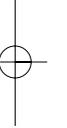
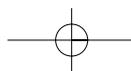
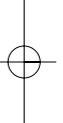
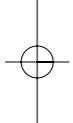
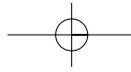


5



THE GUIDELINES FOR ACTION





STRATEGIC INFRASTRUCTURES AND TRANSPORT PLAN **PEIT**

5.1. GUIDELINES FOR THE SYSTEM AS A WHOLE

On the basis of the objectives and strategic options defined in the PEIT 2020 Scenario, the Ministry of Public Works and Transport infrastructures and services policy will in the coming years be adjusted to the following guidelines for action.

5.1.1. A unified vision of infrastructures and services: Intermodality

- a) The transport system is conceived as a network of networks in terms of both the infrastructures and the services they carry, and requires an intermodal view which must be shared and developed according to the levels of competence and responsibility of each of the players –the Autonomous Communities, Municipalities and Operators– as well as by the Ministry. Integration of the various modes must take account of all areas of action: the physical connection, service coordination, charges, management and planning.
- b) This vision which, avoiding the introduction of sudden procedural shifts, allows for continuity with the traditional working procedure according to modal networks, means dealing particularly with the points or nodes where they are located, and provides objective mainstreaming elements around which to define, agree and, where necessary, resolve proposals, initiatives and actions by different players in a homogeneous way.
- c) Thus planning, as a coherent meeting point in establishing the current and future form of the system and its operation, must at least define the following aspects:
 - The creation of a general scheme of development objectives and policies, fomenting intermodality, defining the basic intermodal network and interchange nodes.
 - The conditioning of clearance and funding for modal projects upon the outcome of a meticulous analysis of their efficacy and intermodal efficiency in relation to that general scheme.
 - The inclusion and consolidation of this approach as a criterion and universal working procedure on the Transport Sector Conference agenda.
 - The provision of the tools required, and most particularly a National Transport Model available to the public and as reference for studies and prospecting.
- d) Application of the set of guidelines, and implementation of sector plans and programs must address the progressive application of this strategic principle of intermodality.
- e) The Operators, who have the full capacity to make proposals in this area to their monitoring and control bodies and whose proposals will, irrespective of their specific marketing criteria, be assessed in terms of the capacity to coordinate and enhance service levels through intermodality.

5.1.2. Integrated management of the system according safety and security, quality and efficiency criteria

- a) User rights need to converge urgently, particularly in the realm of safety. User rights charters will be created, the adaptation will be stimulated of the practices of the safest

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sectors to the rest, and effective internalisation systems will be established for the costs of accidents in each mode.

- b) Enhanced quality control systems for services and infrastructures, complemented with new tools such as periodic external audits.
- c) Standardisation of management procedures in the different transport modes (infrastructures and services), with comparative analysis allowing the incorporation of systems which, in multimodal terms, improve safety and security increase the quality of services and infrastructures, and assign resources more efficiently.
- d) The development of systems for multimode evaluation of new actions, integrating socio-economic, territorial and environmental elements, as a backup tool to decision-making, ensuring greater efficiency of investment in new infrastructures and in the maintenance of those in place.

5.1.3. The regulatory framework and cooperation with other Administrations, institutions and social representatives

- a) The mechanisms for the planning and design of actions in both transport infrastructures and services must provide consistent standards of transparency, possibilities for public participation, and an evaluation of their effects. With this in mind, the Ministry of Public Works and Transport is to review the existing provisions within its jurisdiction to increase and harmonise levels of public participation and transparency.
- b) The functioning of the transport system is influenced by the policies of a variety of Administrations. In turn, many such actions have effects on the territory and on the economic system, where the range of authorities is complex. Thus the Ministry of Public Works and Transport Directive Centres and Enterprises must carefully assess the effects of action to be taken, confirming that they are consistent with the territorial, economic and social objectives of the Administrations involved. As far as possible, such action must form part of a joint strategy or thinking on that local, metropolitan or regional territorial sphere, using suitable coordination procedures.
- c) The PEIT's objectives are ambitious, and cannot be attained without the active involvement of other Administrations and the social representatives. A policy is thus required which stimulates and backs up the actions of those agents. Such a policy has to be implemented through pilot programs offering technical and financial support to innovative action which is consistent with the Plan, at the local and regional levels, and by the operators. On the other hand, such action must be able to draw on subsequent evaluation and disclosure procedures which are able to secure maximum effect on the transport system. Pilot programs will be designed so that the Ministry of Public Works and Transport support is granted in conditions of maximum participation and support for excellence.
- d) The transport sector must progressively integrate environmental and sustainable development objectives, in line with European commitments. This will be done by enhancing and formalising the mechanisms for coordination and cooperation with other Departments that have jurisdiction in relevant areas related to transport policy, and particularly with the Ministry of the Environment.

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- e) The international realm and most particularly the European Union significantly condition the transport policy to be implemented in this country. The development will be promoted of an international regulatory framework favouring the PEIT objectives, through an active international transport policy, which identifies the openings available for progress, which assigns the necessary resources, and which implements systematic and coordinated monitoring of initiatives under way, in collaboration with the Autonomous Communities.

