



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 04.09.1996  
COM(96) 388 final

**ANNUAL REPORT OF THE COHESION FUND**

**1995**

---

**ANNEX 1 - SPAIN - TRANSPORT**

Due to the excessive length of this report, it has been broken down into sections:

Report, pages 1-99

Annex 1 - Main Points of the Decisions approved in 1995

Spain - Environment pp. 100-310

Spain - Transport pp. 311-356

Portugal - Environment pp. 357-407

Portugal - Transport pp. 408-413

Greece - Environment pp. 414-478

Greece - Transport pp. 479-504

Ireland - Environment pp. 505-532

Ireland - Transport 523-559

Annex 2 - Tables and Graphs pp. 560-571

Annex 3 - Maps of the roads and railway networks pp. 572-580

**SPAIN**  
**TRANSPORT**

**Publication of main points of decisions to grant financial assistance under Regulation  
(EC) No 1164/94 establishing a Cohesion Fund**

Project No 94/11/65/002

**1. TITLE**

Rías Bajas expressway (Orense - Porriño section)

**2. AUTHORITY RESPONSIBLE FOR THE APPLICATION**

2.1. Name: Dirección General de Planificación

2.2. Address: Paseo de la Castellana, 162, 28071 Madrid

**3. AUTHORITY RESPONSIBLE FOR IMPLEMENTATION:**

3.1. Name: Dirección-General de Carreteras

3.2. Address: Paseo de la Castellana 67, Madrid

**4. LOCATION:**

4.1. Member State: Spain

4.2. Region: Madrid

**5. DESCRIPTION**

The project involves the upgrading to motorway of about 59.8 km of the present N-120 between Orense and Battallanes.

The standard profile is two 7 m wide carriageways with outside shoulders of 2.5 m, internal shoulders of 1 m and a central reservation 11 m wide.

The project has been divided into four sections:

- Orense-Barbantes (about 13.6 km): 3 junctions (Orense north, Miño south and Miño north), 5 viaducts, 3 overpasses and 10 underpasses; purchase of land
- Barbantes-Melón (about 21.7 km): 2 viaducts (two spans over the river Abía and nine spans over the river Brull), 7 overpasses and 21 underpasses; purchase of land
- Melón-La Cañiza (about 9.1 km): works and purchase of land

- La Cañiza-Batallanes (about 15.5 km): two twin tunnels 3 km long, a prestressed concrete bridge with two spans of 186 m hung by rods from a tower 184 m high, 6 overpasses and 11 underpasses; purchase of land.

## 6. OBJECTIVES

To improve currently difficult access to a particularly remote area. On a scale of 1 to 7, access is at present poor (6-7), completion of the project will raise it to 5.

To improve communications within Galicia and improve traffic flow. Average traffic speed will increase from 75 kph for light vehicles and 61 kph for heavy vehicles to 108 kph and 81 kph respectively. It is estimated that light vehicles will save 25 minutes and heavy vehicles 26 minutes.

To extend the motorway network.

## SCHEDULE

	Start	Finish
Design of project	1 January 1993	31 December 1993
Purchase of land	15 October 1993	30 June 1997
Main works	24 September 1993	30 June 1997
Operational phase	30 June 1997	

## 8. COST-BENEFIT ANALYSIS

Analysis of the return offered by this project reflects its importance

The main indicators used in the study are: updating rate: 6%; life of motorway: 30 years; traffic load: 12 540 vehicles per day in 1997, projected to increase at a compound rate of 2.03% per year; ratio of light to heavy vehicles: 82/18.

The costs reflect actual resources consumed throughout the useful life of the project: investment cost and costs of restoration and maintenance of the five sections.

The benefits are derived from changes in the general cost of transport in a given situation: operating costs, costs of journey times and cost of accidents.

The economic internal rate of return is 9.7%.

The current net value is ECU 165 million.

The current ratio of benefits to costs is 1.5.

The result shows that completion of this infrastructure is desirable.

## 9. CONTRIBUTION TO TRANS-EUROPEAN NETWORKS

The Orense-Porriño project forms part of the Benavente-Porriño motorway, which is one of the missing links in the trans-European network and which will introduce balance into the national road network and connect Galicia and northern Portugal to the Irún-Valladolid route.

## 10. TOTAL COST (in ecus)

Total cost	ECU 251 234 852
Cost eligible for grant (after 23 February 1994)	ECU 250 398 846
Percentage assistance	85
Cohesion Fund assistance	ECU 212 839 017

**Publication of main points of decisions to grant financial assistance under  
Regulation (EC) No 1164/94 establishing a Cohesion Fund**

ANNEX I

**INFORMATION SHEET**

Summary of project

No 94.11.65.005

**1. Title:**

Somport Tunnel

**2. Body responsible for the application**

2.1. Name: Dirección General de Planificación

2.2. Address: Paseo de la Castellana 162 - 28071 Madrid

**3. Authority responsible for implementation**

3.1. Name: Dirección General de Carreteras

3.2. Address: Paseo de la Castellana 67 - 28071 Madrid

**4. Location**

4.1. Member State: Spain

4.2. Region: Aragón (Huesca)

**5. Description**

Construction (without fittings) of a tunnel 8 597 m long, of which 5 850 m are in Spain.

The tunnel continues the N-330 highway from Huesca to Somport and the RN 134 in France.

The tunnel will run close to the tunnel on the Urdoz-Canfranc railway line, from which it will be separated by about 70 m at the closest points.

The width between sidewalks will be 9 m:

- two traffic lanes 3.5 m wide,
- two hard shoulders 0.5 m wide,
- a central reservation 1 m wide.

6. Aims

To improve communications with France, providing an additional alternative to the international routes through Irún and La Junquera.

The Valencia-Somport-Paris route is shorter than the Valencia-Barcelona-La Junquera-Paris route. Travelling times will be reduced once the Somport-Sagunto section of the trans-European road network has been built.

Accessibility currently ranks at 5 on a scale of 7 to 1. Once this project is completed, it will be improved to 3.

7. Work schedule

Category of work	Commencement	Completion
Preparation of project		1992
Purchase of land	30.6.1993	31.12.1997
Main work	4.1.1994	31.12.1998
Operational phase		

8. Assessment of costs and socio-economic advantages

The main indicators used:

- discount rate 5%
- working life of road: 30 years
- ADT (1998)
  - Scenario (a):  
5 000 vehicles/day, with a projected annual increase of 3.03%.
  - Scenario (b):  
4 282 vehicles/day, with an annual increase of 2.03%
- Proportion of light to heavy vehicles: 92.8

Results:

- for (a):
  - IRR: 4.4%
  - net present value: ECU -5.9 million
  - Cost-benefit ratio: 0.92
- for (b):
  - IRR: 2.5%
  - net present value: ECU -22.5 million
  - Cost-benefit ratio: 0.70

9. Physical indicators

- Earth moved (m<sup>3</sup>)
- Metres of tunnel cut
- Concrete lining
- Bolts (tonnes)
- Shuttering and reinforcing mesh

10. Cost and assistance (in ecus)  
(ECU 1 = ptas 165.197)

(1 ecu = 165 197 ptas)

	Total cost	Expenditure incurred before the date of submission	Eligible cost
Purchase of land	587 784	27 847	559 937
Buildings and construction	91 191 728	-	91 191 728
Machinery and equipment*	15 216 983	15 216 983	
Other	3 315 435		3 315 435
<b>Total</b>	<b>110 311 930</b>	<b>15 244 830</b>	<b>95 067 100</b>

\*Part financed under Regulation (EEC) No 3359/90

Total eligible cost:	95 067 100
Rate of assistance:	85%
Cohesion Fund assistance:	80 807 033



**Publication of main points of decisions to grant financial assistance under Regulation  
(EC) No 1164/94 establishing a Cohesion Fund**

ANNEX I

SUMMARY

Summary of the project

No: 95.11.65.001

**1. Title**

Bajo Llobregat expressway

**2. Body responsible for the application**

- 2.1. Name: Dirección General de Planificación (M.E.H.)
- 2.2. Address: Paseo de la Castellana 162, 28071 Madrid

**3. Authority responsible for implementation**

- 2.1. Name: Dirección General de Carreteras (M.O.P.T.M.A.)
- 2.2. Address: Paseo de la Castellana 672, 28071 Madrid

**4. Location**

- 4.1. Member State: Spain
- 4.2. Region: Catalonia

**5. Description**

The project constitutes a bypass on the N-II between Martorell and the coastal ring road.

