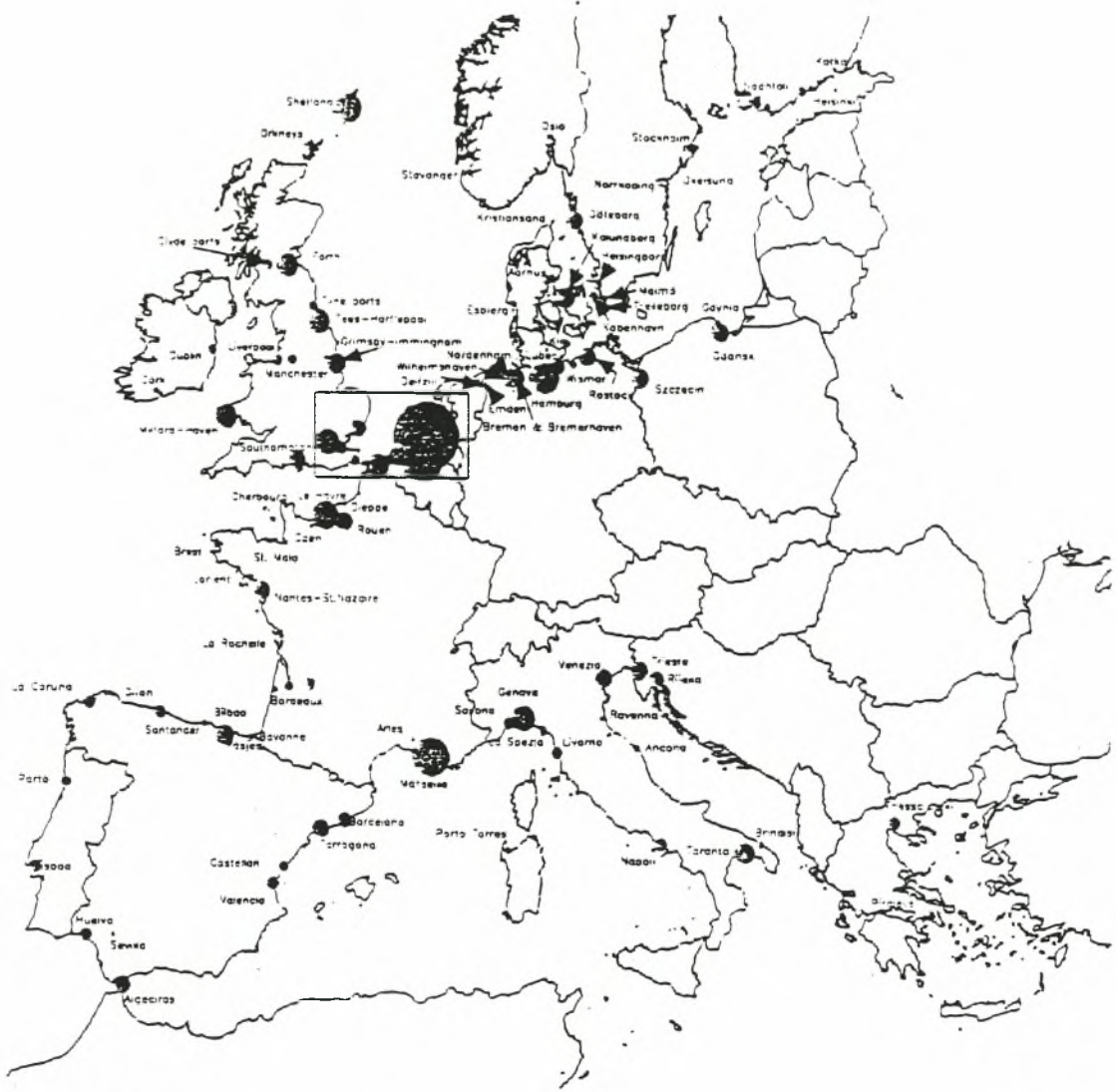
(3) : Turquie, Malte, Chypre, ...

... Canaries, Andorre, Gibraltar, Valcain, Ceuta et Melilla.

