## CNC

COMISIÓN NACIONAL dE LA COMPETENCIA

## "REPORT ON COMPETITION IN RAILWAY FREIGHT

 TRANSPORT IN SPAIN"
## TABLE OF CONTENTS

EXECUTIVE SUMMARY ..... 4
I. INTRODUCTION ..... 7
II. LEGAL AND ECONOMIC CHARACTERISTICS OF RAIL FREIGHT TRANSPORT IN SPAIN ..... 9
II.1. Regulation of the rail freight sector ..... 9
II.1.1. The gradual liberalisation of the sector in the EU ..... 9
II.1.2. National rules ..... 15
II.2. Economic characteristics of rail freight transport in Spain ..... 31
II.2.1. Rail infrastructure ..... 35
II.2.2. Rail freight transport ..... 50
II.2.3. Access to rolling stock ..... 60
II.2.4. Repair and maintenance of rolling stock ..... 69
II.2.5. Additional, complementary and ancillary services ..... 74
III. INDICATORS OF COMPETITIVENESS IN THE RAIL FREIGHT MARKET
IN SPAIN ..... 79
III.1. The Spanish rail network has a different rail structure from other European countries and less intensive use of the rail infrastructure ..... 79
III.2. Rail represents a small proportion of the total in Spain, and in the last decade that proportion has declined more than in other countries ..... 81
III.3. Spain is one of the countries where new companies have least penetrated the rail freight transport market in relative terms ..... 84
III.4. According to various indicators, the Spanish rail incumbent is relatively inefficient ..... 85
IV. FACTORS LIMITING THE LEVEL OF COMPETITION IN THE SPANISH RAIL SECTOR ..... 95
IV.1. Factors relating to infrastructure ..... 95
IV.1.1. International isolation ..... 95
IV.1.2. Slow freight movement on the rail infrastructure ..... 96
IV.1.3. Smaller average size of trains than in the main competitor countries ..... 96
IV.1.4. Underdeveloped intermodality ..... 97
IV.2. Factors relating to infrastructure administration and management and third party access to service provision on infrastructure ..... 99
IV.2.1 Terminal management ..... 99
IV.2.2. Additional, complementary and ancillary (ACA) services. ..... 100
IV.2.3. Capacity allocation ..... 102
IV.2.4. Management of passenger and freight traffic ..... 103
IV.3. Factors relating to the regulation of access to and pursuit of rail activity ..... 104
IV.3.1. Licences ..... 104
IV.3.2. Safety certificate ..... 104
IV.3.3. Approval of rolling stock ..... 105
IV.3.4. Driving personnel training and permits. ..... 106
IV.3.5. Charges ..... 108
IV.4. Specific advantages of RENFE-Operadora ..... 112
IV.4.1 "Grandfather" clauses ..... 112
IV.4.2 Availability of rolling stock ..... 113
IV.4.3. Rolling stock maintenance and repair services ..... 114
IV.4.4. Business structure and public financing ..... 115
IV.4.5. Links with ADIF and the Ministry of Development ..... 118
IV.4.6. Links between RENFE-Operadora and other competitor companies ..... 120
IV.5. An underdeveloped CRF ..... 120
V. CONCLUSIONS ..... 122
VI. RECOMMENDATIONS ..... 126
VII. RENFE-OPERADORA'S ASYMMETRICAL ADVANTAGES ..... 131
ANNEX: EXPERIENCES OF RAIL FREIGHT TRANSPORT LIBERALISATION IN THE LARGEST ECONOMY EUROPEAN COUNTRIES ..... 135
Germany ..... 135
France ..... 136
The United Kingdom ..... 137
Italy ..... 138
BIBLIOGRAPHY ..... 140

## REPORT ON COMPETITION IN RAIL FREIGHT TRANSPORT IN SPAIN

## EXECUTIVE SUMMARY

- Liberalisation of rail freight transport began at European level in 2001, with approval of the "first railway package". In Spain it took the form of approval of the Rail Sector Act (Ley del Sector Ferroviario or LSF) in 2003 and the opening of the market to competition from 2005. However, eight years after liberalisation, new operators have still only penetrated the market to a very limited extent and rail has lost ground to other modes of freight transport in Spain, and currently represents a much smaller proportion than in other European countries.
- In quantitative terms, the transport sector represents 5\% of GDP and $4.8 \%$ of the jobs total in the Spanish economy. Further, on a qualitative level, transport is a strategic sector in so far as it is vital in the development of other sectors. Optimal use of the various modes of transport is, therefore, crucial if the economy as a whole is to be competitive.
- For those reasons, in March 2012 the National Competition Commission (Comisión Nacional de la Competencia or CNC) publicly announced its intention to conduct a study on competition in rail freight. Over the investigation period, the CNC held numerous consultations with public and private stakeholders, existing or potential participants in the rail transport market, and checked its preliminary results and findings against some of those stakeholders. The study makes 9 groups of recommendations, divided into a total of 26 detailed recommendations, directed at the Spanish Government as the regulator of the rail transport system on the General Interest Rail Network (Red Ferroviaria de Interés General or RFIG).
- Virtually all rail freight in Spain is carried on the State-owned network (the RFIG), although there are also networks owned by the autonomous communities. The study focused on the conditions for competition on the RFIG, where freight transport was liberalised in 2005. The RFIG freight transport model is based on the separation of infrastructure management from service provision. Administration of the infrastructure is entrusted exclusively to the Railway Infrastructure Administrator (Administrador de Infraestructuras Ferroviarias or ADIF), with the exception of the public interest ports, which are the responsibility of the port authorities, and the international (UIC) gauge line between Perpignan and Figueras which is administered by the concession holder TP Ferro. The transport service must be provided, in competition, by the rail companies, prominent amongst which is RENFE-Operadora, successor to the former monopoly holder, RENFE. The Railway Regulation Committee (Comité de Regulación Ferroviaria) is the public body responsible for ensuring diversity of supply.
- The report identifies and analyses in detail the competition structure of the main markets and activities involved in rail freight: infrastructure, the rail freight service, the availability of rolling stock, maintenance and repair of rolling stock and the provision of services at rail terminals. The structure of those markets reveals the preponderant position of the incumbent, RENFE-Operadora, apparent from a market share of nearly $85 \%$ of rail freight and from its predominant position in the related activities necessary for provision of the transport service: the availability of rolling stock and maintenance and repair services. Services at terminals are provided on a practically exclusive basis by ADIF, which administers most of the infrastructure.
- The study compares the rail freight market in Spain in relation to other countries. It confirms the relatively low proportion which rail represents in Spain compared to all other forms of freight transport and the relative decline in that proportion in recent years, which has been steeper in Spain than in other European countries. The comparison does not show, however, that this is due to a relative dearth of rail networks. It does nevertheless highlight the peculiar nature of the Spanish network which, with three different gauges, raises issues of interoperability with the countries in central Europe. The indicators also show that Spain is trailing other European countries in terms of the degree to which new entrants have penetrated the sector and the level of efficiency of the incumbent operators.
- With the foregoing analysis as its starting point, the report identifies five groups of factors which are holding back competition in rail freight in Spain.
- First, the special characteristics of Spanish rail infrastructure contribute to isolating the Spanish market from Central European markets, by slowing the speed of trains and limiting their length, and reducing the intermodality of rail with maritime transport. The report indicates that, in order to reduce those problems, the cost-benefit analysis used in planning infrastructure and investment needs to incorporate considerations relating to competition in the markets.
- Secondly, the report identifies a series of factors associated with infrastructure administration and management. There are some factors which reduce the incentives for new operators to enter and expand in the rail sector, such as the opening dates and timetables of rail terminals, the lack of regulation of the additional, complementary and ancillary services provided at terminals, the low priority given to economic criteria in allocating infrastructure capacity and ADIF's dual role as the single infrastructure administrator and the incumbent provider of those services. It therefore recommends improving how those tasks are carried out.
- Thirdly, other barriers were identified concerning regulation of access to and the pursuit of rail activities. A series of permits have to be obtained in order to operate in the sector (railway undertaking licence, safety certificate and approval of rolling stock and drivers) which involve significant costs, particularly for new rail operators, and are time-consuming. Additionally, there are charges for infrastructure use which, as currently configured, impede the entry of new
companies. Therefore, recommendations aim at ensuring that the requirements for accessing rail freight activity in Spain comply with the principles of necessity, proportionality, transparency and nondiscrimination. The report also recommends making changes to the charging regulation, so that they incentivise efficient use of the networks and foster effective competition, and also indicates that charges should penalise any strategic practices by companies when reserving capacity.
- Fourthly, the report highlights a series of advantages which the system gives to RENFE-Operadora. These are the most significant factor influencing effective competition in the market and make RENFE-Operadora's position unassailable by the other rail companies. Those advantages include a number of regulatory advantages, such as the "grandfather clauses" contained in the Rail Sector Act and in the capacity allocation rules. Other advantages derive from the non-replicable resources available to RENFE-Operadora, such as Iberian gauge rolling stock, the assets for maintaining and repairing that rolling stock and the public funding it receives. There are also advantages relating to access to information and the ability to influence the infrastructure administrator and the system regulator, in so far as both RENFE-Operadora and ADIF are attached to the Ministry of Development. That link makes the existence of competition in the market less credible in the eyes of new entrants. The report therefore contains a series of recommendations which seek to eliminate or mitigate, as the case may be, the barriers described above, which include giving legal, accounting and functional independence to RENFE-Operadora's business units and uncoupling them from the Ministry of Development and the infrastructure administrator.
- Lastly, the report notes the rudimentary nature of the figure of the railway regulator, which currently has no powers to impose penalties and no legal personality, is dependent on the Ministry of Development for resources and is under-resourced. The report therefore recommends taking the opportunity of the changes planned by the Government with the creation of the National Commission for Markets and Competition (Comisión Nacional de los Mercados y de la Competencia) to increase the role of the railway regulator in the market.