The expressway will be 18.2 km long and have an average cross-section of two carriageways of 10.5 m with outside shoulders of 2.5 m and inside shoulders of 1 m.

The width of the central reservation will vary but not be less than 1.5 m.

The pavement will comprise 30 cm of hot-rolled bituminous mix over 20 cm of soil-cement.

A section of the Llobregat will be canalized and the section includes a large number of structures, including six viaducts.

There will also be two tunnels, one 320 m long (N-II) and the other 675 m long (railway), and a crossing below the A-2.

The work also includes supplies, drainage, grouting, electric and telephone lines, gas pipelines, etc.

#### 6. Aims

To achieve a substantial saving in money terms and cause the least possible disruption to the landscape by combining in a single project the bypass of the Martorell-Barcelona section of the N-II and flood prevention work on the right bank of ten Llobregat to prevent flooding between Martorell and Sant Vicenç dels Horts.

Using the coastal ring road, to provide access to southern Barcelona from Madrid and Zaragoza.

To relieve traffic congestion on the Molins-Barcelona section of the A-2 and remove eight dangerous crossings on the N-II, so improving living conditions for the population of the Baix Llobregat.

The saving in journey times is estimated at 14 minutes for light vehicles, whose average speed will increase from 42 kph to 100 kph, and 16.5 minutes for heavy vehicles, whose average speed will increase from 35 kph to 81 kph. The distance by expressway will be 18.2 km, as compared with 17.5 km on the N-II.

#### 7. Work schedule

Type of work	Start	End
Planning of project	11 February 1992	30 November 1993
Purchase of land	1 January 1995	31 December 1998
Main works	April 1995	31 December 1998
Operational	31 December 1998	

#### 8. Assessment of costs and socio-economic advantages

The main indicators used are

- service life of project: 30 years
- traffic density: 34 380 vehicles per day in 1998 with a projected annual increase of 2.03%

light/heavy vehicles: 87/13

The costs reflect the actual resources consumed throughout the useful life of the project: investment costs and restoration and conservation work.

The benefits are based on the change in general transport costs: operating costs, journey costs and accident costs.

Results (discount rate: 5%)

- internal rate of return: 21.5%
- current value: ECU 440 million
- cost/benefit ratio: 4.4

The results of this analysis demonstrate the economic utility of carrying out this project.

#### 9. Environmental impact assessment

An environmental impact assessment as required by Community directives was carried out before the project was implemented.

The expected cost of corrective measures, which is included in the cost of the project, is ECU 8.5 million.

#### 10. Cost and assistance (in ecus) (ECU 1 = PTA 162.356)

	Total costs	Eligible costs
Purchase of land	11 271 526	11 271 526
Buildings and construction	131 459 878	131 459 878
Contingencies and price adjustments	7 391 164	7 391 164
Other (monitoring and supervision)	2 716 253	2 716 253
<b>Total</b>	<b>152 838 821</b>	<b>152 838 821</b>

Total eligible cost: ECU 152 838 821  
Percentage aid from the Cohesion Fund: 85%  
Cohesion Fund aid: ECU 129 912 996

**Publication of main points of decisions to grant financial assistance under  
Regulation (EC) No 1164/94 establishing a Cohesion Fund**

ANNEX I

**INFORMATION SHEET**

Summary of project

No 95.11.65.002

**1. Title**

Zaragoza-Huesca dual carriageway (Villanueva de Gállego-Huesca section).

**2. Body responsible for the application**

- 2.1. Name: Dirección General de Planificación (MEH)
- 2.2. Address: Paseo de la Castellana 162 - 28071 Madrid

**3. Authority responsible for implementation**

- 3.1. Name: Dirección General de Carreteras (MOPTMA)
- 3.2. Address: Paseo de la Castellana 67 - 28071 Madrid

**4. Location**

- 4.1. Member State: Spain
- 4.2. Region: Aragon

**5. Description**

The Zaragoza-Huesca dual carriageway will provide an alternative to the N-330 and form part of the dual carriageway from Alicante to France via Zaragoza. This road will provide a third route into France via the Somport tunnel, the other two being via Irún and La Junquera.

The work for which funding is requested will involve the construction of three sections of dual carriageway. The typical section will consist of two 7 m carriageways, with hard shoulders 2.5 m wide outside and 1 m wide inside. The central reservation will be 12 m wide, except over the initial stretch where it will be 8 m wide. Drains will be laid, signalling installed and trees and shrubs planted.

The road will be surfaced with 25 cm of hot bituminous mix in three layers on a 25 cm artificial aggregate base.

- Villanueva de Gállego (South) - Zuera (North): 17.045 km.

Construction of seven overpasses, a viaduct, a bridge over the River Gállego and 13 underpasses. The roadways of 11 of these structures will be of pre-stressed concrete slabs or beams. The remaining eleven (underpasses) will have reinforced concrete frames.

- Zuera-Almudévar: 22.179 km.

Construction of 23 structures: bridges with pre-stressed concrete roadways, reinforced concrete frames, pergola bridges.

- Almudévar-Huesca: 21.67 km.

Construction of four overpasses of various spans with roadways of pre-stressed concrete, one bridge over the Monegros Canal (mixed steel and concrete structure), 16 underpasses and various retaining walls.

## 6. Aims

To improve communications within the Community of Aragon by connecting two important industrial and tourist centres.

To provide for the future connection of the east-coast region with France.

To provide a third access route from the rest of Europe to the centre, east and south of the peninsular.

To increase the maximum speed for light vehicles from 80 km/h to 120 km/h and for heavy vehicles from 57 km/h to 90 km/h.

## 7. Work schedule

Category of work	Commencement	Completion
Preparation of project	1.9.1993	1.2.1995
Purchase of land	17.11.1994	1.10.1996
Main work	1.10.1995	31.12.1998

## 8. Assessment of costs and socio-economic advantages

Main indicators used:

- Working life of road: 30 years
- ADT: 7 970 vehicles

- Proportion of light to heavy vehicles: 85/15

The costs include the actual resources consumed during the working life of the road: investment, repair and maintenance costs.

The advantages are the reduction in general transport costs: reductions in operating costs and travelling times and in the cost of accidents.

Summary (discount rate 6%):

- Internal rate of return: 8.7%  
- Net value: ECU 40 million  
- Cost-effectiveness ratio: 1.354

9. Environmental impact assessment

An environmental impact assessment was carried out in accordance with Community rules before work began.