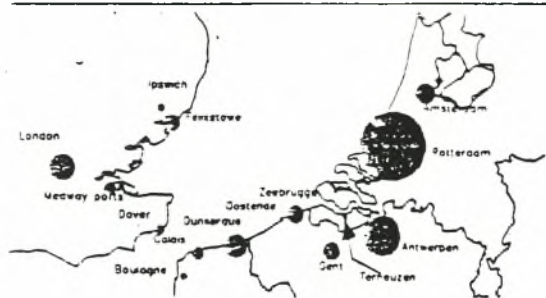
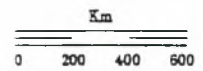
NOTE : Informations non disponibles pour l'Irlande
Source EUROSTAT
AGENCE TAD

Source: EC(1993)

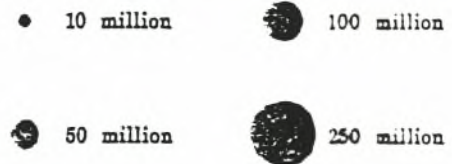
Major ports and freight volume, 1988



Source : IBFK, 1990

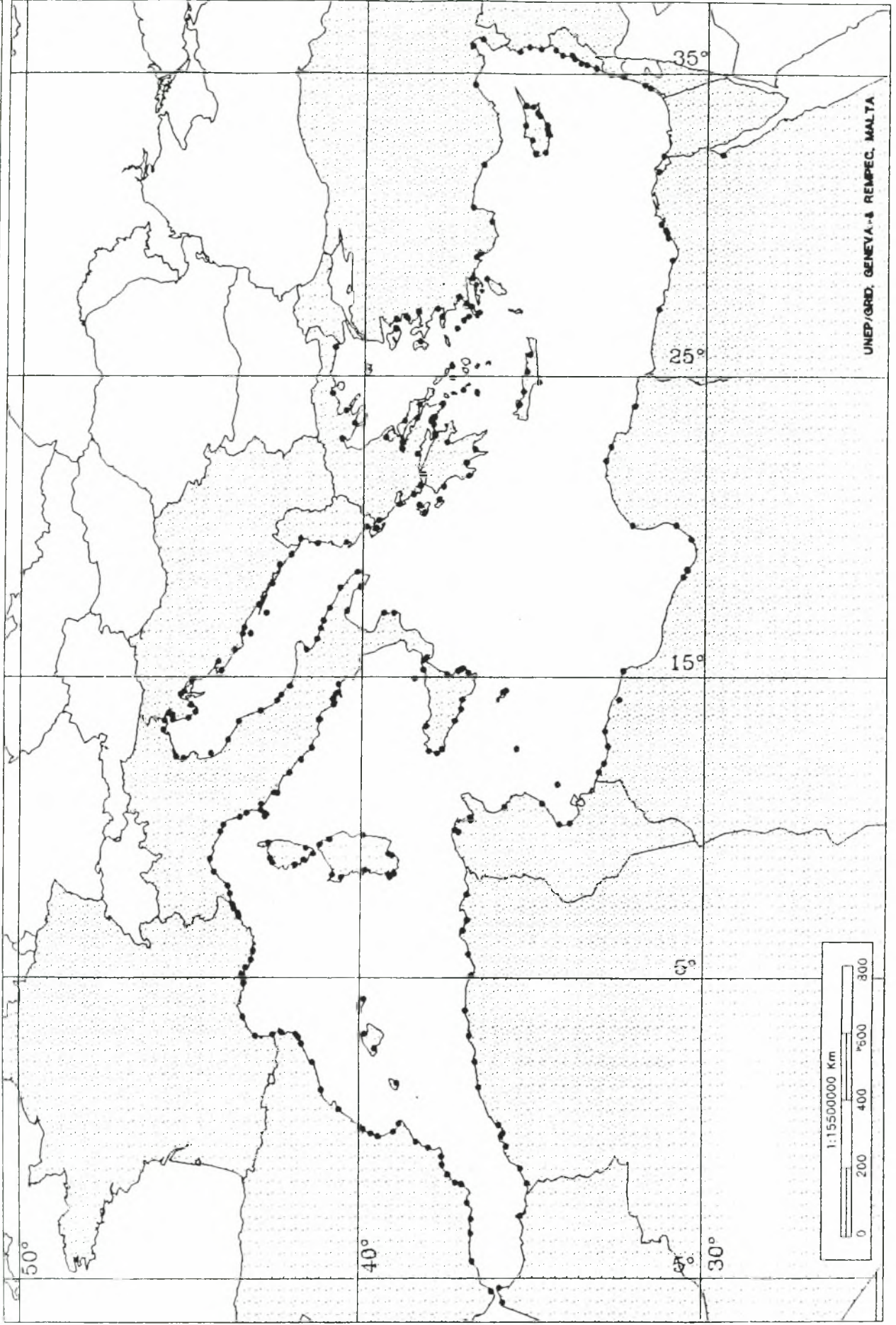


Volume of sea-borne goods (tonnes)