## I. INTRODUCTION

(1) The study analyses the extent to which there is effective competition in rail freight in Spain with a view to making recommendations to improve the competition conditions for provision of the various services comprising that activity, for the benefit of final users.
(2) On the State-owned network ${ }^{1}$, rail freight was liberalised in formal terms in Spain by the Rail Sector Act 39/2003, which came into force on 1 January 2005. However, more than eight years after that formal liberalisation, there has been no appreciable real liberalisation of the sector. Only seven undertakings operate on the RFIG, and RENFE-Operadora, the public enterprise which inherited the former rail monopoly (and the current monopoly holder in national rail passenger transport) maintains a market share close to $85 \%^{2}$. Alongside this, rail has been losing ground to other means of freight transport, making Spain today one of the countries in the EU-27 where rail has the lowest share of the market.
(3) The National Competition Commission has analysed rail freight on various occasions. In particular, the reports on draft legislation "IPN 30/09, Omnibus Royal Decrees, Rail Sector" and "IPN 31/09, Omnibus Royal Decrees, ADIF Statute", found that there were possible barriers to entry relating to the requirements to obtain a railway undertaking licence and the persistence of certain advantages in the regulations which favoured RENFE-Operadora, and analysed the opening up of complementary and ancillary services. More recently, the CNC Position Report on Royal Decree Law 22/2012 continues to note the existence of entry barriers in the market and advantages favouring RENFE-Operadora.
(4) Against that background, this report seeks to identify possible barriers persisting in the rail freight market which should be removed in order to achieve effective competition in the market. Furthermore, Government's plans in coming years focus on infrastructure investment on railway sector ${ }^{3}$. Therefore, it becomes even more important to analyse the cost-benefit ratio and the impact on competition of any decision relating to infrastructure, and this report is intended to help do that.
(5) The report is therefore structured as follows. Chapter 2 defines and describes the rail freight market from a legal and economic perspective. Chapter 3 analyses the

[^0]indicators of competition in the rail freight market in Spain. Chapter 4 analyses the factors restricting competition in the market and their economic effects. Lastly, following the conclusions, it makes a number of recommendations intended to eliminate or reduce the barriers identified.
(6) For the purposes of writing this report, the CNC contacted the operators and institutions in the rail sector in Spain and other actors operating in passenger and freight transport. So that it could involve all the relevant stakeholders, on 8 March 2012 the CNC published a press release announcing the start of the study, setting out its initial concerns relating to aspects of competition in rail freight and inviting collaboration by any operators and institutions who wished to provide information or their vision for the sector. Since then various interviews have been carried out and information has been collected from the Ministry of Development, the Railway Regulation Committee, the infrastructure administrators, the rail companies and other actors, of interest to the CNC because they are stakeholders in the market.
(7) This report was approved by the Council of the National Competition Commission (CNC) at its session on 8 May 2013, in exercise of its consultative powers under article 26.1 of the Spanish Competition Act 15/2007 of 3 July (Ley de Defensa de Competencia - LDC). That article establishes the CNC's duty to promote effective competition in the markets by means of actions such as promoting and conducting studies and research into competition, making proposals for liberalisation, deregulation or regulatory amendment and producing reports on situations which hinder the maintenance of effective competition in the markets arising from the application of legal rules.

## II. LEGAL AND ECONOMIC CHARACTERISTICS OF RAIL FREIGHT TRANSPORT IN SPAIN

## II.1. Regulation of the rail freight sector

## II.1.1. The gradual liberalisation of the sector in the EU

(8) Although the drive to liberalise rail transport did not occur in Europe until the beginning of the last decade, the 1990s saw approval of the first regulatory measures intended to liberalise operation of the sector. Until then, the rail services markets in the Member States operated as monopolies, based on public companies very much under the auspices of the State.
(9) Unlike the US vertical integration model, in which the infrastructure administrator and the rail service operator can operate under the same commercial management, the EU opted for a model involving vertical separation and guaranteed network access. The European model faced the problem of having to integrate national markets each under the monopoly of its vertically integrated public operator, in a context in which the rail network is a natural monopoly. The Community legislature therefore elected to confer administration of the national networks on a single manager, with an obligation to allow the rail operators access to that infrastructure on objective, transparent and non-discriminatory terms and subject to regulation. The high cost involved in building and managing a network is thereby borne exclusively by one company which is entrusted with construction, maintenance and management of the network. Measures were introduced at the same time aimed at integrating national markets and introducing competition between rail transport operators.
(10) Directive 91/440/EC laid down the initial groundwork for future liberalisation, by requiring the separation of accounts between infrastructure administration and the rail service and that both should be financially autonomous from the State. The main features of the Directive were:

- Management independence of rail companies: Member States shall take the measures necessary to ensure the independence of rail companies as regards management, administration and internal control over administrative, economic and accounting matters. Rail companies must have assets, budgets and accounts which are separate from those of the State. The Directive also establishes voluntary legal separation.
- Separation between infrastructure administration and the rail transport service: Member States must ensure separation between infrastructure administration and transport operations, maintaining separate profit and loss accounts and balance sheets ${ }^{4}$. Public funding must also reflect that

[^1]separation. Funds intended for one activity may not be transferred to the other.