The estimated cost of the corrective measures required, included in the cost of the project, is ECU 1.5 million for the two sections for which contracts have been awarded.

10. Cost and assistance (in ecus)  
(ECU 1 = PTA 162.323)

	Total cost	Eligible cost
Purchase of land	4 304 997	4 250 783
Buildings and construction	113 333 292	113 333 292
Other (security, hygiene, inspection)	4 251 400	4 251 400
<b>TOTAL</b>	<b>121 889 689</b>	<b>121 835 475</b>

Total eligible cost: 121 835 475  
Rate of assistance: 85%  
Cohesion Fund assistance: 103 560 152

**Publication of main points of decisions to grant financial assistance under  
Regulation (EC) No 1164/94 establishing a Cohesion Fund**

ANNEX I

**INFORMATION SHEET**

Summary of project

No 95.11.65.002

**1. Title**

Zaragoza-Huesca dual carriageway (Villanueva de Gállego-Huesca section).

**2. Body responsible for the application**

- 2.1. Name: Dirección General de Planificación (MEH)
- 2.2. Address: Paseo de la Castellana 162 - 28071 Madrid

**3. Authority responsible for implementation**

- 3.1. Name: Dirección General de Carreteras (MOPTMA)
- 3.2. Address: Paseo de la Castellana 67 - 28071 Madrid

**4. Location**

- 4.1. Member State: Spain
- 4.2. Región: Aragón

**5. Description**

The Zaragoza-Huesca dual carriageway will provide an alternative to the N-330 and form part of the dual carriageway from Alicante to France via Zaragoza. This road will provide a third route into France via the Somport tunnel, the other two being via Irún and La Junquera.

The work for which funding is requested will involve the construction of three sections of dual carriageway. The typical section will consist of two 7 m carriageways, with hard shoulders 2.5 m wide outside and 1 m wide inside. The central reservation will be 12 m wide, except over the initial stretch where it will be 8 m wide. Drains will be laid, signalling installed and trees and shrubs planted.

The road will be surfaced with 25 cm of hot bituminous mix in three layers on a 25 cm artificial aggregate base.

- Villanueva de Gállego (South) - Zuera (North): 17.045 km.

Construction of seven overpasses, a viaduct, a bridge over the River Gállego and 13 underpasses. The roadways of 11 of these structures will be of pre-stressed concrete slabs or beams. The remaining eleven (underpasses) will have reinforced concrete frames.

- Zuera-Almudévar: 22.179 km.

Construction of 23 structures: bridges with pre-stressed concrete roadways, reinforced concrete frames, pergola bridges.

- Almudévar-Huesca: 21.67 km.

Construction of four overpasses of various spans with roadways of pre-stressed concrete, one bridge over the Monegros Canal (mixed steel and concrete structure), 16 underpasses and various retaining walls.

## 6. Aims

To improve communications within the Community of Aragon by connecting two important industrial and tourist centres.

To provide for the future connection of the east-coast region with France.

To provide a third access route from the rest of Europe to the centre, east and south of the peninsular.

To increase the maximum speed for light vehicles from 80 km/h to 120 km/h and for heavy vehicles from 57 km/h to 90 km/h.

### Work schedule

Category of work	Commencement	Completion
Preparation of project	1.9.1993	1.2.1995
Purchase of land	17.11.1994	1.10.1996
Main work	1.10.1995	31.12.1998

## 8. Assessment of costs and socio-economic advantages

Main indicators used:

- Working life of road: 30 years
- ADT: 7 970 vehicles



- Proportion of light to heavy vehicles: 85/15

The costs include the actual resources consumed during the working life of the road: investment, repair and maintenance costs.

The advantages are the reduction in general transport costs: reductions in operating costs and travelling times and in the cost of accidents.

Summary (discount rate 6%):

- Internal rate of return: 8.7%
- Net value: ECU 40 million
- Cost-effectiveness ratio: 1.354

#### 9. Environmental impact assessment

An environmental impact assessment was carried out in accordance with Community rules before work began.

The estimated cost of the corrective measures required, included in the cost of the project, is ECU 1.5 million for the two sections for which contracts have been awarded.

#### 10. Cost and assistance (in ecus) (ECU 1 = PTA 162.323)

	Total cost	Eligible cost
Purchase of land	4 304 997	4 250 783
Buildings and construction	113 333 292	113 333 292
Other (security, hygiene, inspection)	4 251 400	4 251 400
<b>TOTAL</b>	<b>121 889 689</b>	<b>121 835 475</b>

Total eligible cost: 121 835 475  
 Rate of assistance: 85%  
 Cohesion Fund assistance: 103 560 152

**Publication of main points of decisions to grant financial assistance under  
Regulation (EC) No 1164/94 establishing a Cohesion Fund**

ANNEX I

**INFORMATION SHEET**

Summary of project

No 95/11/65/003

**1. Title:**

Madrid-Valencia expressway  
Motilla del Palancar-Minglanilla section

**2. Body responsible for the application**

- 2.1. Name: Dirección General de Planificación (MEH)
- 2.2. Address: Paseo de la Castellana 162 - 28071 Madrid

**3. Authority responsible for implementation**

- 3.1. Name: Dirección General de Carreteras (M.O.P.T.M.A.)
- 3.2. Address: Paseo de la Castellana 67 - 28071 Madrid

**4. Location**

- 4.1. Member State: Spain
- 4.2. Region: Castile-La Mancha

**5. Description**

The Motilla del Palancar-Minglanilla section is part of the expressway from Madrid to Valencia which will be completed with the sections from Atalaya del Cañavete to Motilla del Palancar and Minglanilla to Candete de las Fuentes.

This project involves the construction of a 27.3 km stretch of expressway. The typical section will consist of two 7 m carriageways with hard shoulders 2.5 m wide outside and 1 m wide inside. The central reservation will be 12 m wide. The paving and surfacing will consist of a 30 cm layer of hot bituminous mix on top of 20 cm of artificial aggregate. Five viaducts and 14 crossings will be built, most with decks of prestressed concrete. Most of the bridges will have three or four spans. One will have six.

Four interchanges are planned:

- Motilla del Palancar
- Castillejo de Iniesta
- Granja de Iniesta
- Minglanilla.

This section runs through the following municipalities: Motilla del Palancar, El Peral, Iniesta, Castillejo de Iniesta, Granja de Iniesta and Minglanilla.

**6. Aims**

To eliminate the traffic bottleneck which now occurs.

To complete the expressway network in accordance with the trans-European road network as included in the master plan for infrastructures (PDI).

To connect the cities of Madrid and Valencia by means of a high capacity, high quality expressway.

To improve the traffic flow: the current speed of light and heavy vehicles is around 80 and 65 km/h respectively. Once this project is completed speeds will increase to 120 and 90 km/h respectively. The journey time will be reduced by 8 minutes for light vehicles and by 12 minutes for heavy vehicles.

**7. Work schedule**

Category of work	Commencement	Completion
Preparation of project	30.12.1992	15.1.1994
Purchase of land	1.6.1991	31.12.1996
Main work	31.12.1994	13.6.1997
Operative phase		13.6.1997

**8. Assessment of costs and socio-economic advantages**

Main indicators used:

- Working life of road: 30 years
- ADT (1997): 8 922 vehicles
- Proportion of light to heavy vehicles: 70/30

The costs include the actual resources consumed during the working life of the road: investment, repair and maintenance costs.