5.1.4. Financing the system, and charges

- a) Implementation of a Framework Act to Finance the Transport System, favouring investment stability and efficiency, and transparency in the formation of transport charges, so that the costs for the use of the infrastructures are distributed equitably among users and society as a whole, improving the position of the weakest players in the transport market against the activity of dominant agents, and guaranteeing conditions of fair competition between modes and operators.
- b) A progressive introduction of pricing principles based on effective use of the infrastructures, the quality of the service and the internalisation of external factors.
- c) The incorporation of infrastructures and services operated under concessions into the same general principles of evaluation and management as are implemented for the transport system as a whole. Projects under concessions must undergo the same prior assessments –socio-economic and strategic environmental compatibility– as the other activities carried out by the Ministry of Public Works and Transport; the quality of services provided must at least incorporate the levels fixed in the User Rights Charter for the system overall, and procedures will be put in place to monitor compliance.
- d) Preferential use of resources obtained from charges to amortise infrastructures, for maintenance, to improve the whole intermodal transport system, and action to mitigate and correct the impact of transport.
- e) The startup of an intermodal rapid-transport passenger system is in the hands of all agents, irrespective of their modal specialisation. Thus the systems for financing intermodal connection requirements will be endowed with contributions from the operators, from all the Public Administrations and, where applicable, from the private sector.
- f) The Ministry of Public Works and Transport will, as part of its authorities, promote a review of the taxation of the transport sector, so as to adjust it to the objectives of the PEIT and other government strategies and policies, particularly in the Fight against Climate Change, and Energy Efficiency.

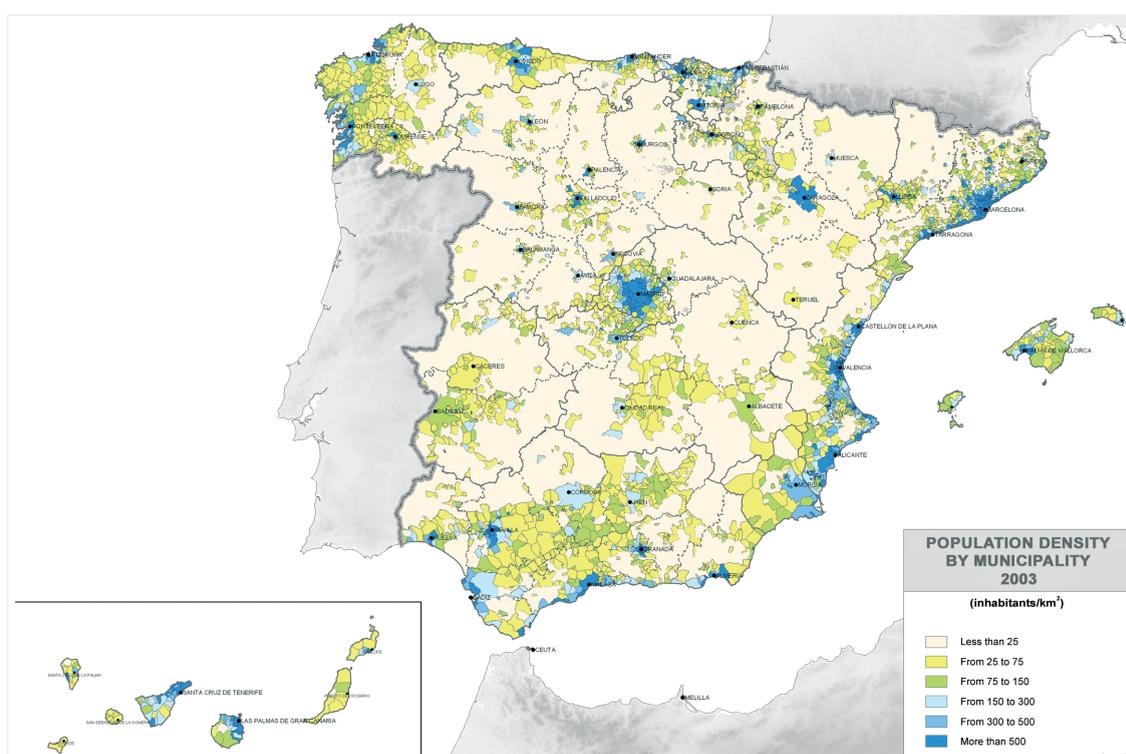
5.1.5. Territorial balance and enhanced accessibility

- a) Action in the transport system is conceived in terms of elements at the service of territorial policy objectives, agreed with each of the competent Administrations and based on principles of responsible natural resource management, protection of the historic, natural, cultural and landscape heritage, and active contribution to environmental improvement.