- Access to rail infrastructure: the rail companies covered by the Directive shall have access to the infrastructure in all the other Community countries, in order to provide international rail passenger and freight services. The Directive establishes that the rail companies will pay a fee for infrastructure access.
- It envisages that the State will assume the historical indebtedness of the rail companies, thereby improving their financial structure.
(11) Directives 95/18/EC and 95/19/EC were approved in 1995, developing and implementing a number of aspects of the earlier Directive. Directive 95/18/EC establishes a railway undertaking licence, valid throughout Community territory, and regulates the terms for granting licences to rail companies which provide international services ${ }^{5}$ and the requirements which companies must satisfy in order to obtain a licence ${ }^{6}$. Directive 95/19/EC develops and implements infrastructure access, defining the principles and procedure for allocating infrastructure capacity and levying the corresponding charges for its use, establishes the requirement for a safety certificate for rail companies and requires the appointment of an independent body to hear disputes relating to capacity allocation and the levying of charges.
(12) The following decade saw an expansion of the, until then, very sparse regulatory measures adopted in the rail sector, culminating in the "railway packages" (of 2001, 2004 and 2007) and approval of various White Papers, establishing the general strategy for the European rail market.


## First Railway Package (2001)

(13) In general, this package sought to ensure access on a non-discriminatory basis to the trans-European rail network, greater separation between infrastructure administration and provision of the transport service, and to create a rail regulator. The first package comprised four Directives.
(14) Directive 2001/12/EC, amending Directive 91/440/EC, sought to ensure independent management of the infrastructure administrator and to liberalise international freight transport services. In relation to the first objective, the structural and institutional separation between infrastructure management and operation remains voluntary, with mandatory separation of the basic functions, which cannot be carried out by a rail service provider ${ }^{7}$. In relation to opening up the market, two deadlines were set - 2003 for the 50000 km of railway comprising the Trans-European Rail Freight Network and 2008 for the whole European rail network.

[^2](15) Directive 2001/13/EC, amending Directive 95/18/EC, extended the licensing system to rail companies which provide national services, thereby making the licence valid throughout Community territory.
(16) Directive 2001/14/EC, amending Directive 95/19/EC, regulates allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification.

- It provides that capacity will be allocated by an independent body, which may be the infrastructure administrator, provided it is independent of any rail operating company. The main aspects of capacity allocation will be contained in a document referred to as the network statement ${ }^{8}$.
- The infrastructure administrator is given power to set charges, provided it is independent of the rail companies.
- It requires the creation of a regulatory body independent of the stakeholders in the market in each country, to hear the most significant access disputes which arise.
(17) Subsequently, Directive 2001/16/EC on the interoperability of rail transport was approved.


## Second Railway Package (2004)

(18) Also in 2001, in September, the Commission presented the broad outline of the EU's transport policy for the next decade, which was set out in the Transport White Paper "European transport for policy for 2010: Time to decide", which in relation to rail transport, envisaged:

- Revitalising the railways, recognising their strategic importance and advocating the introduction of competition between rail operators. It proposed harmonisation in the fields of interoperability and safety, once the market had been opened.
- Creation of a network dedicated exclusively to freight.
- Stimulating intermodality.
- Adopting general measures for all means of transport aimed at their sustainable development, the development of users' rights and obligations and an efficient charging policy.
(19) As a result of that White Paper, a second package was approved three years later, comprising three Directives, focusing on measures relating to safety,

[^3]interoperability and the opening up of freight transport. The ERA ${ }^{9}$ was also created, with a safety and interoperability role.
(20) Directive 2004/49/EC focuses on safety on the Community railways, in the form of implementing a common approach to safety and the creation of a common system governing the issuing, contents and validity of safety certificates. Accordingly, on the one hand safety certificates must require the rail companies to have a safety system and to be able to satisfy the technical specifications for interoperability, and on the other the Directive establishes mutual recognition between EU countries for rail companies' safety certificates and the infrastructure administrators' safety authorisations issued by the various Member States. The Directive also obliges each State to ensure that train drivers, on board train staff and staff of the infrastructure manager who perform vital safety tasks have access to training.
(21) Directive 2004/50/EC is intended to achieve interoperability between the European rail systems, by improving the Technical Specifications for Interoperability (TSIs).
(22) Directive 2004/51/EC modified the time limits under Directive 91/440/EC, bringing forward the liberalisation of international rail freight services on the trans-European network, requiring liberalisation before 1 January 2006, and a year later for those within each country. It also proposed 2010 for opening up the market for international rail passenger transport.

## Third Railway Package (2007)

(23) In 2006, the Commission adopted a report on the implementation of the first railway package in which it drew attention to the fact that the gradual opening up of the market had brought new dynamism to rail freight transport, but highlighted the need to take further liberalisation.
(24) Whilst the first two packages concentrated on opening up rail freight transport, this third package focused on liberalising international passenger transport.
(25) Directive 2007/58/EC proposed 1 January 2010 as the deadline for liberalising international rail passenger transport. However, no deadline was specified for the opening up of national passenger transport.
(26) Directive 2007/59/EC established the requirements for the certification of train drivers, which requires a licence valid throughout EU territory and one or more certificates valid, exclusively, on the infrastructure and rolling stock indicated in the certificates.
(27) Within this third package, Regulation EC No 1370/2007 on public passenger transport services and Regulation EC No 1371/2007 on passengers' rights and obligations were also approved.
Directive 2012/34/EU (recast)

[^4](28) In 2011 the European Commission published a new White Paper, with the following main objectives in the rail field:

- Encouraging intermodality.
- Transferring $30 \%$ of freight transport by road to the railways and inland waterways by 2030.
- Achieving a single vehicle type authorisation and a single rail company safety certificate by strengthening the role of the ERA.
- Developing an integrated approach to managing freight corridors, including track access charges.
- Ensuring effective, non-discriminatory access to the rail infrastructure, by means of structural separation between infrastructure management and the provision of services.
(29) Directive 2012/34/EU (recast) was approved on 21 November 2012, establishing a single European railway area and regulating, amongst others, matters relating to infrastructure access, licences, the setting of charges, infrastructure capacity allocation and regulatory bodies.
(30) It also establishes that rail companies must be managed according to the principles applicable to commercial companies, irrespective of how they are owned, and requires them to have separate profit and loss accounts and balance sheets for freight and passenger services. It also provides that funds received in respect of public services must be shown separately and may not be transferred to other services.
(31) Decision-making on train path allocation and decisions affecting charging, concerning the setting and levying of charges, are regarded as essential functions of infrastructure administrators ${ }^{10}$ (article 7).
(32) The Directive therefore brought together the earlier provisions and made a number of innovations, salient amongst which are the following three areas:
- Increasing competition: Making the terms for accessing the market more transparent and facilitating market access by means of:
- Improving access to related services such as maintenance facilities, terminals, information and ticketing facilities for passengers and freight.
- Establishing explicit rules on conflicts of interest and discriminatory practices in the rail sector.
- Requiring greater detail in network statements.

[^5]- Strengthening regulatory oversight: giving national regulators a more significant role, by means of measures such as:
- Extending the competence of those regulators to cover related services.
- Requiring that national regulators be independent of any public authority.
- Increasing the role of the national regulators in terms of penalties, auditing ${ }^{11}$, appeals procedures and ex officio investigatory powers, and establishing an obligation on European regulators to cooperate with each other.
- Enhancing the framework for public and private investment:
- Requiring long-term national strategies and multiannual contractual agreements between the State and infrastructure administrators (linking funding to actions and business plans). The aim is to achieve greater certainty in infrastructure development and incentives to improve its performance.
- Requiring more precise charging rules and improving implementation of the charging principles, which should bring about a decrease in access charges in many Member States. Those new rules should attract more private investment and interoperable green technologies.


## Outlook for the future

(33) On 30 January 2013 the Commission announced the start of a process to adopt a fourth package aimed at higher quality in the provision of rail transport services, and to this end it proposed opening up competition in the national passenger markets. The Commission is working on the following areas:

- Standards and authorisations: the aim is to reduce the administrative costs which the rail companies have to face and to facilitate the entry of new operators. It therefore proposes to convert the European Railway Agency into a "one-stop shop", responsible for issuing both safety certificates and the authorisations to market vehicles in the EU.
- Opening up national passenger rail services to competition from December 2019.
- Strengthening the infrastructure administrators, extending their role to include all the core tasks of the rail network (planning infrastructure investment, daily maintenance operations and setting timetables). The aim is to enhance their operating and financial independence from any transport

[^6]operator $^{12}$, so that in 2019 the rail companies, independent of infrastructure administrators, will have direct access to the inland passenger market.