The advantages are the reduction in general transport costs: reductions in operating costs and travelling times and in the cost of accidents.

Summary (discount rate 6%):

- Internal economic rate of return:	15.45%
- Updated net value:	ECU 44.6 million
- Updated cost-effectiveness ratio:	2.174

The work will create 1 155 direct and 443 indirect jobs.

#### 9. Environmental impact assessment

An environmental impact assessment was carried out before work began in accordance with Community Directive 85/337/EEC.

An estimated 4.6% of the total cost will be devoted to measures to protect the environment and to correct the project's impact on it.

#### 10. Cost and assistance (in ecus) (ECU 1 = PTA 161.225)

	Total cost	Eligible cost
Purchase of land	2 046 829	1 303 147
Building and construction	38 412 157	38 381 144
Other (technical assistance, safety, health)	1 200 806	1 200 806
Total	41 659 792	40 885 097

Total eligible cost:	40 885 097
Rate of assistance:	85%
Adhesion Fund assistance:	34 752 330

**Publication of main points of decisions to grant financial assistance under  
Regulation (EC) No 1164/94 establishing a Cohesion Fund**

ANNEX I

INFORMATION SHEET

Summary of project

No 95.11.65.005

1. **Title**

Mediterranean Corridor (upgrading to 200/220 km/h) Phase III.

2. **Body responsible for the application**

2.1. Name: Dirección General de Planificación (MEH)

2.2. Address: Paseo de la Castellana 162 - 28071 Madrid

3. **Authority responsible for implementation**

3.1. Name: Dirección General de Infraestructuras del Transporte Ferroviario  
(MOPTMA)

3.2. Address:

4. **Location**

4.1. Member State: Spain

4.2. Region: Comunidad de Valencia, Catalonia

5. **Description**

The work covered by this project complements that approved in Commission Decisions C(93) 3592/1 of 10 December 1993 and C(94) 3757/5 of 21 December 1994 and is to be carried out on the Encina-Barcelona section

- **Fuente la Higuera-Játiva section**

Installation of equipment for controlling traffic on the line (signalling, safety and telecommunications systems, etc.). The equipment will be remotely operated from a central point on the line and will permit trains to run perfectly safely and efficiently at 220 km/h. The section is 42 km long.

- **Castellón-Las Palmas section**

- The section is 9.5 km long. Along 4.9 km, the work will involve widening the bed to permit doubling of the track at a later date. On the remaining 4.6 km, which runs through an urban area, a by-pass line will be constructed, the greater part of it under ground. The roads above the tunnel will be repositioned and temporary diversions provided for road traffic.

- **Las Palmas-Oropesa**

Installation of track infrastructure from km 77 to km 90.225. Other work: construction of four tunnels (3 230 m), four tunnels built using the cut and cover method (668 m), 17 viaducts, 11 arches, a footbridge and a halt.

- **Alcanar-Ametlla**

Definition and execution of the work necessary for installing a double-track automatic block and new interlocks in stations (safety and communications equipment, ground-train systems, power supplies, ground equipment for approach signals with automatic braking, buildings for safety equipment).

- **Alcanar-Camarles section**

Work necessary to permit speeds of 200/220 km/h along a 39 km double track (replacing the bed at a number of stations and halts, renovating the subballast and ballast, laying 40 km of railroad, electrifying the whole section, constructing a number of passageways and viaducts, a new station at Altea, platforms at a number of stations and electricity substations, carrying out landscaping).

- **Ampolla-Ametlla section**

Work necessary to permit speeds of 200/220 km/h along a 25.96 km double track (3 km of bed, subballast, ballast, double track with 60 kg/m UIC rails and PR-90 bivalent concrete sleepers, various structures, platforms, electrification of the whole section with double track catenary equipment).

- **Tarragona-San Vicente de Calers section**

Economical and technical preparation of the work necessary for electrifying the line and installing safety and communications equipment.

- rail necessary for doubling the line and adjusting the path of the line to permit speeds of 200/220 km/h (UIC standards, 60 kg/m rails of naturally hard steel),

installation of specific/semi-continuous automatic train protection (ATP) systems in the Mediterranean Corridor with built-in safety mechanisms and continuous speed-monitoring.

**6. Aims**

To increase speeds between Encina and Barcelona to 200/220 km/h in order to reduce journey times along the corridor, improve safety and increase the capacity of the line and the regularity and flexibility of services.

The estimated journey time after completion of the work will be 2 hours 30 minutes as against 3 hours 48 minutes in 1992.

**7. Work schedule**

Category of work	Commencement	Completion
Preparation of project	30.9.1993	30.7.1995
Purchase of land	30.12.1994	30.12.1996
Main work	30.12.1994	30.12.1999

**8. Assessment of costs and socio-economic advantages**

A profitability study has been carried out for a 30-year period from the commencement of operation of the line (2000) on the basis of the total estimated cost of the work necessary for achieving the objectives (ECU 1 000 million) and the advantages resulting therefrom.

**Results**

Discount rate: 5%  
 Net value added ECU 13.5 million  
 Cost/benefit ratio: 1.02  
 Internal rate of return: 5.1%

The work on Phase III will create 5 633 direct and 2 161 indirect jobs.

**9. Cost and assistance (in ecus)  
 (ECU 1 = PTA 161.225)**

Cost and assistance	Total cost	Eligible cost
---------------------	------------	---------------

Purchase of land	8 702 124	8 702 124
Buildings and construction	197 866 336	188 562 565
Other (technical assistance, inspection and surveillance)	5 873 779	5 873 779
<b>TOTAL</b>	<b>212 442 239</b>	<b>203 138 468</b>

Total eligible cost: 203 138 468  
 Rate of Cohesion Fund assistance: 85%  
 Cohesion Fund assistance: 172 667 694



**Publication of main points of decisions to grant financial assistance under  
Regulation (EC) No 1164/94 establishing a Cohesion Fund**

ANNEX I

INFORMATION SHEET

Summary of project

No 95.11.65.006

**1. Title**

Work on the conventional trans-European network and on combined transport.

**2. Body responsible for the application**

2.1. Name: Dirección General de Planificación (MEH)

2.2. Address: Paseo de la Castellana 162 - 28071 Madrid

**3. Authority responsible for implementation**

3.1. Name: Dirección General de Infraestructuras de Transporte Ferroviario

3.2. Address: Plaza de Sagrados Corazones, 7 - Madrid

**4. Location**

4.1. Member State: Spain

4.2. Regions: Andalusia, Aragon, Castile-La Mancha, Castile-Leon, Catalonia,  
Galicia, Madrid, Murcia, Navarra, the Basque Country.

**5. Description**

**Madrid-Hendaye line. La Cañada-Avila section. Track renovation.**

The work along this 23.7 km long stretch involves widening and improving the bed, improving the current longitudinal drainage system, cleaning the transverse drainage system, stabilizing the cuttings and drains on the bed, increasing the gauge of tunnels, lowering embankments to increase stability, renovating the track and bringing the line back into service.

**Madrid-Irún line. Avila station. Electrical interlocks.**

Drawing up technical plans and costing the work required for installing electrical interlocks at Avila station in order to improve safety, increase the capacity and fluidity of the line and reduce the number of staff engaged in operating it.

The work will involve, inter alia, the following:

- installing electrical interlocks at Avila station,
- installing audio-frequency track circuits without mechanical devices,
- installing electrical power supply equipment,
- removing existing interlocks.