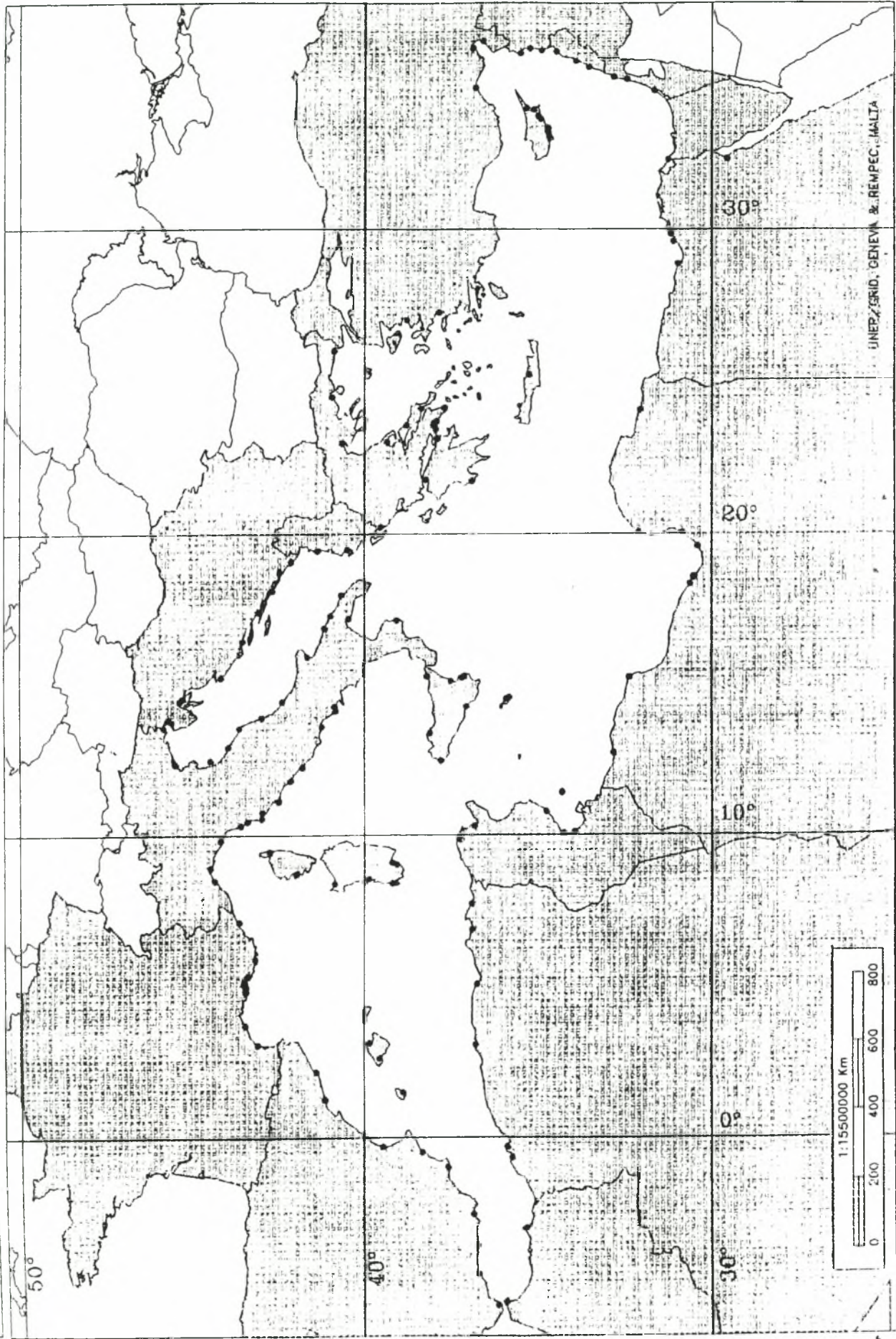


Source: Europe 2000

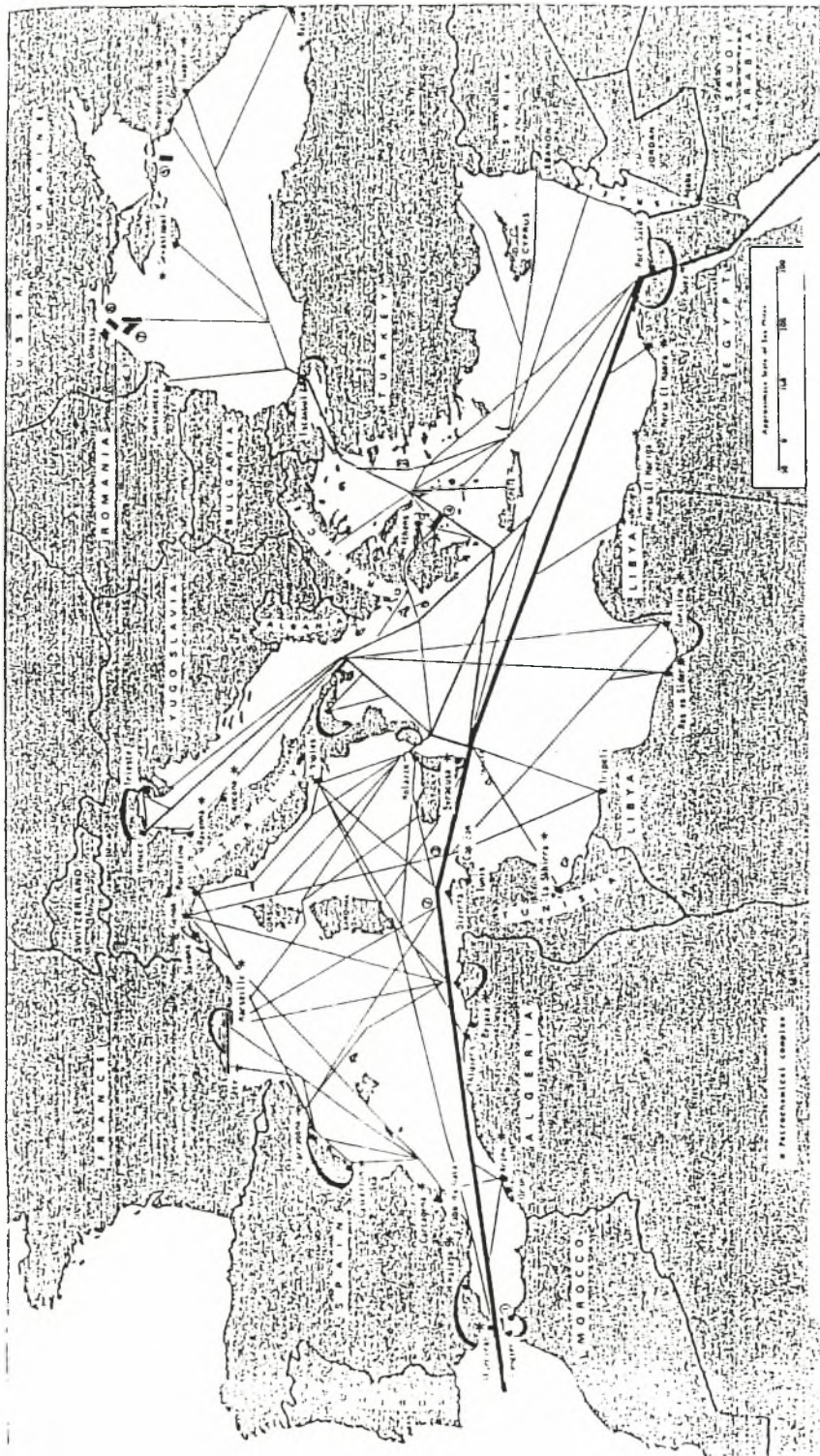