- Stimulating greater dynamism in the rail sector by means of a skilled workforce.


## II.1.2. National rules

(34) Traditionally, the rail freight market in Spain was a monopoly held by the public company Red Nacional de Ferrocarriles Españoles (RENFE), created in 1941, which combined infrastructure administration and the provision of transport services. The objects of that public body were the construction and, where applicable, management of new rail infrastructure and any existing infrastructure within the competence the State expressly assigned to it by the Government.
(35) The Spanish Constitution gave the State competence in relation to the rail networks running through the territory of more than one autonomous community, and gave the autonomous communities an option to take over competence for railways with routes entirely within their territory. To date, only three autonomous communities have developed framework rail regulations: Catalonia (2001), the Basque Country (2004) and Andalusia (2006).
(36) At State level, Act 16/1987 on Land Transport (LOTT) was approved on 30 July 1987, and provided the general framework for the rail sector for a decade and a half and also served as supplementary legislation for the autonomous communities with no specific legislation.
(37) The first measures to liberalise the market were taken in Act 13/1996 on tax, administrative and social measures of 30 December, which set up the Rail Infrastructure Manager (Gestor de Infraestructuras Ferroviarias or GIF), a public undertaking responsible for building and managing rail infrastructure. According to its Statute ${ }^{13}$, the GIF had management autonomy and independence from RENFE although, like RENFE, it was attached to the Ministry of Development. RENFE held the monopoly over the operation of rail services, and had to pay the GIF a charge for using the infrastructure.
(38) However it was not until approval of the Rail Sector Act 39/2003 of $\mathbf{1 7}$ November that the process liberalising rail transport in Spain really began. The LSF transposed the first railway package, consolidated the model of vertical separation between infrastructure management and operation of the service and provided for the introduction of competition in operation of the service.

[^7](39) The LSF contains the process to liberalise passenger and rail freight transport in Spain. A time limit of three years was set for the liberalisation of freight transport to come into force. Transitional Provision Three of the LSF, on the other hand, provides that for national passenger transport, liberalisation would not take place until such time as the EU established a market opening regime. Until then, RENFE-Operadora would be entitled to operate the passenger transport services provided on the General Interest Rail Network (RFIG) ${ }^{14}$, as established in the LOTT. Once that market opening regime was imposed, RENFE-Operadora would retain the right to operate the network capacity it was using at that time and would be able to apply to be allocated further network capacity.
(40) The LSF integrated the GIF into the Rail Infrastructure Administrator (Administrador de Infraestructuras Ferroviarias or ADIF), a public enterprise responsible for managing and building the RFIG rail infrastructure. ADIF took over the competences of the GIF and its responsibilities were extended to include, amongst others, approving outline and construction projects for rail infrastructure, monitoring and inspecting the rail infrastructure managed by it, operating the assets owned by it, drawing up and publishing network statements and allocating infrastructure capacity to the rail companies. At the same time, RENFE became RENFE-Operadora, a public enterprise with a role in the provision of both freight and rail passenger transport services. The LSF also set up the Railway Regulation Committee (Comité de Regulacion Ferroviaria or CRF), the body responsible for ensuring diversity of supply in the provision of services on the RFIG and ensuring that those services were provided on objective, transparent and non-discriminatory terms.
(41) The LSF also regulated the regime applicable to metric gauge track ${ }^{15}$, which was significantly different from the general RFIG regime, in so far as on the narrow gauge track the public enterprise Ferrocarriles de Vía Estrecha (FEVE) still held a monopoly to manage the infrastructure and operate the service. However, FEVE was abolished from 1 January 2013, under Royal Decree Law 22/2012, infrastructure management and operation of the service on the narrow gauge track being integrated into ADIF and RENFE-Operadora respectively. From 1 January

[^8]2013, the narrow gauge track has used the same model as the rest of the State network.
(42) The current regulatory model for rail freight in Spain can therefore be described as follows.

## II.1.2.1 Distribution of competences in relation to rail infrastructure

(43) The Spanish regulations allow both publicly-owned networks, which can in turn be State or regional, and privately-owned networks.
(44) As the LSF indicates in its preamble, "several publicly-owned rail networks coexist in Spain, under the auspices both of the State and of the regions. Article 149.1.21 and article 24 of the Constitution provide that the State has exclusive competence over railways and land transport running through the territory of more than one autonomous community and the general regime for communications and over public works in the general interest or works whose construction affects more than one autonomous community. The State also has power to regulate the basic terms ensuring equality for all Spaniards in exercise of their constitutional rights and performance of their constitutional duties (article 149.1.1), to establish the bases and to coordinate overall planning of economic activity (article 149.1.13) and to regulate the State Treasury and public debt (article 149.1.14). Article 148.1.5, for its part, states that the autonomous communities can take over competences relating to railways running entirely within the territory of the autonomous community and on the same terms in relation to transport on those railways".
(45) The Ministry of Development is responsible for determining the specific railway lines forming part of the General Interest Rail Network (RFIG), which enables the Ministry both to include and exclude new rail infrastructure from the scope of the RFIG on general interest grounds, subject to reports from the autonomous communities concerned. If it is intended to include an element of infrastructure which runs entirely within the territory of a single autonomous community and has no connection with the rest of the network, the consent of the autonomous community concerned is needed for it to be included. Lastly, article 4 of the LSF establishes a duty of cooperation between the State and autonomous communities in relation to rail infrastructure owned by the latter, promoting interoperability between the various networks.
(46) In order to coordinate the actions by the autonomous communities and by the State in relation to rail and roads, article 11 of the LOTT created the Commission of Directorates General for Transport (Comisión de Direcciones Generales de Transporte), which meets periodically. According to the regulations, "it will act as the body for ordinary technical and administrative coordination between the various public administrations in relation to land transport, and will deliberate on any matters within the competence of its members which may affect the satisfactory functioning of the transport system. The Commission will also act as the support body and forum for prior discussion of any matters within the competence of the National Transport Conference (Conferencia Nacional de Transportes), which may delegate it to hear matters within its competence".
(47) In relation to privately-owned infrastructure, the LSF provides that the relevant administrative authorisation, granted by the Ministry of Development, must be obtained in order to establish or operate a privately-owned element of rail infrastructure running through the territory of more than one autonomous community (article 37 LSF). Privately-owned rail infrastructure can only be connected to the RFIG when expressly authorised by ADIF. Rail transport may take place on such privately-owned infrastructure exclusively on the owner's own behalf as an adjunct to other principal activities performed by the owner.
(48) The system comprising the RFIG is described below (sections II.1.2.2 to II.1.2.7), and specific reference is made at the end to the particular features of the regional rail systems (section II.1.2.8).