**Madrid-Hendaye line. Removal of level-crossing at km 174.142 at Arévalo (Avila).**

Drawing up plans and costing the work required to remove a level-crossing at km 174.142 on the Madrid-Hendaye line and the construction of an underpass.

**Madrid-Hendaye line. Removal of level-crossing at km 582.580 at Beasain (Guipúzcoa).**

Drawing up plans and costing the work required to remove a level-crossing at km 582.580 on the Madrid-Hendaye line and the construction of an underpass.

**Castejón-Bilbao line. Removal of level-crossing at km 208.754 at Orduña (Viscaya).**

The solution adopted involves re-routing the La Antigua highway and constructing a bridge over the railway for the exclusive use of vehicles.

**Madrid-Hendaye line. Valladolid-Vitoria section. Removal of 30 level-crossings.**

Drawing up plans and costing the work required to remove 30 level-crossings on the Valladolid-Vitoria section of the Madrid-Hendaye line and the construction of 18 structures with the corresponding link roads.

**Venta de Baños-La Coruña line. Venta de Baños-León section. Removal of 17 level-crossings.**

Drawing up plans and costing the work required to remove 17 level-crossings on the Venta de Baños-León section of the Venta de Baños-La Coruña line and the construction of 11 overpasses with the necessary link roads.

**Monforte-Vigo and Guillarey-Tuy lines. Orense-Guillarey section. Track renovation.**

Extending and improving the bed, improving the drainage system, stabilizing cuttings and lowering the embankment. The track will be renewed and the line brought back into service.

**Automatic block - Casetas-Castejón.**

**Installation of additional safety equipment on the Casetas-Castejón section of the Zaragoza-Alsasua line. The work involves:**

- adjusting the electrical interlocks,
- adjusting the electronic interlocks,
- installing an automatic block along the whole section,
- modifying control panels,
- installing FTG track circuits along the whole section,
- automating level-crossings.

**Two-way automatic block on the Casetas-Zaragoza section.**

The work involves:

- installing interlocks,
- installing an automatic contraflow block along the whole section,
- adjusting the electrical interlock of the "Intermodal Goods Centre" to the contraflow automatic block,
- installing remote-control equipment and a CTC control centre at the Zaragoza-El Portillo station,
- installing a 2 200 V power line.

**Zaragoza-Alsasua line. Removal of level-crossing at km 67.195 at Ribaforada (Navarra).**

An underpass will be constructed under the Zaragoza-Alsasua line at km 67.195. The underpass will have a 7 m wide road for vehicles and a 1.5 m wide passageway for pedestrians.

**Zaragoza-Alsasua line. Removal of level-crossing at km 139.385 at Tafalla (Navarra).**

Construction of an underpass for vehicles at km 139.385.

The planned underpass will consist of a small caisson with 3.5 m headroom and 7 m clear internal width.

In order to carry out the work, a small temporary deviation will have to be constructed at one side of the railway line with a 4 m wide roadway on a 30 cm deep bed of graded artificial aggregate.

**Zaragoza-Alsasua line. Removal of level-crossing at km 37.316 at Luceni (Zaragoza).**

Diversion of the existing road between km 2+320 and km 3+320, crossing the Zaragoza-Alsasua railway line by means of a bridge at km 36-960. To remove

the Camino de Predola level-crossing, it is planned to build a link road at either side of the railway line to connect the existing road to the overpass.

**C-2 suburban line in Madrid. Atocha-Coslada San Fernando section. Track renovation.**

Renovation of the electrified double track between the Tres Ojos bridge at the crossing with the M-30 at km 17+200 and the Coslada San Fernando station at km 17+581, laying UIC-54 rails, PR-90 polyvalent sleepers and type A siliceous ballast. Other work involves the installation of a total of 32 type C-54 points at Vallecas and Vicálvaro stations and the repositioning of the safety, communications and power systems affected.

**Madrid-Barcelona line. Removal of a level-crossing at km 330.101 at Utebo (Zaragoza).**

Construction of a bridge over the railway line with four spans of 20 m, 15 m, 15 m, and 20 m respectively. The roadway will be of prefabricated, prestressed concrete beams joined by means of a 20 cm thick, 10 m wide concrete slab and supported, on bonded neoprene slabs, on three central pillars and two floor beams.

**Tarragona-Barcelona-France line . Removal of level-crossing at km 170.013 at San Feliu de Buixalleu (Gerona).**

Drawing up plans and costing the work required to remove a level-crossing at km 170.013 on the Tarragona-Barcelona-France line and the construction of an underpass.

**Tarragona-Barcelona-France line. Villajuiga-Portbou section. Track renovation.**

Renovation of the existing track between km 258.947 and km 273.107 on the Tarragona-Barcelona-France line (total of 14.160 km). The work is in the Province of Gerona, in the municipalities of Villajuiga, Llansá, Colera and Portbou.

- Track: renovation of both tracks along the whole section with UIC-54 rails, PR-90 sleepers and HM clips on a type A ballast base.
- Construction of two new structures. Construction of 3 655 m of earthen ditch and cleaning of channels.
- Tunnels: lowering the bed to prevent loss of gauge.
- Electrification and installation of safety and communications equipment. It is also planned to modify the catenary system.

**Madrid-Seville line (Atocha-Alcazar de San Juan). Villacañas station. Electrical interlocks.**

Drawing up technical plans and costing the work involved in installing electrical interlocks at Villacañas station in order to improve and rationalize its operation and to permit control of all operations by a single worker.

The work involves:

- installing electrical interlocks at Villacañas station and linking it with the existing automatic block on contiguous lines,
- installing audio-frequency track circuit without mechanical devices,
- installing power supply equipment,
- installing an operations telephone system and signals,
- installing approach signals and automatic braking devices at the station,
- removing the existing interlock.

**Linares-Almería lines. Removal of level-crossings at km 232.047, km 232.974 and 233.120 at Gador (Almería).**

Drawing up plans and costing the work required to remove three level-crossings at km 232.047, km 232.974 and km 233.120 on the Linares-Almería line, the construction of a by-pass and the improvement of an existing underpass.

**Madrid-Alicante line. Section: Alcazar San Juan-La Encina. Removal of level-crossings between km 182 and km 190.**

The four level-crossings to be removed are within the urban area of Socuéllamos (Ciudad Real).

It is planned to reposition the railway line, since the urban nature of the area prevents removal of the level-crossings with the line in its current position.

The project covers the construction of the structures required for operation, track and electrification work and the installation of equipment for the control of rail traffic.

It is planned to construct a halt on the new line in order to maintain the passenger service at Socuéllamos.

**Chinchilla-Cartagena line. Removal of level-crossing at km 346.322. Calle Paseo del Pino. Hellín (Albacete).**

Construction of a three-span road bridge over the Chinchilla-Cartagena railway line at km 346.130 and removal of the manned level-crossing at km 346.322.

In addition, construction of a footbridge near the current location of the level-crossing at km 346.322.

Construction of the bridge and footbridge will affect a number of services such as sewage pipes, overhead and underground communications cables, power lines and telephone lines.

**Alicante-Alquerías line. Removal of level-crossing at km 50.586 at Orihuela (Alicante).**

Construction of an eight-span road bridge over the Alicante-Alquerías railway line at km 51.012 and removal of a level-crossing at km 50.586.