MEDITERRANEAN PORTS



Mediterranean Ports with Oil Terminals

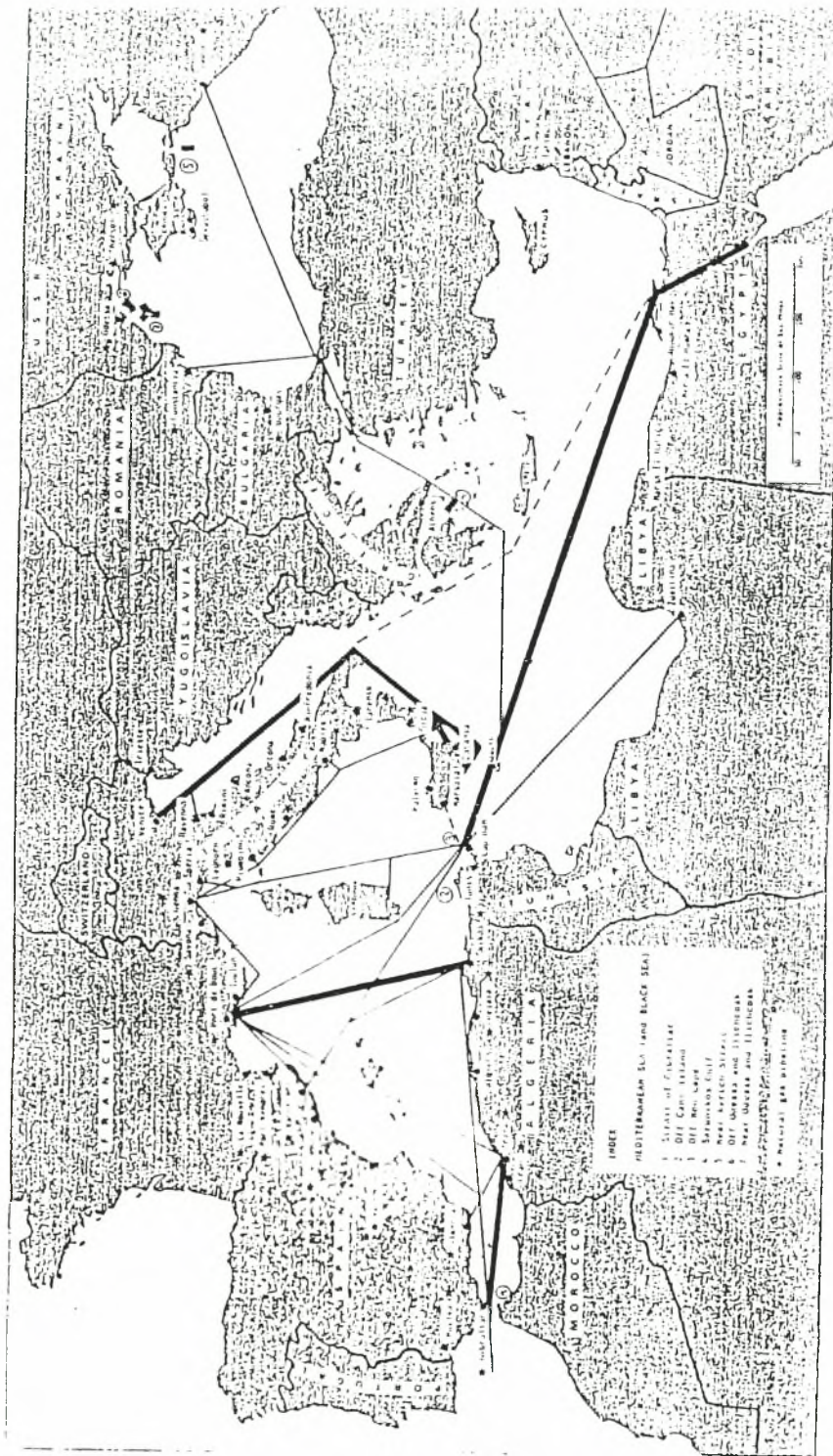


Inventory of major maritime routes in the Mediterranean associated with coastal petrochemical complexes