## II.1.2.2 Organisation and administration of the RFIG

(49) Administration of the RFIG is entrusted to ADIF, with the exception of the general interest ports connected to the RFIG, at which each port authority is responsible for administering the network, and on the section between Figueras and Perpignan managed by the concession holder TP Ferro. Network administration includes maintaining and operating the infrastructure (tracks, terminals and their ancillary elements) ${ }^{16}$, and managing their monitoring, movement and safety systems, and is a general interest service under article 19 of the LSF.
(50) The overall split of competences on the RFIG is as follows. The Ministry of Development has competence for the strategic planning of the rail sector, the general organisation and regulation of the system, granting licences and safety certificates and setting charges. ADIF (or the corresponding administrator), for its part, is responsible for approving outline and construction projects for infrastructure forming part of the RFIG, the construction and administration of rail networks on the RFIG, preparing and publishing the network statement ${ }^{17}$, allocating infrastructure capacity, providing additional and, where applicable, complementary and ancillary services, proposing its charges and levying charges.
(51) In relation to infrastructure planning and construction, the Ministry of Development is responsible for planning infrastructure forming part of the RFIG, and establishing and modifying railway lines (article 5 LSF ). The Ministry of Development is also responsible for deciding whether it or the infrastructure administrator should be responsible for constructing infrastructure (article 6.1 LSF). Both the Ministry of Development and ADIF (or the corresponding

[^9]administrator), subject to authorisation by the Ministry of Development, may delegate powers to contract railway works, under a cooperation agreement, to other public administrations, public law entities and firms or companies associated with or under the auspices of those administrations (article 6.4 LSF). Both the Ministry of Development and ADIF may also, subject to authorisation by the Ministry of Development, entrust the construction and operation of railway works to a wholly State-owned commercial company (article 6.5 LSF).
(52) Another special case is the railway infrastructure at general interest ports and airports. At general interest airports, article 36 of the LSF provides that ADIF is responsible for administering that infrastructure, whilst at general interest ports the port authority of each port is responsible (articles 36 LSF and 49 of the Rail Sector Rules (Reglamento del Sector Ferroviaro or RSF). In the case of general interest ports there is close cooperation between ADIF and Puertos del Estado (State Ports) ${ }^{18}$, embodied in a framework agreement on application of the LSF at general interest ports. That framework agreement is, in turn, embodied in two types of agreement: i) connection agreements, entered into between ADIF and the relevant port authority, to establish the rules for the physical and functional connection between the rail infrastructure administered by ADIF and that administered by Puertos del Estado, and ii) cooperation agreements between the two entities for management of the rail infrastructure and services, under which ADIF can provide additional services for track access to the networks at the State general interest ports, as provided for in article 40.6 of the LSF. Lastly, if the general interest port or airport is in the territory of an autonomous community which has its own rail infrastructure, that autonomous community is also a party to the connection agreement, the purpose of which will be to ensure interoperability between the RFIG and the infrastructure belonging to the autonomous community and the rail infrastructure at the port or airport (articles 36.6 LSF and 50 of the RSF).
(53) Lastly, an operator responsible for administering a new element of rail infrastructure has entered the national market in recent years, the concession holder TP Ferro ${ }^{19}$. TP Ferro manages the international (UIC) gauge network between Figueras and Perpignan. A licence and safety certificate under the European legislation are still required to access the network. However, a cooperation framework agreement must be previously signed between TP Ferro and the rail undertaking. As in the case of ADIF, access to the network entails an obligation to pay a charge, although the criteria for setting that charge are different from those established by the public enterprise.

## II.1.2.3 Infrastructure access

[^10](54) Article 46 of the RSF provides that access to the RFIG will be on objective, transparent and non-discriminatory terms, and the LSF itself therefore establishes how the fees and charges are to be calculated ${ }^{20}$.
(55) Infrastructure access takes place by means of capacity allocation ${ }^{21}$, by ADIF, on objective, transparent and non-discriminatory terms. Rail infrastructure capacity is measured by the number of train slots which can be made available on a section of infrastructure in a given period of time. ADIF is responsible for establishing the capacity available on the network it administers, by means of the network statement. Infrastructure capacity allocation is therefore the assignment by ADIF to the relevant applicants of the train slots defined in that network statement.
(56) The minimum access package ${ }^{22}$ includes: a) the handling of requests for infrastructure capacity; b) the right to use the capacity granted; c) use of track points and junctions on the network; d) train control including signalling, regulation, dispatching and the communication and provision of information on train movement; and e) any other information required to implement or operate the service for which capacity has been granted. That right to use infrastructure, once granted, cannot be transferred to a different company. In the case of a congested network where there are several requests for the same train path, article 11 of Order FOM/897/2005 establishes the criteria, in descending order of priority, for determining the allocation:

- Any priorities which the Ministry of Development may establish for the various types of service within in each line, giving particular consideration to freight transport services.
- Whether there is specialised infrastructure and whether those requests can be met on that infrastructure.
- Services declared to be in the public interest.
- Whether the train slots requested were allocated and effectively used by the applicant in earlier working timetables.
- International services.
- Whether there are any framework agreements which make provision for the relevant request for capacity to be granted.
- Whether an applicant has requested the same train slot on several days of the week or in successive weeks of the timetabling period.
- The efficiency of the system.

[^11](57) Access to the rail infrastructure entails payment of a charge for use of the lines and a charge for use of the stations and other facilities. The LSF establishes the principles governing the setting of charges: the economic viability of the infrastructure, efficient operation, market circumstances and financial equilibrium in provision of services. In determining the amount of the charges, environmental, accident and infrastructure costs not taxed in respect of other modes of transport can be taken into account. Lastly, the amount of the charges may also reflect the level of infrastructure congestion and the need to foster new rail transport services and incentivise use of under-utilised lines, "whilst guaranteeing optimum competition between railway undertakings". Those principles have been embodied in the existence of various charges within the two main groups:

- Charge for line use: this comprises (i) an access charge, (ii) a capacity reservation charge, (iii) a movement charge and (iv) a traffic charge.
- Charge for the use of stations and other facilities ${ }^{23}$ : (i) charge for the use of stations by passengers (charged to the companies), (ii) charge for establishing and using platforms at stations (for local and regional services), (iii) right-of-way charge for gauge changers, (iv) charge for the use of sidings, and (v) charge for the provision of services requiring authorisation for use of the public railway domain.
(58) Of the charges aforementioned, the following would apply to freight trains:
- Access charge, depending on the activity performed, on the basis of expected traffic.
- Capacity reservation charge, depending on the type of line, service, train and timetable and based on reserved kilometres of track.
- Movement charge, depending on the type of line, service and train and based on rail kilometres travelled.
(59) As regards access to the TP Ferro infrastructure, it indicates in its network statement that access charges are set in accordance with the concession agreement and in compliance with Community rules. It also sets out the priority criteria for allocating capacity where there is a conflict in the working timetable. Those criteria are as follows:
- The safety of rail traffic.
- Services declared to be in the public interest.
- The priority services determined by both the States which granted the concession.
- The train paths allocated and used regularly during the earlier working timetable.
- Long distance international services.

[^12]- The efficiency of the system.
(60) On the metric gauge lines, the transport service was operated under a different regime from the rest of the RFIG, as set out in Transitional Provision Five of the LSF, now repealed. In order to access the FEVE network there had to be commercial agreements permitting third parties' hauled material to be used on the FEVE lines. It was in fact FEVE which undertook the transport on its lines and only on special occasions did it authorise duly approved traction stock and enter into agreements with other public and private entities. From 1 January 2013 those provisions have been repealed by Royal Decree Law 22/2012, with the effect that the narrow gauge tracks have the same operating regime as the rest of the RFIG.


## II.1.2.4 Additional, complementary and ancillary services

(61) A series of inputs and supplies are needed in order to use rail infrastructure, which are classified in the Spanish legislation as additional, complementary or ancillary services. The annex to the LSF defines the concepts of additional, complementary ${ }^{24}$ and ancillary services and distinguishes between them.

- Additional services: services involving track access to the maintenance, repair and supply facilities on the RFIG, specifically to:
a. Fuel supply facilities.
b. Electrical supply equipment for traction current, where available.
c. Train formation facilities.
d. Maintenance and other technical facilities.
e. Freight terminals.
- Complementary services:
a. The supply of traction current.
b. Fuel supply.
c. Shunting and any other service relating to operations on rail stock provided at the maintenance, repair and supply facilities and freight terminals and marshalling yards.
d. Specific services for monitoring the transportation of hazardous goods and assistance in running abnormal trains.
- Ancillary services:
a. Access to the telecommunications network.
b. Provision of supplementary information.
c. Technical inspection of rolling stock.