In addition, construction of a roundabout for the future Orihuela ring-road (original project) and an intersection at km 0.840 to provide access to the existing buildings.

Construction of the bridge will affect a number of services such as drainage channels and low-voltage electricity cables.

**Installation of safety equipment at Alquerías-Santomera station.**

Installation of electrical interlocks at Alquerías-Santomera station and the replacement of points to increase the speed of trains passing through the station.

The work involves:

- installing an electrical interlock,
- installing a telephone exchange,
- ancillary work and equipment for the interlock, such as approach signals and automatic braking, wiring, ditches, buildings, etc,
- installing communications cables between the proximity circuits and the relay post,
- replacing points to permit trains to change from the Murcia-Alicante line to the Chinchilla-Cartagena line and vice versa at 60 km/h.

**6. Aims**

The principal aims are:

- to increase safety by replacing 63 level-crossings, mainly located on open stretches of track, and installing safety and communications systems suited to the traffic carried along particular sections of track,
- to carry out the first phase of the work required to develop a high-quality rail system, in particular on future high-speed lines which cannot be operated with level-crossings,
- by means of structural measures, to bring savings in time and improvements in line lay-outs to the remote areas of the peninsula in

... order to make conventional rail services competitive in terms of journey times.

**7. Work schedule**

Category of work	Commencement	Completion
Preparation of project	30.11.1992	30.6.1995
Purchase of land	30.12.1993	30.9.1995
Main work	30.12.1993	30.12.1997

**8. Assessment of costs and socio-economic advantages**

On the basis of the individual projects, the internal rate of return, the updated net value and the cost-benefit ratio for each subgroup of similar projects and of the whole group of projects have been calculated:

- track renovation (IRR): 15.6%
- safety systems (IRR): 11.82%
- removal of level-crossings (IRR): 6.2%
- Group of projects - IRR: 10.79%
- UNV: ECU 86.7 million
- C/B ratio: 1.93

**10. Cost and assistance (in ecus)**  
(ECU 1 = PTA 162.323)

	Total cost	Eligible cost
Planning and preparation	505 165	-
Purchase of land	9 425 651	9 117 623
Buildings and construction	124 350 831	99 708 605
Inspection and security	2 063 786	2 063 786
<b>TOTAL</b>	<b>136 345 433</b>	<b>110 890 014</b>

Total eligible cost: 110 890 014  
 Rate of assistance from the Cohesion Fund: 85%  
 Cohesion Fund assistance: 94 256 510

**Publication of main points of decisions to grant financial assistance under  
Regulation (EC) No 1164/94 establishing a Cohesion Fund**

ANNEX I

**INFORMATION SHEET**

Summary of project

**No 95.11.65.008**

**1. Title**

Trans-Catalonia Highway: Lérida-Gerona (Rajadell-Manresa-Artés sections).

**2. Body responsible for the application**

2.1. Name: Dirección General de Planificación (MEH)

2.2. Address: Paseo de la Castellana 162 - 28071 Madrid

**3. Authority responsible for implementation**

3.1. Name: Generalidad de Cataluña  
Dpto. de Política Territorial: Obras Públicas Gestión de Infraestructuras

3.2. Address: José Tarradellas 20 - 30, 1ª planta  
08029 - Barcelona

**4. Location**

4.1. Member State: Spain

4.2. Region: Catalonia

**5. Description**

The basic function of the Trans-Catalonia Highway is to provide three links with the trans-European networks: the A-7 motorway at Gerona, the E-9 trans-European highway at Manresa and the A-2 motorway at Lérida.

The principal idea is to provide a link between the cities of Lérida and Gerona across the central lowland without the need to pass through Barcelona, reshaping the radial pattern of the Catalan road network (reducing the length of the route from 250 km to around 215 km and cutting the journey time by 14%) and opening a direct route to the northern coast and the European road network.



The route falls into five, very different sections: from Lérida to Cervera, from Cervera to Manresa, from Manresa to Vic, from Vic to Olot (the northern end of the route where it connects with the Olot-Figueras section):

This Decision covers the Rajadell-Manresa-Artés (Rajadell-Manresa, Ronda de Manresa, Manresa-San Fruitós, San Fruitós-Artés) and the Vic-Manlleu (Xarxa arterial de Vic and Vic-Manlleu) sections, their lengths being as follows:

Rajadell-Manresa	7.10 km
Ronda de Manresa	1.36 km
Manresa-San Fruitós	5.04 km
San Fruitós-Artés	8.00 km
Xarxa arterial de Vic	8.11 km
Vic-Manlleu	3.65 km
<b>Total</b>	<b>33.26 km</b>

On the Rajadell-Manresa-Artés section it is planned to construct four viaducts, eight overpasses and nine interchanges and lay out 15 areas underneath the road and one service area.

On the Vic-Manlleu section it is planned to construct six interchanges, one viaduct, eight overpasses and 12 underpasses.

## 6. Aims

The principal aim is the creation of a corridor linking the interior of the Iberian Peninsula and the Mediterranean coast to the main access routes to Europe through the internal regions of Catalonia.

The consolidation of this new corridor will make a substantial contribution to improving the flow of people and goods and have a positive effect on inter-Community trade.

Further aims are to promote the economic development of the regions in the interior and in the foothills of the Pyrenees, reduce congestion in the metropolitan area of Barcelona and achieve a definitive improvement in the balance of the region.

The Trans-Catalonia Highway will improve the distribution and marketing of agricultural products, reduce their transport costs and increase their potential market, particularly in Europe.

The new route will provide alternative locations for industrial undertakings, helping to reduce congestion in the industrial zones of the metropolitan area of Barcelona and to promote the creation of services to supply those undertakings.

The building industry and the service sector (transport and storage) will also benefit from the increase in population.

In line with the general traffic forecast contained in the Catalan Highways Plan, the route should achieve four objectives:

- improving communications between internal regions and linking those regions to existing major routes to the interior of the Peninsula, the Mediterranean coast and the rest of Europe,
- providing a direct route between Lérida and Gerona, without the need to go through Barcelona, reducing the route from 250 km to around 215 km and reducing travelling time by 14%,
- creating a new route for the transport of goods from the French border and Lérida via La Junquera,
- reducing traffic congestion in the metropolitan area of Barcelona and making an important contribution to reshaping the current radial pattern of the road network, centred on Barcelona.

#### 7. Work schedule

Rajadell/Manresa/Artés section	Commencement	Completion
Preparation of project	11.1.1993	31.12.1994
Purchase of land	1.3.1994	1.6.1995
Main work	1.4.1994	31.12.1995
Operational phase	31.12.1995	
Vic-Manlleu section		
Preparation of project	1.3.1993	30.5.1995
Purchase of land	1.4.1995	1.9.1995
Main work	1.9.1995	31.12.1995
Operative phase	31.12.1995	

#### 8. Assessment of costs and socio-economic advantages

Principal indicators used:

- period of analysis: 25 years from the commencement of work
- ADT Cervera-Manresa: 11 900 vehicles

Manresa-Vic: 13 232 vehicles  
 Vic-Olot: 12 041 vehicles

The economic analysis takes account of the direct costs and benefits (cost of preparing the project, construction work, maintenance, savings in time, accidents and the costs of vehicle maintenance).

Discount rate chosen: 6%:  
 Result of the analysis:

- Updated net value: ECU 375 million
- Internal rate of return: 16.6%
- Cost-effectiveness ratio: 2.1
- First year of accumulated net benefits: 2004

9. **Environmental impact assessment**

An environmental impact assessment was carried out before work began in accordance with Community Directive 85/337/EEC.