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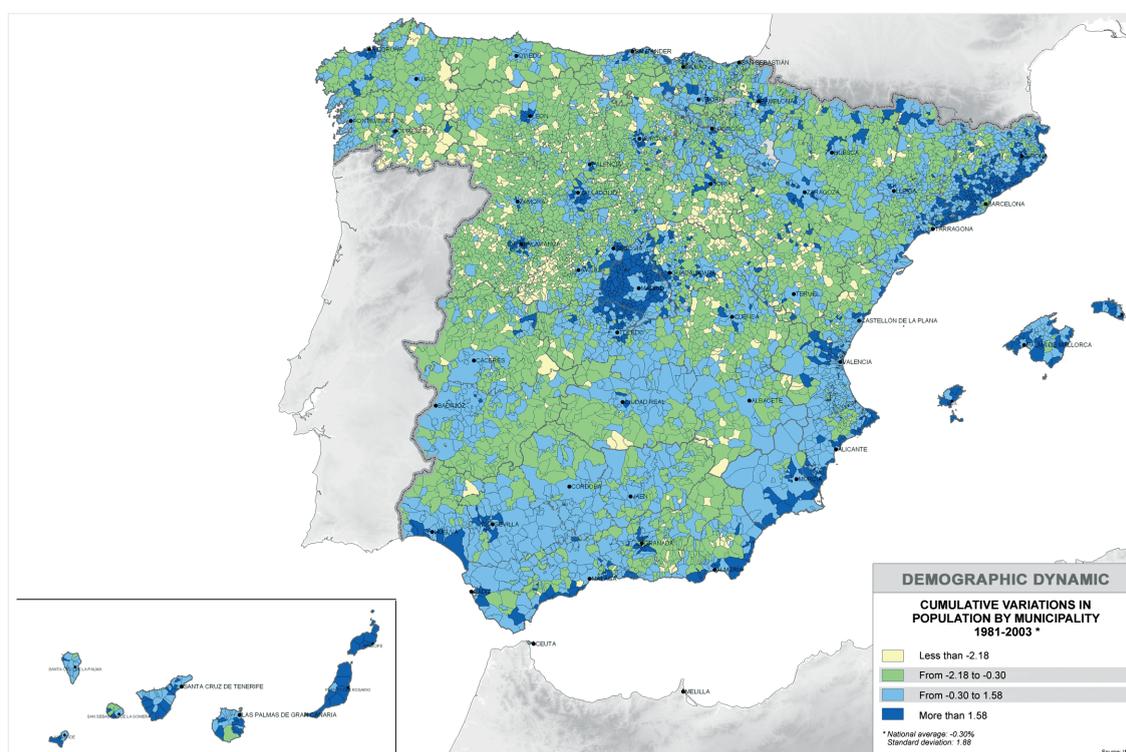
- b) The transport system must develop in a balanced fashion, meeting demands for the mobility of passenger and goods while avoiding both bottlenecks and oversupply. The land transport networks must be developed in such a way as to correct the radial systems of the past, establishing connections with the other networks, limiting territorial concentration of high-capacity infrastructures and adjusting services to the intensity of flow.
- c) True territorial accessibility is provided by the services, not just by the infrastructures, so that improvements to them must be based on the creation of effective public services for access to nodes in the high-performance networks. This “capillary” access will be promoted by coordinating with the competent Administrations, and by the adaptation of the infrastructures to these needs.
- d) Transport in saturated corridors or particularly sensitive zones (metropolitan areas, coastal corridors, mountain massifs) will be dealt with specifically, identifying existing management alternatives and adopting suitable individual plans for the development of the necessary infrastructures, and their funding.
- e) Development of cross-border links between Autonomous Communities with land borders and the regions of Portugal and the South of France demands the launch of transport infrastructures and services which are able to channel these economic and cultural relations. The characteristics of the infrastructures and services needed are clearly different from those for international transport, so that they must be developed with specific criteria which avoid their *de facto* transformation into alternative corridors for those large transport flows.
- f) Non-mainland Spain, that is the Balearic and Canary archipelagos and the autonomous cities of Ceuta and Melilla, require special consideration to guarantee adequate conditions of mobility for persons and goods, in line with the differing

FIGURE 15. Population densities by municipality



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FIGURE 16. The demographic dynamic: variation in density, 1981-2003



features of each of these territories, and the PEIT's principles of efficiency and sustainability. Their port and airport systems have to be modernised, and routes of public interest need to be defined in air or sea transport, coordinating with regional or local transport systems, in each case favouring those alternatives for mobility which are able to better comply with the Plan's principles of efficiency, cohesion and sustainability. Such a policy may, in certain circumstances, be implemented through public contracts which guarantee the transport of citizens and the supply of goods in those regions.

5.1.6. Urban mobility

- a) The Ministry of Public Works and Transport will act in the urban realm through cooperation programs with the Autonomous Communities and cities, based on criteria of co-financing, innovation and concurrence.
- b) In the specific case of action toward the urban integration of rail, the three Administrations will have to be involved. Each case will require a specific intervention study. The Ministry links the operation to integrate rail to an upgrading of the rail system with a maximum contribution of the resources the operation requires, directly or through its dependent enterprises. Should the remodelling involve city operations and land is obtained for urban use, the public lands arising will also adhere to the Government's housing policy objectives and criteria.
- c) The State Administration's participation in joint actions on infrastructures and urban and metropolitan transport programs will be placed in the context of a Sustainable Mobility Plan (PMS) drawn up by the Administrations concerned, in that area of action; in line with the Thematic Strategy the European Union is to develop from 2005, it will

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foment the use of public transport and non-motorised modes, while seeking compliance with European directives on the control of greenhouse gas emissions.