[^13](62) The regulations governing those services have undergone several changes, contained in article 24 of Act $\mathbf{2 5 / 2 0 0 9}$ of 22 December amending various Acts to bring them into line with the Act on free access to and pursuit of service activities (Omnibus Act) and in Act $2 / 2011$ of 4 March, the Sustainable Economy Act (Ley de Economía Sostenible or LES). Even so, their governing regulations are incomplete, in so far as the implementing regulations referred to in article 40 of the LSF intended to set the criteria for the provision of complementary services have not been enacted ${ }^{25}$. It is also expected that the new Infrastructure, Transport and Housing Plan (Plan de Infraestructuras, Transporte y Vivienda or PITVI) ${ }^{26}$ will modify the charging arrangements for additional, complementary and ancillary services, converting certain complementary services into ancillary services.
(63) Responsibility for those services in the areas of the railway service zones administered by ADIF varies from one service to another:

- Provision of additional services on the RFIG is reserved exclusively to ADIF, which is in turn obliged to supply those services to the rail companies. Provision of the services is subject to the payment of tariffs, constituting revenue governed by private law and requiring approval by the Ministry of Development ${ }^{27}$.
- Complementary services can be provided by ADIF (and must be provided where they are requested by the rail companies) ${ }^{28}$, by undertakings authorised by ADIF in the form of a qualifying permit, or to themselves by the rail companies themselves (self provision ${ }^{29}$ ), whilst the provision of complementary services to third party undertakings is expressly prohibited. Irrespective of the arrangements chosen, operators must have a qualifying permit, granted by ADIF, in order to provide the service. As for additional services, provision of the services is subject to payment of tariffs,

[^14]constituting revenue governed by private $\mathrm{law}^{30}$ and subject to approval by the Ministry of Development.

- Ancillary services are provided under arrangements governed by private law and may be provided by ADIF (which is not obliged to provide them), by service providers, which do not need to obtain a qualifying permit to do so, or by the rail companies as self provision, whilst the provision of ancillary services to third party undertakings is expressly prohibited. In contrast to the arrangements described above, the price for the services is agreed freely between the parties.
(64) The self provision of complementary and ancillary services is dictated, however, by the classification which ADIF makes each year in the network statement between principal terminals (where the rule is that the rail companies are not permitted to provide services to themselves) and secondary terminals (where they are $)^{31}$. As regards the rules governing the provision of complementary and ancillary services by qualified undertakings on the RFIG at terminals managed by ADIF, the requirements on service providers in order to obtain the qualifying permit, and the rules governing the terms on which ADIF has to enter into agreements or contracts with the providers of complementary services to make accommodation, facilities or resources available, are still pending approval.
(65) Complementary and ancillary services in the areas of the rail service zones not administered by ADIF (privately-owned terminals, for example) are provided under the private law and no qualifying permit is required to provide services.
(66) At ports, the port authorities have the powers conferred on ADIF in relation to additional, complementary and ancillary services, although the additional services involving track access to the rail networks at general interest ports can be provided by ADIF, subject to agreement with the relevant port authority.


## II.1.2.5 Provision of rail transport services

(67) The freight rail service in Spain has been liberalised since 2003 as regards international transport and since 2005 for domestic transport ${ }^{32}$. Passenger transport has been liberalised since 2010 as regards international transport. Liberalisation of domestic passenger transport, however, is still pending, although

[^15]Royal Decree Law 22/2012 recently established 31 July 2013 as the deadline for liberalising the market ${ }^{33}$. Rail companies can enter the market for the services which are liberalised, whereas in relation to domestic passenger services, in the RFIG context, RENFE-Operadora operates on an exclusive basis.
(68) Where services are open to competition, operators must comply with a series of requirements, common throughout Europe, in order to provide the service: a railway undertaking licence and a safety certificate ${ }^{34}$, approval of rolling stock ${ }^{35}$ and qualifying permits for train drivers and all other rail personnel ${ }^{36}$. To operate a specific stretch, the operator must have a safety certificate to operate that stretch, must have train drivers qualified to drive on it and must have capacity allocated by ADIF on that section.
(69) Railway undertaking licences (article 44 LSF) are granted by the Ministry of Development, subject to a report by $\mathrm{ADIF}^{37}$, and there is a single licence for the whole RFIG, valid throughout European territory. Article 45 of the LSF governs the requirements for granting rail company licences:

- The company "must be a public limited company (sociedad anónima), with the exception of RENFE-Operadora which does not have to satisfy that requirement ${ }^{38}$.
- It "must have the financial capacity to meet its existing and future liabilities" ${ }^{39}$.
- It "must ensure that its management and technical personnel are competent and that the service it intends to provide is safe". To do so the applicant

[^16]company must have, or must undertake to have when it commences its activities, management bodies with the necessary expertise and experience, personnel responsible for safety and other personnel, rolling stock and structures capable of ensuring a sufficient degree of safety in the services provided.

- The undertaking applying for a licence must also have "sufficient cover for any third party liability it may incur."
(70) Article 43 of the LSF also requires the rail companies to provide traction. Under article 58 of the RSF, "traction is understood to be provided where the undertaking owns the means enabling traction or where it has access to those means on a permanent basis in any manner accepted in law under which they are fully available throughout the period during which the service is provided".
(71) The safety certificate (article 57 LSF ) relates to the lines it is intended to operate at a given time, and therefore each time a company wishes to provide service on a new stretch it must apply for an extension of that certificate (articles 105 and 106 RSF) ${ }^{40}$. Like the licence, it is issued by the Ministry of Development ${ }^{41}$, through the Railway Department (Dirección General de Ferrocarriles), which has taken over this responsibility since September $2010^{42}$.
(72) Capacity is allocated by the infrastructure administrator, on the basis of the provisions, time limits, procedures and criteria set out in the network statement.
(73) Article 58 of the LSF provides that the Ministry of Development will, by order, establish the terms and requirements for approving and registering the rolling stock running on the RFIG lines, and the provisions governing the authorisation and operation of the approval centres for that rolling stock.
(74) Three requirements must be satisfied for rolling stock to be approved, contained in Order FOM/233/2006 of 31 January: the rail vehicles must be validated, which consists of verifying that the rolling stock complies with the technical specifications for approval ${ }^{43}$ in accordance with a report by a certification body; there must be an authorisation for placing in service, issued by the Railway Department, and a vehicle movement authorisation, granted by ADIF. Fees must be paid for grant of the rolling stock approval document, as provided for in article
${ }^{40}$ The updated fee for issuing a safety certificate is 11041.89 euros, whilst the amount payable to extend, renew or revise the certificate is 5520.94 euros.
${ }^{41}$ The time limit for determining those applications is four months, and no reply is deemed to be a refusal. Issuing, extending, renewing or revising the safety certificate involves costs of the same amount as for the licence.
42 Previously, responsibility for this lay with ADIF and it was taken over by the Ministry through the Regulation on movement safety on the RFIG, approved by Royal Decree 810/2007 of 22 June, which provides in article 4.1.e), that the Railway Department of the Ministry of Development is competence to grant, renew, modify and revoke rail companies' safety certificates.
${ }^{43}$ The technical specifications for approval are a series of safety, reliability, technical compatibility, health, environmental and, where applicable, interoperability standards, requirements and conditions with which all the rail vehicles must comply in order to be granted the authorisation to place in service and the vehicle movement authorisation.