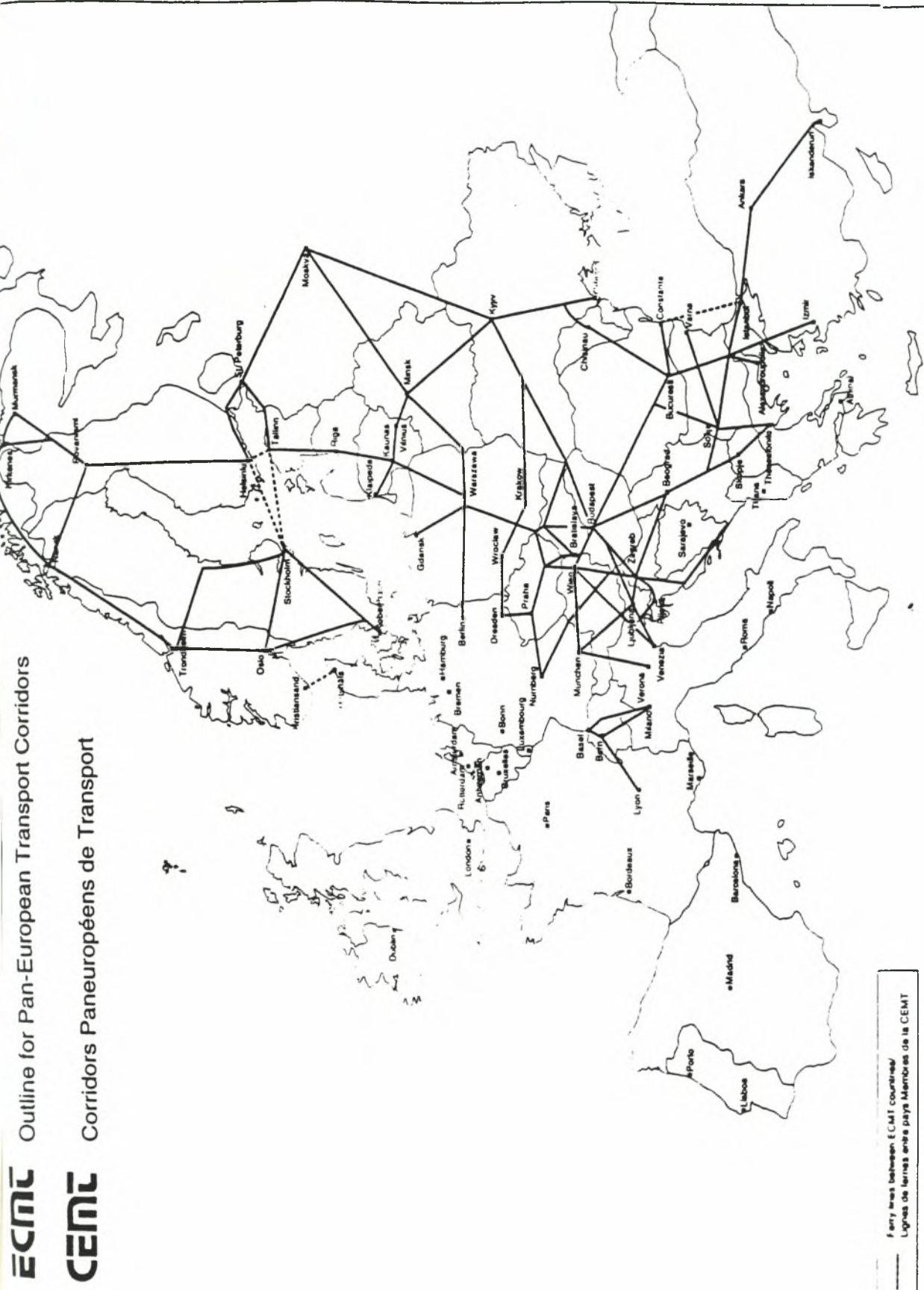


Source: REMPEC(1992)