Of the total cost, 18% will be devoted to measures considered necessary to protect the environment and correct the project's impact on it.

10. **Cost and assistance (in ecus)**  
 (ECU 1 = PTA 162.323)

	Total cost	Eligible cost
Planning and preparation	1 633 547	954 886
Work	58 605 373	52 949 982
Total	60 237 930	53 904 868

Total eligible cost: 53 904 868  
 Rate of Cohesion Fund assistance: 80%  
 Cohesion Fund assistance: 43 123 894

SPAIN

STUDY

VTS (transport/environment project)

**Publication of main points of decisions to grant financial assistance under  
Regulation (EC) No 1164/94 establishing a Cohesion Fund**

ANNEX I

**INFORMATION SHEET**

Summary of project

**No 95.11.15.001**

**1. Title:**

Marine surveillance and the control of marine pollution (2).

**2. Body responsible for the application**

2.1. Name: Dirección General de Planificación

2.2. Address: Paseo de la Castellana 162, 28071 Madrid

**3. Authority responsible for implementation**

3.1. Name: Dirección General de Marina Mercante

3.2. Address: C/ Ruiz de Alarcón, 1  
28071 Madrid

**4. Location**

4.1. Member State: Spain

4.2. Region: Andalusia, Balearic Islands, Catalonia, País Vasco, Valencia

**5. Description**

The measures are located in Almería, Bilbao, Palma de Mallorca, Tarragona and Valencia. Since these ports have seagoing traffic it is desirable for control centres to be set up there to ensure improved marine safety.

The following projects are planned:

**A) Almería**

**1. Construction of a Regional Rescue Coordination Centre and Harbour Master's Office for Almería.**

The project involves building the Regional Rescue Centre and the Harbour Master's Office.

Once finished, the building will cover a total area of 2 361.61 m<sup>2</sup>. The part occupied by the Harbour Master's Office will have three floors and will contain all the equipment and facilities required by this activity. At the southern end of the building will be a 15-storey tower to house the Regional Coordination Centre, including the crisis room, control room, auxiliary services, etc. The building will be situated on the Muelle de Levante at the Port of Almería. The total useful area of the complex is 1 881.94 m<sup>2</sup>.

**2. Electronic equipment for the Regional Rescue Coordination Centre of Almería.**

The Coordination Centre will require electronic equipment for the building housing the Centre itself and for the two remote stations, situated at Castillo de San Telmo and Cabo de Gata.

The equipment planned for each location is as follows:

- (a) **Centre:** control and presentation; VHF radiogoniometer; VHF communications for SMM; SMA and SMT; MW communications; communication recorder; weather station; link with remote stations; computer system; burglar and fire alarm; electricity.
- (b) **Castillo de San Telmo remote station:** X-band radar; link with the Centre; burglar and fire alarm; electricity.
- (c) **Cabo de Gata remote station:** band radar; VHF radiogoniometer; burglar and fire alarm; electricity.

**B. Bilbao**

The following projects are planned:

**1. Construction of the building for the Regional Marine Rescue Coordination and Traffic Control Centre of the Autonomous Port of Bilbao. Santurce breakwater (Vizcaya).**

The Regional Marine Rescue Coordination Centre will be located in the Autonomous Port of Bilbao. It will provide information to the National Rescue Coordination Centre and will be responsible for coordinating and directing operations in its sphere of responsibility (provisionally from Cabo de Ajo to the French coast). Together with the Gijón centre, this Centre will cover the whole of the Cantabrian coast.

The building will have nine storeys and a total built area of 3 994.80 m<sup>2</sup>. The last two storeys (8th and 9th) will be equipped with radio antennae, radar, dish antennae and other equipment for reception and transmission.

Extension of the Port, the first phase of which is under way, will turn it into a highly centralized nerve centre; the current ratio between the area of water and the quay-level surface of the docks will vary considerably.

**2. Electronic equipment for the Regional Marine Rescue Coordination Centre of Bilbao.**

The Regional Marine Rescue Coordination Centre will require electronic equipment for the building housing the Centre itself and for the two remote stations, situated at Punta Galea and Cabo Machichaco. The equipment planned for each location is as follows:

- (a) **Centre:** control and presentation; VHF communications for SMM; MW communications; communication recorder; link with remote stations; computer system; electricity.
- (b) **Punta Galea remote station:** band radar; radiogoniometer; VHF communications for SMA; weather station; link with the Centre; burglar and fire alarms; electricity.
- (c) **Cabo Ajo remote station:** VHF radiogoniometer; burglar and fire alarm; electricity.

**C. PALMA DE MALLORCA**

The following project is planned:

**1. Electronic equipment for the Regional Marine Rescue Coordination Centre of Palma de Mallorca.**

The equipment planned for each location is as follows:

- (a) **Centre:** control and presentation; VHF communications for SMM, SMA and SMT; MW communications; communication recorder; weather station; link with remote stations; computer system; burglar and fire alarms; electricity.
- (b) **Sierra Alfabia remote station:** radiogoniometer; VHF communications for SMA and SMT; link with the Centre; burglar and fire alarms; electricity.
- (c) **Cabo Figueras remote station:** X-band radar; burglar and fire alarm; electricity.

**D. TARRAGONA**

The following project is planned:

**1. Electronic equipment for the Local Rescue Coordination Centre of Tarragona.**

The Local Rescue Coordination Centre will require electronic equipment for the building housing the Centre itself and for the remote station situated at Cabo Salou. The equipment planned for each location is as follows:

- (a) **Centre:** control and presentation; VHF communications for SMA, SMT and, partially, SMM; MW communications; communication recorder; weather station; link with remote station; computer system; electricity.
- (b) **Cabo Salou remote station:** band radar; VHF radiogoniometer; partial VHF communications for SMM; link with the Centre; burglar and fire alarms; electricity.

**E. VALENCIA**

The following projects are planned:

**1. Construction of building for the Harbour Master's Office and Marine Traffic Control Centre of Valencia.**

The ground plan of the building is made up of a number of cubes, surrounding a central section crowned by the control tower. It is thus divided into two segments clearly differentiated according to their functions: marine rescue coordination and the Harbour Master's Office. The two segments share a single entrance hall. The two functional segments are contained in two different parts of the building. The first houses the marine traffic control room and marine rescue coordination, together with the console room and meeting room, at the highest level of the building, at a height of approximately 40 m, in a cube set atop the rest of the building to ensure better visibility of port movements. The services catering for the public are in the Harbour Master's Office.

**2. Electronic equipment for the Regional Marine Rescue Coordination Centre of Valencia.**

The Marine Rescue Coordination Centre will require electronic equipment for the building housing the Centre itself and for the three remote stations situated on the dockside in the port, at Castellón de la Plana and at Cabo de la Nao.

The equipment planned for each location is as follows:

- (a) **Centre:** control and presentation; VHF communications for SMM; MW communications; communication recorder; weather station; link with remote stations; computer system; electricity.



- (b) **Dockside remote station:** X-band radar; radiogoniometer; VHF communications for SMA and SMT; link with the Centre; burglar and fire alarms; electricity.
- (c) **Castellón de la Plana and Cabo de la Nao remote stations:** radiogoniometer; VHF communications for SMA and SMT; link with the Centre; burglar and fire alarms; electricity.