69 of the LSF, the amounts of which are established by the aforementioned Ministerial Order ${ }^{44}$. Furthermore, article 12.2 of Order FOM/233/2006 provides that, in order to be granted the vehicle movement authorisation, the rail rolling stock must have been driven for a given number of kilometres (the number of kilometres to be travelled depends on the type of rolling stock). Once a series of rolling stock assets has been approved, it is not necessary to approve each locomotive or wagon, as set out in article 10 of the $\mathrm{LSF}^{45}$.
(75) Order FOM/233/2006 also governs the requirements for rolling stock maintenance centres. These must have approval, granted by the Ministry of Development, and a permit for each maintenance action they carry out in accordance with the characteristics of the rail vehicle. That permit is granted by ADIF.
(76) A final requirement is the permit to be held by train drivers, which is currently governed by Order FOM/2520/2006, as amended by Order FOM/2872/2010 in order to transpose certain changes made by Directive 2007/59/EC. Those changes mean that the regulations are currently in a transitional period prior to full adoption of the new Order which will not come fully into force until 2019.
(77) At present, driving personnel operating on the RFIG must have the following documents:

- Licence to drive, issued by the Railway Department of the Ministry of Development ${ }^{46}$.
- Certificate to drive, issued by the rail companies ${ }^{47}$ or by ADIF, at the proposal of their respective traffic safety managers. Those permits are specific to each type of rolling stock and each infrastructure element (that is to say, a permit is required for each section or line on which it is intended to operate and for each locomotive model). Those certificates are furthermore not personal, but belong to the granting rail company with the effect that, unlike licences, they cease to be valid when the employment relationship ends ${ }^{48}$.


## II.1.2.6 Maintenance of rolling stock

(78) The requirements for maintaining rolling stock are set out in Order FOM/233/2006 of 31 January, which provides that a maintenance plan, designed by the manufacturer, must be presented for each rail vehicle in order to obtain the corresponding vehicle movement authorisation from ADIF. For grant of the

[^17]authorisation to make available, the applicant must indicate the approved maintenance centres where that maintenance plan will be implemented. That proposed plan may be modified by forwarding a proposal to ADIF, giving technical justification for the alteration. In particular cases, ADIF can take the initiative in making a proposal to modify the maintenance plan and must state reasons for that change to the vehicle owner or rail company and require it to make that change.
(79) Order FOM/233/2006 provides that the maintenance centres must be approved ${ }^{49}$ and have a permit for each type of maintenance action they perform.
(80) The main maintenance operations established in the regulations vary according to whether they relate to locomotives or wagons. For locomotives, the principal maintenance and repair operations are summarised in Table 1. There are different inspection levels, depending on the number of kilometres travelled, and a general overhaul at 3.2 million kilometres.

Table 1. Types of locomotive maintenance and repair

| Operation | Description | Frequency |
| :---: | :---: | :---: |
| IS | Service | 12500 km |
| IB | Basic inspection | 50000 km |
| IM1 | Level 1 interim inspection | 100000 km |
| IM2 | Level 2 interim inspection | 200000 km |
| IM3 | Level 3 interim inspection | 400000 km |
| IM4 | Level 4 interim inspection | 800000 km |
| IM5 | Level 5 interim inspection | 1600000 km |
| R1 | General overhaul | 3200000 km |

Source: Compiled by the CNC from data provided by the rail companies.
(81) The maintenance and repair operations for wagons are of different types and are timetabled
differently,
as
described
in

[^18]Table 2.

Table 2. Types of wagon maintenance and repair

| Operation | Description | Frequency |
| :--- | :--- | :---: |
| Safety inspection (Visita de <br> Seguridad or VS) |  | 5000 km |
| Cyclical repairs (Reparaciones <br> Cíclicas or RSI) | Inspection of safety bodies | 3 years |
| Safety Inspection (Revisión de <br> Seguridad or RS) |  | 6 years |
| Major Repairs (Grandes <br> Reparaciones or R) | General Inspection | 12 years |

Source: Compiled by the CNC from data provided by the rail companies.

## II.1.2.7 Market supervision

(82) Article 82 of the LSF created the Railway Regulation Committee (CRF), as a body attached to the Ministry of Development, which acts with full functional independence and whose role was extended by the Sustainable Economy Act 2/2011 of 4 March (LES).
(83) The functions of the CRF include ${ }^{51}$ :

- Safeguarding the diversity in the supply of services provided on the RFIG, ensuring that they are provided on objective, transparent and nondiscriminatory terms.
- Ensuring equality between public and private undertakings in relation to the terms for accessing the market.
- Ensuring that fees and charges comply with the Act and are not discriminatory.
(84) For that purpose, it can determine claims made by actors in the system and can initiate proceedings ex officio. Those claims may relate to the grant and use of safety certificates and the obligations arising from them, implementation of the terms of the network statement, procedures for allocating capacity, charges, and discriminatory practices relating to access to infrastructure or related services.

[^19](85) It has supplementary functions of supervising and, where necessary, intervening in negotiations between applicants and infrastructure administrators in relation to charges, issuing the reports required where the regulations establish rail charges and tariffs, issuing conclusive reports on rail-related proceedings being heard by the CNC, and reporting to the State or regional administrations which so request on draft rail provisions or resolutions.
(86) As regards the resources of the CRF, the LSF provides that "it shall have the resources necessary to perform its tasks. The Ministry of Development must provide it with any cooperation requested in order to achieve its purposes.

## II.1.2.8 Regional rail systems

(87) The Spanish Constitution establishes that the State, and the autonomous communities on their rail networks, have full powers and responsibilities, as recognised in the Preamble to the LSF (articles 148.5 and 149.1.21 and article 24 of the Spanish Constitution), subject to the powers of the State to regulate the basic terms ensuring equality for all Spaniards in exercise of their constitutional rights and performance of their constitutional duties (article 149.1.1), to establish the bases and to coordinate overall planning of economic activity (article 149.1.13) and to regulate the State Treasury and public debt (article 149.1.14). The autonomous communities can therefore take over competences relating to railways running entirely within the territory of the autonomous community and on the same terms in relation to the transport taking place on those railways.
(88) As regards the division of responsibilities between the State and autonomous communities, in its judgment of 18 December $2012^{52}$ the Constitutional Court held that "the State legislature can - as article 2 of the LSF does - establish as a generic or abstract purpose that a common rail transport system in the territory of the State will be safeguarded. This cannot be understood as the State having competence to establish or maintain that common system on its own, attracting under State competence the entire rail infrastructure essential to guarantee that common system or which has to be administered jointly for that common system to function correctly."
(89) The judgment goes further and holds that "a distinction should be made between regulatory competences (in which the criterion of territoriality must be applied strictly) and competences to implement State legislation, which are to a certain extent disassociated from that criterion, and where it is sufficient that the transport originates and terminates in the territory of the autonomous community for that autonomous community to have competence". (Ground in Law 16). Accordingly, it was found that "the railway undertaking licence which, as a single licence for the RFIG, is regulated by article 44 of the LSF, only relates to rail transport which is the competence of the State - rail services running through more than one autonomous community and partial services which are fragments of a regular transport line covering more than one autonomous community [...] When the rail

[^20]services run entirely within an autonomous community, they must be regulated entirely by that autonomous community, which has complete freedom to organise how public interest rail services are managed and funded."
(90) At autonomous community level, the Community regulations do not require market opening. This exception is contained in article 2.2 of Directive EC 91/440, which provides that "Member States may exclude from the scope of this Directive railway undertakings whose activity is limited to the provision of solely urban, suburban or regional services". A number of autonomous communities have, however, approved regulations liberalising the rail transport service and establishing a network access regime similar to that under the LSF:

- $\quad$ The Rail Act 4/2006 of 31 March (Catalonia).
- Act 9/2006 of 26 December on Andalusian Rail Services.
- Act $6 / 2004$ of 21 May on the Basque Rail Network - Euskal-Trenbide Sarea.
(91) Infrastructure management entities similar to ADIF have been created in a number of autonomous communities: Infraestructuras Ferroviarias de Catalonia (IFERCAT) ${ }^{53}$, Ferrocarriles Vascos S.A. (ETS) ${ }^{54}$, Ferrocarriles de la Generalitat Valenciana (FGV) ${ }^{55}$, and the now defunct Madrid Infraestructuras de Transporte (MINTRA) ${ }^{56}$ and Ferrocarriles de la Junta de Andalusia (FFJA) ${ }^{57}$.
(92) Other autonomous communities, whilst they have not developed a full body of law on the rail sector, have taken over competences in this area. The main responsibilities of the autonomous communities relate to local transport, an area excluded from the scope of application of the LSF. Under article 149.3 of the Constitution, the LSF can be regarded as applying to freight in the autonomous communities, where other legislation is silent.