Main routes of LPG/LNG carriers in the Mediterranean

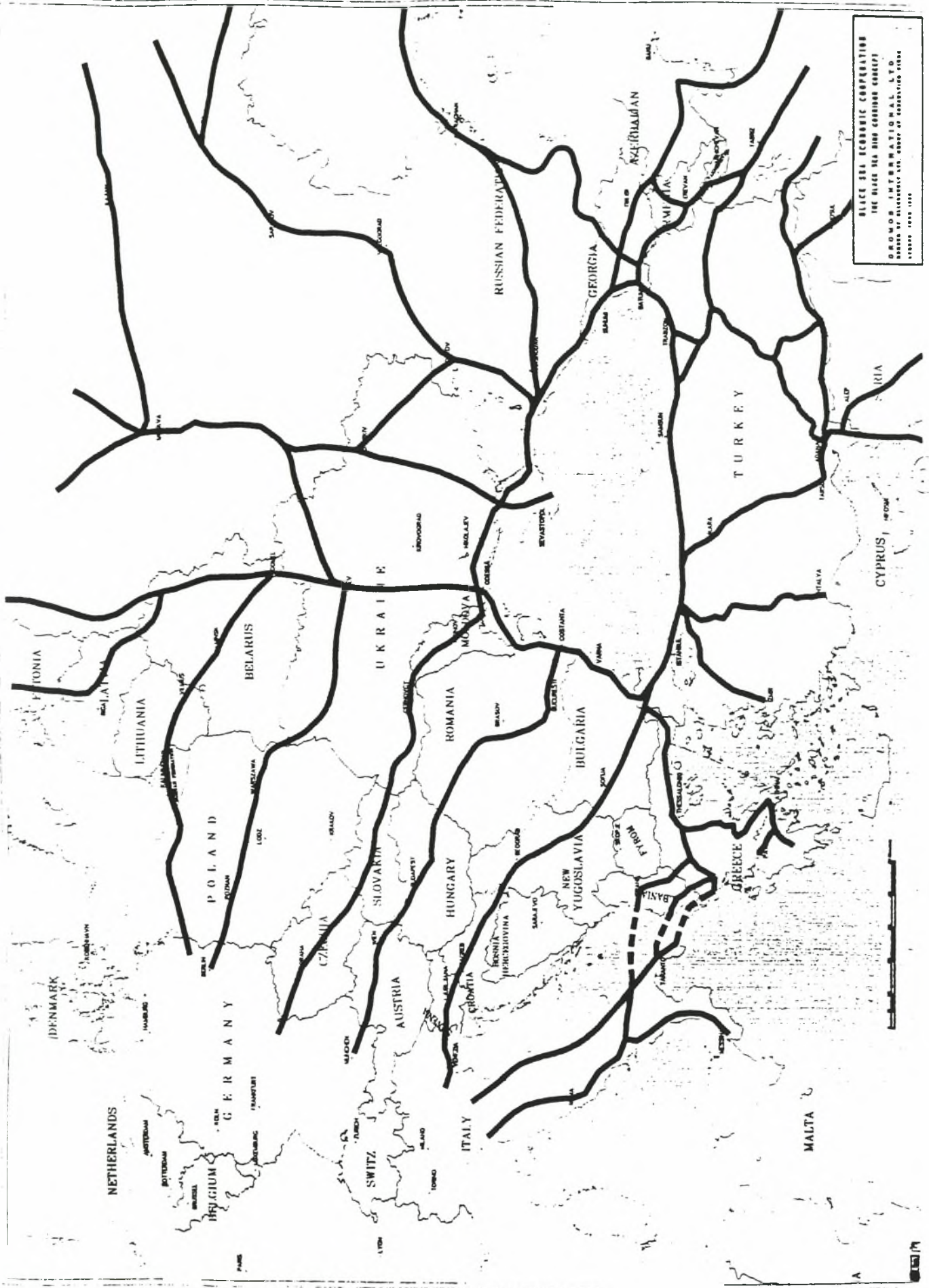


Source: REMPEC(1992)