- d) Experimentally and as an innovation the Ministry of Public Works and Transport will collaborate with the competent Administrations to prepare pilot programs for specific forms of transport (non-motorised, school, delivery of goods) which may provide references for other urban and metropolitan fields, contributing to sustainable mobility.
- e) Elaboration of a regulatory framework which is adequate for the financing of transport in cities, based on cooperation with Local and Regional Autonomous Administrations and on the implementation of the objectives set out in the PEIT.
- f) The Ministry of Public Works and Transport actions in the urban environment will deal in any case with needs arising from the transfer and superimposition of interurban and urban flows, and the specific demands of urban functions implemented as a consequence of such infrastructures beyond the realm of transport (landscape and urban integration, public space, social equity ...).

5.1.7. Improving the goods transport system and its international insertion

- a) Development of alternative transport axes with the rest of Europe by upgrading international rail connections in conditions of interoperability, bringing the rail network for goods into line with international standards, and the progressive launch of the "sea motorways" in cooperation with the European Union and, in particular, with the main countries for the transit, origin and destination of flows, taking account of new opportunities introduced in this respect by the Union's enlargement to the countries of Central and Eastern Europe. Also in the EU realm, the extension will be fomented of these "sea motorways" to Mediterranean countries not in the EU, and in particular, those of the Maghreb.
- b) Development of the potential of the area of the Straits of Gibraltar as an international transport node, reinforcing cooperation with the Moroccan authorities and setting up a joint strategy to improve infrastructures and transport services in the area.
- c) Development of complementary infrastructures backing up intermodal transport, by enhancing the intermodal capabilities of ports and their rail accesses; consolidation of the intermodal network of logistic platforms and goods centres in cooperation with the other public Administrations, the operators and the private sector.
- d) The structuring of the entire logistic system and goods transport around a network of regional nodes fully integrated into the territory and which constitute the centres of logistic articulation of their hinterlands. These nodes take the form of a series of multimodal goods transport corridors, adding alternative transversal trunks to the traditional corridors (radial, the Mediterranean trunk and the Ebro Corridor). The system's international connection will be enhanced with the development of the "sea motorways", the future trans-Pyrenees rail link and the connections with Portugal.
- e) Strengthening the international role of the agents in the logistic chain, promoting the consolidation of intermodal logistic operators with capacity to compete at the European and international levels. In particular, the advent of European rail

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operators will allow a growing part of the flow of goods to the rest of Europe to be channelled into rail.

- f) Enhanced transport quality, particularly improving the control systems in the current regulations (competition, access, the social provisions ...) and, in European terms, promoting new provisions which stimulate the convergence of conditions between modes and the integration of these systems throughout the transport chain.
- g) Modernisation and integration of the systems for the monitoring and management of goods flows, by fomenting the tools offered by Intelligent Transport Systems (ITS), ultimately including review of the legal procedures and frameworks.
- h) Progressive development of the principle of internalisation of marginal costs by the transport chain and the commissioning of flexible financing systems for infrastructures, so stimulating the integration of modes, making it possible to decant resources from one mode to another, according to strict criteria concerning the promotion of intermodality, while channelling private sector investment pursuant to PEIT principles.

5.1.8. A passenger transport system open to the world

- a) Consolidation of the Iberian Peninsula as an international transport node, accentuating the synergies between the large mainland airports and exploiting the advantages of the reserves of capacity in comparison with other major European airports.
- b) An efficient passenger transport system demands promotion of better connections between the Spanish metropolitan areas and those in the rest of Europe. The new initiatives for liberalisation in the air sector and the greater involvement of the regional and local Administrations in airport management must be used as instruments for this upgrading of international accessibility.
- c) The concentration of the public passenger transport system in too-few nodes may prove inefficient, fragile and offer few or no alternatives to users. An active policy for the development of the other airports and of alternative systems (rail) for shorter-distance services should make it possible, within the PEIT horizon, to avoid excessive concentration of demand at these critical nodes, and moderate their necessities for expansion.
- d) An efficient intermodal passenger transport system offers high quality without incurring the costs which might be encountered in dealing with flows often with low demand in direct origin-destination services. Such a system must be developed in cooperation with the operators and with the Authorities involved in each case, taking advantage of experience already consolidated in the urban realm, and the development of the European regulatory framework.
- e) The passenger transport provisions must include an increasingly homogeneous definition of user rights throughout the transport chain, following and furthering the model begun by the air sector.
- f) Intermodal passenger transport must take in the specificities of the needs of non-mainland Spain. Thus suitable systems will be developed for the integration of national and international sea and air transport into the intermodal transport chain and for convergence between the levels of service offered in the various categories.