6. Aims

According to the National Plan for special services to save human lives at sea, the specific tasks of the Network of Marine Traffic Control Centres are:

- surveillance and prevention of accidents at sea
- surveillance and control of marine traffic
- coordination of marine rescue
- monitoring and prevention of pollution
- monitoring of activity at sea and in port
- dissemination of marine safety brochures
- provision of support and information to the government department responsible for maritime affairs.

Creation of the network of control centres will make it possible to carry out these tasks along stretches of the Spanish coast which are sensitive because of the intensity of marine traffic (Bilbao), transport of hazardous goods (Tarragona with its oil terminal), heavy pleasure-boat traffic (Palma de Mallorca) or import transit traffic (Valencia and Murcia).

The new premises and equipment for the Harbour Masters' Offices in Almería, Bilbao and Valencia will enable the Harbour Masters to improve their control over activities at sea and in port as well as the administrative tasks of handling shipping movements, inspection of vessels and other such activities.

7. Work schedule

Category of work	Commencement	Completion
Main work	1.10.1994	31.12.1996
Operational phase	1.1.1997	

8. Assessment of costs and socio-economic advantages

The National Plan for special services to save human life at sea and prevent marine pollution was approved on 13 March 1994 in compliance with the mandate in Article 78 of Law 27/1992 on State ports and the merchant navy. The Plan's main antecedent was Spain's ratification of the Hamburg Convention, also known as the 1979 SAR Convention (International Convention on Marine Search and Rescue, 1979) in March 1993, which laid the legal and technical bases for an International Marine Search and Rescue Plan.

The National Plan also plays a role in the national and Community policy on marine rescue and ecological protection of the sea, as well as in the undertakings made by the European Union in its marine safety programme - and the undertakings of international organizations.

Its chief aim is to set up and maintain a national organization for marine search and rescue and pollution control.

In this context, premises are being built and equipped for the different types of coordination centre, taking care that the same criteria are used for functions and equipment.

- In 1993 a total of 704 vessels put in at the port of Almería, of which 451 were ferries, carrying more than 300 000 passengers.

2 250 000 tonnes of freight were handled.

In November 1994 a ferry route to Nador (Morocco) was opened which is expected to transport 360 000 passengers during 1995.

A fishing fleet of some 100 vessels operates in the area of the Almería bay.

In 1993 a total of 3 284 vessels put in at the port of Bilbao, and around 25 million tonnes of freight were handled.

Bulk transport of oil products and derivatives exceeded 14.5 million tonnes.

The regular route to England carried 89 118 passengers in both directions.

The fact that part of the goods handled must be moved up the estuary in barges to the factories and places of production/consumption also has an effect on port traffic.

The time spent at anchor both inside and outside the port by vessels waiting for repair in the shipyards heightens the need for a traffic control centre.

- In 1993 2 708 vessels put in at the port of Palma, and 3 169 725 tonnes of freight were handled, of which 812 907 tonnes were bulk liquid, mainly oil products. Ferry passenger traffic amounted to 576 450.

In addition there are a fishing fleet and three leisure marinas within the port of Palma, with 2 000 berths.

- In 1994 2 227 merchant vessels put in at the port of Tarragona and 23.8 million tonnes of freight were handled, including 14.5 million tonnes of oil and oil products handled at the refinery. There is also a great deal of bulk transport, with 6.8 million tonnes handled.

Tarragona also has a large fishing fleet which leaves and enters port at fixed times, when there is greater likelihood of dangerous situations arising involving manoeuvring vessels.

- In 1994 4 708 merchant vessels put in at the port of Valencia. There are also 108 fishing vessels and 548 pleasure craft registered at the port, which make for considerable daily activity in port and coastal waters.

A total of 13 million tonnes of freight were handled in 1994, a considerable proportion of which were oil and chemical products more likely to create a dangerous situation in the event of an accident.

Passenger traffic during the same period amounted to 187 173.

9. **Cost and assistance (in ecus)**

(ECU 1 = PTA 162.323)

Set of projects	Total cost	Expenditure prior to eligibility date	Eligible costs
Buildings and construction	6 481 257	2 617 282	3 863 975
Equipment and machinery	7 350 074	-	7 350 074
VAT	2 213 014	418 764	1 794 250
<b>TOTAL</b>	<b>16 044 345</b>	<b>3 036 046</b>	<b>13 008 299</b>

**Breakdown by project:**

<b>Place/work</b>	<b>Buildings and construction</b>	<b>Equipment and machinery</b>	<b>Eligible costs</b>
Almería	863 334	1 940 564	3 803 898
Bilbao	987 796	1 887 323	2 875 119
Palma de Mallorca	1 631 081	1 804 582	3 435 663
Tarragona	-	944 333	944 333
Valencia	-	1 949 286	1 949 286
<b>TOTAL</b>	<b>4 482 211</b>	<b>8 526 088</b>	<b>13 008 299</b>

Total eligible cost: ECU 13 008 299  
 Rate of assistance: 85%  
 Cohesion Fund assistance: ECU 11 057 054

10. Monitoring indicators

Civil engineering works	Estimated volume of work to terminate project
Excavation	856 m <sup>3</sup>
Concrete	4 742 m <sup>3</sup>
Floors	6 692 m <sup>3</sup>
<b>Equipment</b>	
Radars/Goniometers	7/11 units
VHF/MF communications consoles	5 units
Radio links and remote control	4 units
Weather stations	5 units
Electricity supply	5 units
Local area networks	5 units

**Publication of main points of decisions to grant financial assistance under Regulation  
(EC) No 1164/94 establishing a Cohesion Fund**

**SUMMARY**

Summary of the project

**No: 95.11.15.002**

**1. Title**

Prior appraisal and cost/benefit analysis of projects from local bodies.

**2. Body responsible for the application**

- 2.1. Name: Dirección General de Planificación
- 2.2. Address: Paseo de la Castellana 162, 28071 Madrid

**3. Authority responsible for implementation**

- 3.1. Name: Dirección General de Planificación
- 3.2. Address: Paseo de la Castellana 162, 28071 Madrid

**4. Location**

- 4.1. Member State: Spain
- 4.2. Region: Aragón, Balearic Islands, Basque Country, Catalonia, Madrid, Navarre and Rioja

**5. Description**

A series of four technical assistance studies for the preparation of documents required under Community rules in relation to environmental projects submitted by local authorities in 1995 for part-financing from the Cohesion Fund. They include urban drainage and water purification, improvements to the urban environment and infrastructure to improve the environment in Madrid, the management of urban waste and infrastructure to improve the environment in Barcelona and the Barcelona metropolitan area.

**6. Aims**

To carry out the studies required for a detailed prior appraisal of the results expected from implementation of the projects put forward by local authorities. These studies will concentrate on a general diagnosis of existing problems: analysis of projects in terms of the strategy and priorities of Spain's environmental policy, its compatibility with

Community environmental policies, the impact of these policies on the environment, the economic and social benefits to be secured through implementation of the projects through cost/benefit analysis and an analysis of the administrative situation, the financing plan and sources of finance.

7. Work schedule

Type of work	Start	End
Study	1 May 1995	31 July 1995

8. Assessment of costs and socio-economic advantages

Not applicable

9. Environmental impact assessment

Not applicable.

10. Cost and assistance (in ecus)

Total cost:	182 288
Total eligible cost:	182 288
Percentage aid from the Cohesion Fund:	100%
Cohesion Fund aid:	182 288