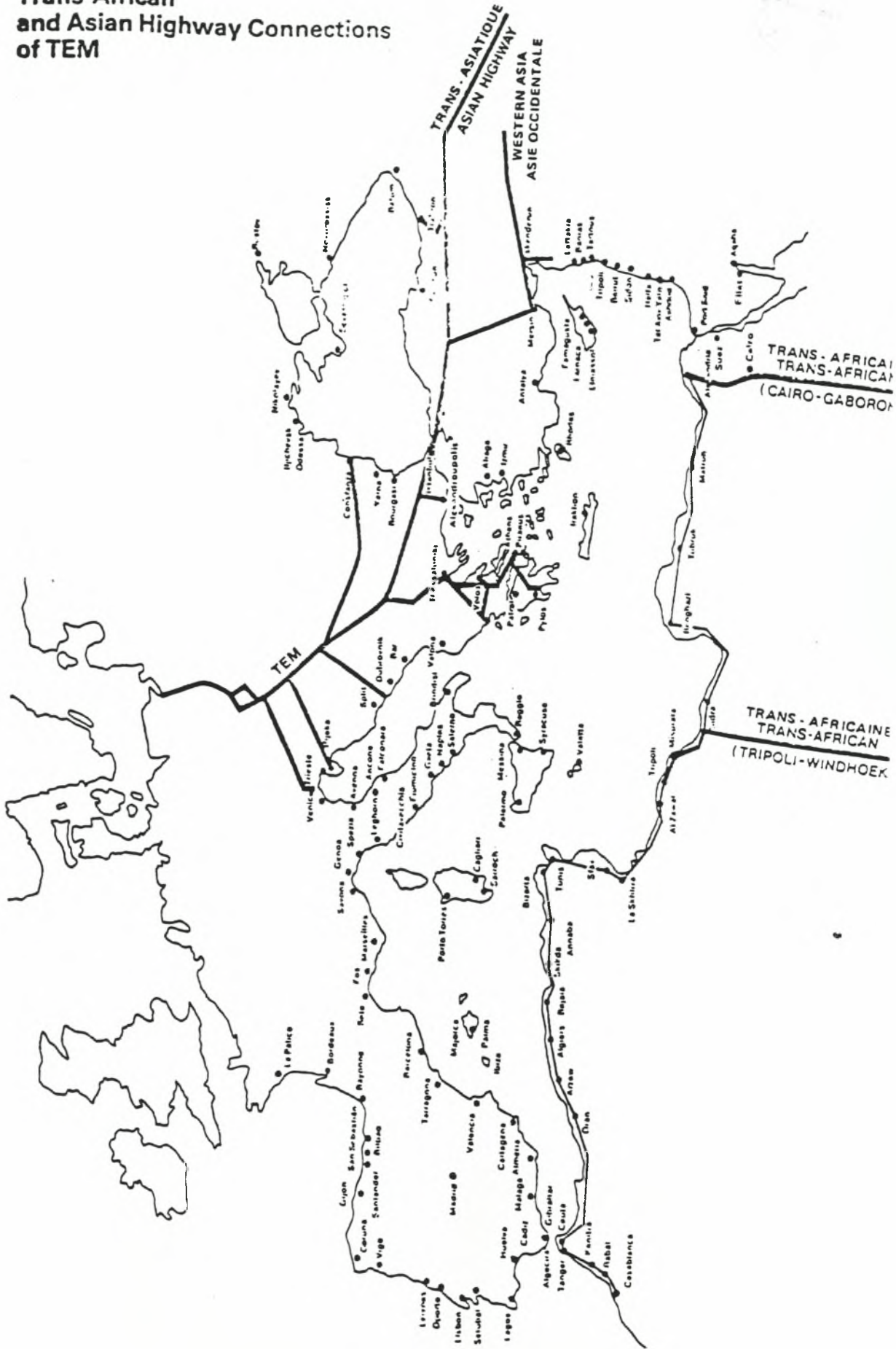
Ferry lines between ECMT countries/
Lignes de ferries entre pays Membres de la CEMT

THE BLACK SEA RING CORRIDOR CONCEPT




BLACK SEA ECONOMIC COOPERATION
THE BLACK SEA RING CORRIDOR CONCEPT
DROMOS INTERNATIONAL LTD
BASED ON ILLUSTRATION OF CONCEPTUAL STUDY
1999 - 2000

Trans-African and Asian Highway Connections of TEM





ΠΑΝΕΠΙΣΤΗΜΙΟ
ΘΕΣΣΑΛΙΑΣ



004000072385

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