STRATEGIC INFRASTRUCTURES AND TRANSPORT PLAN **PEIT****5.2. SPECIFIC GUIDELINES FOR THE DEVELOPMENT OF SECTOR POLICIES****5.2.1. Roads**

- a) Definition of a Basic High-Performance Network coordinated with the Autonomous Communities, including such routes whoever holds title to them. This Basic Network will provide the principles for the prioritisation and coordination of the Ministry of Public Works and Transport actions.
- b) Concessions to build new toll motorways will in the first instance be conditional upon attainment of the objectives of territorial cohesion and functionality established in the PEIT and, secondly, on the presence of a non-toll high-capacity route whose lie, design and state of conservation constitutes a genuine alternative to the toll road. When specifically requested by the Territorial Administrations concerned, this second condition may be lifted.
- c) On corridors where roads belonging to different bodies coincide, prior compatibility studies will be carried out in cooperation with the Administrations owning each route to define the most suitable development, reducing land occupation and fragmentation and avoiding actions which may raise conflicts or prove redundant.
- d) Intervention in the State Roads Network will be oriented toward the consolidation of a meshed network formed by motorways, dual carriageways and conventional roads with advanced design features, providing homogeneous cover in the region. The type of route depends in each case on traffic expectations, and its characteristics (interurban, suburban, bypass or urban, the relation between passengers and goods) must be such as to offer a consistent level of service throughout an entire circuit, and its design must be compatible with eventual adaptation to a higher level, by phases, when demand justifies this.
- e) Action in the conventional network will aim to progressively attain conditions of quality of service adequate to the zone, to the demand characteristics and to local needs. The future upgrading program will identify urgent action for the improvement of sections whose parameters are clearly inadequate and where there is no medium-term planning for a new route, and will suggest the development of a system of "green roads" from trunks running through areas of high environmental value, and where there are alternative high-capacity routes and light or moderate traffic levels.
- f) Construction of new town bypasses will be preferentially directed at routes with significant traffic volumes (more than 4,000 vehicles/day) or which suffer from road safety difficulties generated by geometric characteristics which are not adequate to the route of which they form a part.

On routes with traffic in excess of 8,000 vehicles/day, where a significant number of sections run through localities, there is generalised building construction close to the road, and a predominance of disruptive traffic (distance origin-to-destination of under 75 km), attempts will be made, rather than to build a number of bypasses, to design an infrastructure which channels long- and middle-distance traffic, assigning title to the old route to the Territorial Administration concerned.

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In localities on a route which, according to the Plan's objectives, may be for a dual carriageway or a road with elevated geometric characteristics, the study of the new route will be brought forward so as to prioritise sectors which may serve as town bypasses for the through-routes where the difficulties are most intense. A ring road will be proposed only where it is not possible to use the new route as a bypass, it is not programmed short- or medium-term, and there is a high level of conflict.

- g) Existing through-roads in the State Highway Network (RCE) will be upgraded to make their urban character compatible with the vehicle traffic running through those centres. Particular care will be taken with the design of measures intended to improve safety conditions for drivers and pedestrians.
- h) On state sectors or trunks which have lost their long-distance function and where there are a number of difficult town bottlenecks which it would be difficult to resolve using state network design characteristics, a solution appropriate to the problems will be proposed, giving priority to capacity and safety over speed, with more urban characteristics.
- i) Construction of town bypasses, and work on through-routes and special sectors must be coordinated with the Local or Autonomous Regional Administrations, as applicable, to arrange transfer of ownership of those sectors, depending on their urban or suburban functionality.
- j) New trunk routes in urban or bypass situations must first consider their functional necessity against the risks of promoting urban sprawl. With that in mind, coordination will be sought with other Administrations, and in particular with the Local Authorities.
- k) The programming of urban projects must be channelled through adequate cooperation mechanisms with the Administrations which have the authority for transport and territorial planning in that area, in line with urban mobility guidelines. Such action must systematically incorporate measures fomenting mobility other than by private vehicle, such as bus and BUS/HOV lanes, deterrent parking or bicycle and pedestrian routes. Any measure to increase general traffic capacity must be duly justified in terms of its compatibility with the PEIT-2020 objectives on urban mobility.
- l) Upgrading of existing network conditions to appropriate parameters, including replacement of infrastructure components. With this in mind, it is planned to increase the budgetary allocation to 2% of the assets value, and to use other financing systems provided for in our contracting regime. Management procedures will also be developed which allow for on-going monitoring of the state of the road components, the scheduling of actions, and an assessment of the efficiency of expenditure. The Ministry of Public Works and Transport may also commission external audits for independent evaluation.
- m) Action to deal with sectors where accidents are concentrated, and preventive activities to secure the Community and PEIT objective of cutting the accident rate. This objective will include the introduction of road safety audits for projects as well as for the network in service.
- n) The development of advanced systems (ITS) of traffic management, and incidents occurring on the roads, with the launch of Control and incident management Centres. These Centres will be run jointly with the Directorate-General of Traffic in the Ministry of the Interior (the DGT) and the Autonomous Communities.

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- o) The progressive introduction of new user services based on the deployment of ITS in the network, in coordination with the DGT and the Autonomous Communities.
- p) Installation of a system of fixed or dynamic weighbridges on the highway network for overweight controls, in coordination with the DGT and other competent Administrations.
- q) To deal with the foreseeable demand for public road transport services, along with the remaining modes and with the networks of other Administrations, to provide adequate safety conditions and service levels.
- r) The development of intermodality in passenger and goods transport, creating suitable access to modal interchange nodes and, along with the route networks of other Administrations, ensuring accessibility to the territory as a whole.

5.2.2. Rail

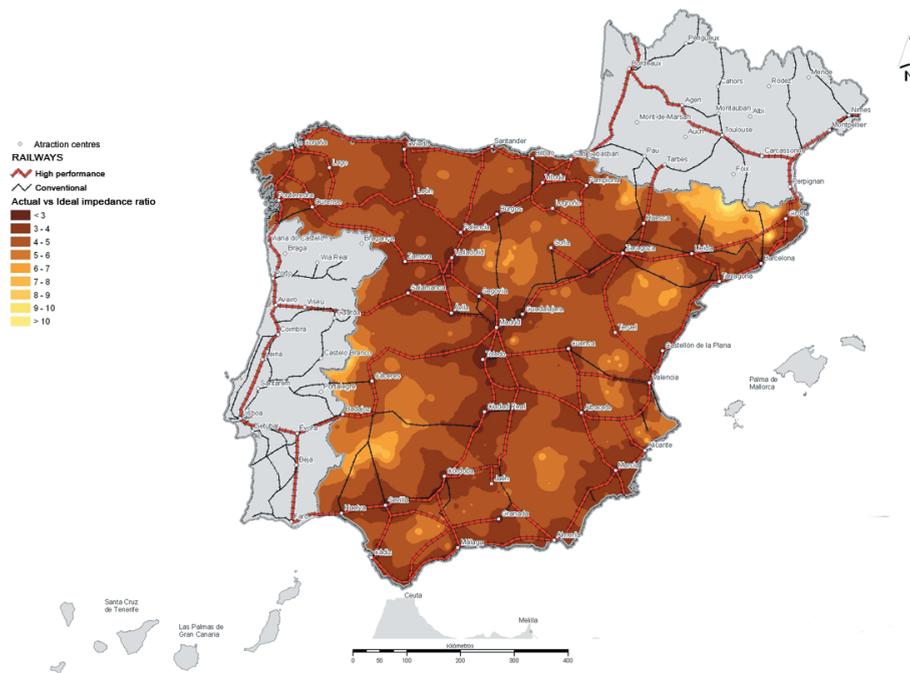
- a) Consolidation of the new rail model inspired by the European Union's rail reform, in the framework of a policy of clear support for upgrading rail transport. The new model involves the separation of the infrastructure and service managements, the creation of a system of licences for rail companies, an opening up of access to national and international transport for new rail operators, the strengthening of the rail administration and the creation of an authority to regulate the sector's activity.
- b) Promotion of a central role for rail in the intermodal system for the transport of passengers and goods on trunks and corridors with high demand.
- c) Along with public transport by road, rail will also assist in accessibility throughout the country, with regional transport services adapted to the characteristics of each area (population density, mobility, activities ...) in line with the priorities and the allocation of resources by the competent Territorial Administrations.
- d) The creation of a high-performance network in line with Community Directive 96/48/CE on the interoperability of European high-speed rail, transferred into the domestic provisions in Royal Decree No. 1191/2000. The network is to be designed basically for mixed traffic, including cross-border rail links. Particular attention will be paid to improving transversal links with potentially high traffic, and to situations of inadequate regional accessibility. On routes where traffic volumes and characteristics require, the new infrastructures will be exclusively for passenger traffic.
- e) To set a target for a reduction in total travel times for all interurban links, to be reached in stages according to the planned development of the network. The use of variable-gauge resources, combined with the enhancement of adequate connections between high-speed rail, regional rail and bus services, will make it possible to extend the territorial range of time-cutting induced by infrastructure investment implemented in each phase of the Plan. The resulting times must, within the Plan's horizon, place rail in a competitive position in relation to air transport in links using the high-speed trunk routes for distances of less than 700 km. On other routes, the reference for improved travel times will be that for private vehicle transport over distances of more than 300 km.

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FIGURE 17. Changes to territorial accessibility arising from the actions in the plan

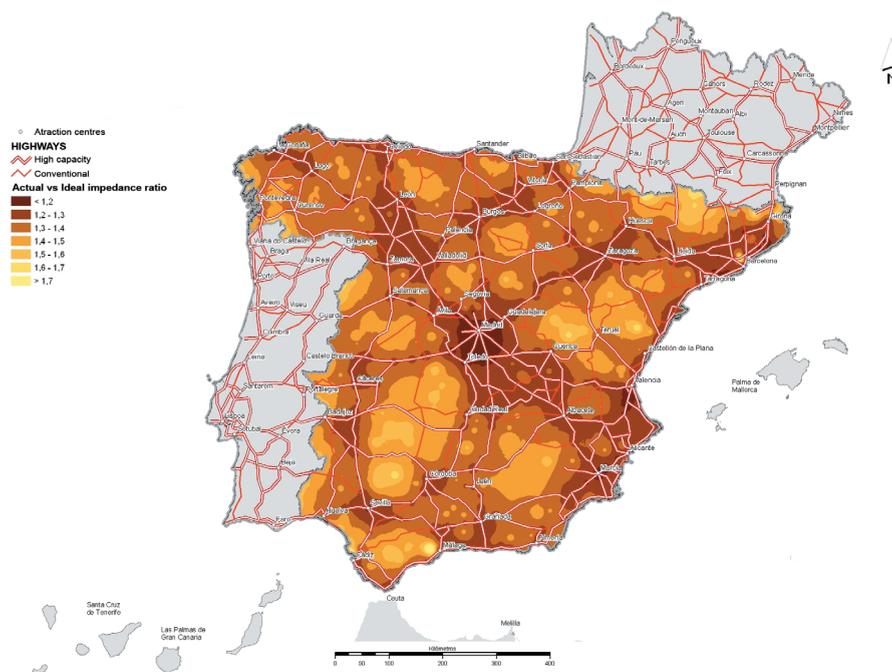
A) RAIL ACCESSIBILITY

The resulting improvement is generalised and very significant both quantitatively, with an index of more than 50% in a large part of the territory, and qualitatively, the improvements extending to virtually all areas.



B) ROAD ACCESSIBILITY

Although the starting point for roads is much less unbalanced, here too the improvement arising from the proposals in the Plan can be seen. The disparities from one territory to the other are reduced notably, the greatest advances being secured precisely in those areas with less accessibility.



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- f) A strategy to enhance the involvement of rail transport in the movement of medium- and long-distance cargo, by improving the levels of quality offered by rail, according to the cargo market demand. Here, rail will be promoted in new fields of goods transport, facilitating access by new rail operators and encouraging cooperation between the rail operators and other national and overseas modes, with the active participation of loaders from the industrial sector and from services. Backing for the activities of rail operators to improve their introduction into the multimode logistic chains.
- g) Definition of a rail goods transport network which meets the requirements of European Directive 2001/16/CE on the interoperability of the conventional rail system, including linear infrastructures and installations, which will provide sufficient capacity in the most important corridors, separated as far as possible from commuter services in large metropolitan areas, and with good accessibility to the nodes and logistic platforms and to the European rail network. In the framework of the intermodal goods plan, a network will be set up of logistic rail nodes to promote intermodality with sea and road transport.
- h) Definition of a clear gauge-conversion strategy for the conventional network, consistent with the development of rail structure and with the aim of ensuring that interoperability with the European system. Integration of gauge-change action into the strategy for developing European rail network interoperability, considering other systems and subsystems for equipment, installations and operating regimes.
- i) Maintenance of high safety standards in rail transport throughout the process of migration toward a European safety system, setting up a national authority in the field as part of the European safety agency. Review of the procedures for the investigation of rail accidents, to make them equivalent to those in other modes, such as air.

FIGURE 18. Average daily trains in the RENFE (Spanish Rail) Network



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FIGURE 19. The Spanish rail network. Safety and blocking systems



- j) Priority attention to maintenance of the rail system, improving its management by providing the necessary resources, assessed in terms of safety and efficiency criteria, and the introduction of an up-to-date system of integrated and preventive maintenance.
- k) To guarantee adequate levels of network safety by means of proper conservation and modernisation, and to ensure that this is maintained over time. In the short term, to correct the existing decapitalisation of the conventional network, a number of programs will be started for priority action in matters of conservation, and the elimination of level crossings and the upgrading of their safety standards.
- l) Definition of major projects in the urban field to enhance the incorporation of rail into its surroundings. These actions will be associated with the large investments in the rail network, retaining the central location of stations, ensuring the continuity of the public system for the transport of passengers, with the functional separation of goods traffic. With this in mind, adequate accesses to rail from public transport will be created in cities, and suitable connections will be developed with other major passenger interchange facilities such as airports and bus stations.
- m) The commuter networks will be completed in the large metropolitan areas and large cities, and priority attention will be given to the modernisation of rolling stock. There will be progressive advances in the functional specialisation of networks destined for commuter and goods traffic in the large metropolitan areas. Finally, in the institutional realm, greater involvement in their management by the Autonomous Communities and Transport Authorities concerned will be promoted.

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- n) Definition of a new framework for the development of regional rail services, based on coordination between the operators and the Autonomous Communities involved, and between these services and their long-distance counterparts in terms of timetables and charges.
- o) Establishment of intermediate temporal horizons for the development of the network and the patterns of services, drawing up sector rail plans every eight years to ensure the complete functionality of the action undertaken and of the network as a whole, and which allows operators to define their strategies.
- p) Closed, unused lines will be analysed with a view to placing a value on these public assets according to their potentialities.

5.2.3. Sea transport and ports

- a) In the planning and management of the port system, to maintain criteria of profitability, so that each port generates the resources necessary to attain its economic-financial equilibrium, including compensation for the possible provision of services of public interest.
- b) To stimulate progressive specialisation, and cooperation between ports, and the strengthening of the mechanisms for cooperation with other European ports, aimed at ensuring a good positioning of the main Spanish ports in the processes of concentration and hierarchical organisation under way in Europe.
- c) To develop ports as a key element of intermodality, favouring the integration of the main ports into the large international transport chains and the new "sea motorways".
- d) Development of short sea shipping, at the national and European levels, by developing specific infrastructures and management systems.
- e) Suitable development of land access to ports (rail, road and pipelines) and, in particular, by rail to ports with higher traffic and an intermodal vocation, using *ad hoc* management and joint-financing systems, open to private sector participation.
- f) To stimulate free competition in the provision of port services where the demand is sufficient, including access services from the land side, with the development of specific monitoring observatories, and creating adequate systems to supervise compliance with the legislation in place.
- g) The introduction of complementary uses in ports will be conditioned by the functionality of the port uses themselves and, where applicable, will be developed in cooperation with the autonomous and local Administrations from a standpoint of their consistency with local urban planning strategies.
- h) Development of tools and measures to upgrade and modernise the merchant fleet, playing particular attention to safety and the environmental component of sea transport.
- i) Improved navigational safety, with the introduction of new systems to monitor and control sea traffic.

STRATEGIC INFRASTRUCTURES AND TRANSPORT PLAN **PEIT****5.2.4. Air transport**

- a) To order the airport system, submitting any declaration of a new airport of general interest to a detailed prior review of its compatibility with the PEIT objectives.
- b) To move forward in the planning and management of the airport system according to criteria of profitability so that, progressively, each airport is able to generate the resources necessary to attain its economic-financial equilibrium, including possible compensation for the provision of services of public interest.
- c) Reinforcement of safety inspections by the aeronautical authorities, and of airport security conditions and controls.
- d) Enhanced airport operability with the installation of precision approach systems or raising the category of existing systems when a 5% increase in operability is considered possible.
- e) Improved service quality not just for aircraft (parking, fingers, maintenance zones and hangars, etc.) but also for passengers (terminal areas, check-in desks, attention for persons of reduced capacity, shopping areas, etc.) and for airlines (space for offices and passenger services, aeronautical development zones, etc.).
- f) Environmental sustainability, with particular concern for noise and how it is dealt with.
- g) To open up airport management to the participation of regional and local authorities and other institutions.
- h) A committed use of charges policy as a management tool to optimise revenues and improve the service offer.
- i) To promote the progressive specialisation of Spanish airports, exploiting the comparative advantages in each case. The airports at Barajas (Madrid) and El Prat (Barcelona) must together develop their world traffic potential, as gateways to Europe providing alternatives to the other large European airports, most of which suffer from serious congestion problems. The remaining Spanish airports, particularly those in the larger metropolitan areas and cities, must foment their role in services within Europe, making the most of the opportunities offered by the new liberalising drive in the sector.
- j) To set up mechanisms to correct over-centralisation, particularly at Barajas, which may exhaust its new capacity in the medium term, either by developing demand management strategies throughout the airport system, or by cooperating with other modes of passenger transport, particularly medium-distance rail.
- k) To promote the incorporation of the airports into the intermodal system of public transport by means of adequate access, specific infrastructures to facilitate interchange, and public transport services which ensure effective connection with the main urban centres within an airport's area of influence and with the passenger transport nodes in the area (rail and bus stations).
- l) To adjust future development proposals for facilities intermodally, so as not to program actions exclusively according to the prospects for growth in air transport demand, tuning them to action in the other modes of transport, especially for shorter-distance services.

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- m) To enhance the insertion of the airport system into the intermodal goods transport chain, promoting coordination with other modes, particularly at the airports which are specialising in this activity.
- n) To encourage air navigation systems to adapt to demand, in line with international policies and guidelines (the ICAO, the European Union, EUROCONTROL) to meet present and future air transport requirements.
- o) To promote the international expansion of Spanish air navigation equipment, services and systems as part of the European Union's Initiative to create a Single European Sky and its associated strategic programs, such as SESAM, enhancing the current technological leadership in these areas, to this end fomenting Spanish participation in technological innovation programs like EGNOS or Galileo (satellite navigation) and expert air traffic control systems.

5.2.5. Transport operators

- a) To develop suitable technical conditions for intermodality, encouraging the technical harmonisation of combined transport, in line with initiatives undertaken by the European Union.
- b) Particularly in the EU, to promote social and fiscal harmonisation of the various forms of transport, facilitating cooperation between them and setting up systems of balanced competition.
- c) Backup for existing operators to expand into other modes of transport, as well as cooperation among modal operators, aimed at promoting intermodal goods and passenger transport.
- d) The creation of a specific program for backup to the development of intermodal chains making it possible to fund the initial startup phases of new services, as a complement to the European Marco Polo program.
- e) To encourage operators in the use of tools for management and operational assistance made available by the new technologies (ITS).
- f) Development of a regulatory framework which is progressively made more uniform among the various modes of transport, facilitating the introduction of intermodal transport contracts (goods) and integrated ticketing systems (passengers).

5.2.6. R&D+i

- a) To guarantee the stability of resources assigned to R&D+i programs in the transport field, bringing them progressively toward about 1.5% of the Ministry of Public Works and Transport annual investment.
- b) To integrate all the aid for research in the National R&D Program, structuring the Program contents as a complement to the EU's Framework Program.
- c) To facilitate use by the sector of the results of research, paying increased attention to actions for the dissemination of R&D projects, and a specific program for their exploitation and disclosure.

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- d) To review the systems for the selection of priority lines, evaluation of proposals, the monitoring of R&D projects, and a final assessment of results, to enhance the coherence of the process and the fulfilment of this program's objectives.
- e) To structure transport research by developing a state network of research centres, promoted by the Centre for Studies and Experimentation in Public Works (CEDEX), facilitating cooperation and mobility among centres, the growth of research teams with greater reach, and supporting the active involvement of these centres in the European and international scientific community.
- f) To create a new line of investment for "innovation in transport", making it possible to promote the application of novel measures and research on a pilot basis in the transport system. This line will include actions like the startup of a "state strategy to promote healthy means of transport" (bicycle and walking) or encouraging measures for the management of demand in a variety of fields.