## II.2. Economic characteristics of rail freight transport in Spain

(93) First of all, in relation to freight transport, a distinction must be made between freight transport services and freight forwarding services. Companies competing in freight forwarding provide integrated services to end customers, normally handling insurance of the goods and all logistics procedures, including customs procedures. Forwarding operators contract with transport service

[^21]providers for transport services and normally contract different modes or systems of transport for a single cargo. Transport is, therefore, an input for the provision of forwarding services ${ }^{58}$.
(94) In freight transport, therefore, demand consists of the end customers, who need to transport freight, and the intermediaries, the forwarding companies.
(95) There are various modes of freight transport - land (road, rail, river, pipeline or even conveyor belt), maritime and by air. Having regard for customers' geographical location and the specific characteristics of certain freight, not all modes of transport can be regarded as completely substitutable on the demand side, but rather the question must be examined on a case-by-case basis taking into account the options available in terms of price, journey times, load capacity (weight, size, quantity, level of risk, etc.) and geographical availability, amongst other variables ${ }^{59}$.
(96) As a general rule, air and maritime transport are not substitutable with land freight transport on the demand side ${ }^{60}$ and, with the exception of particular cases, rail is not substitutable with the other modes of land transport ${ }^{61}$. Rail has certain characteristics which makes it more appropriate for transporting heavy and bulk freight, for transporting greater quantities longer distances for customers who have access to rail infrastructure ${ }^{62}$. It would seem that substitutability on the demand side between the train and other modes of land transport can only be expected in a corridor where the prices of rail freight transport services are excessively high as result, for example, of the existence of market power in a particular geographical area or of high costs due to uneven terrain ${ }^{63}$.

[^22](97) Within rail freight transport, likewise, a number of distinctions are usually made.
(98) First, a distinction can be made between the provision of national and international rail freight services, having regard for the regulatory differences between EU Member States, for the fact that licences and safety certificates for rail companies are granted nationally and for the various qualification requirements on personnel to operate in different States. For example, cooperation agreements between rail companies in different States are very common in international transport, whereas within each State there are usually no such agreements ${ }^{64}$.
(99) Secondly, a distinction can be drawn between the provision of block train services and single wagon or container transport services ${ }^{65}$. Block train services provide "point-to-point" connections, dedicated to a single user and tailored to the specific needs of that user, which can easily be offered by new entrants in so far as they afford no network economies giving an advantage to the incumbent. In contrast, normally only the undertaking already established is able to provide an integrated national container transport system. In a few cases, the European Commission has indicated that new entrants would only be in a position to compete effectively with the incumbent operator in this kind of service in specific industrialised areas ${ }^{66}$. The Commission has furthermore acknowledged that, to the extent that there is more dependence on trains for transporting large quantities, in relation to container transport there may appear to be greater substitutability between the train and road ${ }^{67}$.
(100) Fourthly, the provision of transport services may be confined to traction only. The traction service includes making available a locomotive and a driver, and the ancillary service consisting of other locomotives and back-up services ${ }^{68}$. The European Commission found that "A contract for traction must, if it is to be meaningful, include whatever back-up is necessary to ensure reasonable certainty in terms of punctuality, reliability and continuity of the service. Such back-up would need to include maintenance and repair of the locomotive as well as the provision of a replacement locomotive, if necessary. With regard to the driver, the traction supplier has to ensure that the driver has the necessary licence and the route knowledge for the specific service. As in the case of the locomotive, the

[^23]driver has to be provided at a certain location, a certain point in time and for a specified duration. There is also a back-up requirement in relation to the driver." ${ }^{69}$
(101) Fifthly, when analysing transport for competition purposes the starting point is usually a 'point of origin/point of destination" or "O\&D approach", under which each combination of a point of origin and a point of destination constitutes a different market on the demand side.
(102) Under that approach, in order to determine each relevant market the substitutability of supply and demand must be analysed by comparing the various routes and the different transport options between two origin-destination pairs. On demand side, whether transport is substitutable may depend on factors such as price, frequency, service quality, the reason for the transport or journey duration ${ }^{70}$. In comparison with passenger transport, there is much greater substitutability between direct routes (with no stops) and indirect routes (at least one stop).
(103) Furthermore, the extent of each point of origin or destination (the catchment area) can vary according to circumstances. In block train transport services, it is less likely that an amount of freight equivalent to a train could be diverted in the short term on other routes or alternative modes of transport in response to a change in relative prices, for example. The users of block train services also tend to be major industrial undertakings, which on many occasions have developed specific rail infrastructure at their own facilities ${ }^{71}$ and can stipulate means of transport tailored to their products, so that even medium-term substitutability with other alternatives may be reduced. In the case of container transport, the transport is more standardised, which makes it more probable that it is substitutable with other means of transport and that the catchment areas are larger. The existence of specific corridors constituting relevant markets tends to be limited to situations where transport on other routes is not feasible for economic or technical reasons (the existence of "bottlenecks") ${ }^{72}$.
(104) Further, provision of rail freight transport services requires access to infrastructure on which the trains can run. The national and Community competition precedents hold that there is a market for access to and management of rail infrastructure ${ }^{73}$. According to the European Commission ${ }^{74}$, that market

[^24]includes the minimum access package and track access to facilities and supply of services, as provided for in the domestic legislation.
(105) Provision of the rail freight transport service also requires a series of ancillary products and services: rail stock (locomotives and wagons), maintenance and repair, personnel, supplies, loading and unloading services ${ }^{75}$.
(106) The Strategic Plan to Stimulate Freight Transport in Spain (Plan estratégico para el impulso del transporte de mercancías en España or PEITM) takes the view that a rail company's most significant cost items are: investment in rail stock (repayment and interest), energy costs, maintenance of stock, personnel, terminals, transport management, insurance and network access charges ${ }^{76}$.
(107) Each of the activities comprising the rail freight transport sector in Spain is described below.

## II.2.1. Rail infrastructure

(108) The network administered by ADIF $^{77}$ is 15214 km long, of which 12365 km are conventional lines ( 11078 km of Iberian gauge track ${ }^{78}$ and 1287 km of metric gauge track), the remaining 2849 being high speed lines, mostly European standard or UIC gauge ${ }^{79}$.
(109) Freight transport has access to 10843 km of ADIF's original conventional network ${ }^{80}$ and to 127 km of the high speed network. However, as the CRF indicated in its 2011 Annual Report, only 716.7 km are exclusively for freight, whilst the majority of the network available for freight transport, 10.253 .9 km , consists of lines shared between passenger and freight services.

[^25](110) As regards regionally-owned infrastructure, the lines belonging to the Autonomous Community of the Basque Country cover 226 km , whilst in Catalonia there are 270 km of lines, with 92 km of its network for freight ${ }^{81}$.

## Characteristics of the RFIG: Spain as an island

(111) Graph 1 shows the configuration of the RFIG as at December 2011, distinguishing between high speed and conventional lines. The map also indicates the principal rail stations. The conventional line has the radial structure characteristic of how the railways are configured in Spain.

[^26]Graph 1. General Interest Rail Network. 2011


Source: ADIF, 2012 Network statement.
(112) The Strategic Plan to Stimulate Rail Freight Transport in Spain (Ministry of Development, 2010) establishes the priority freight routes as at 31 December 2010. These are concentrated between Madrid and the east of the peninsular, and between Madrid and the southern routes.

## Graph 2. Iberian gauge lines with priority for freight traffic. 2010.



Source: Ministry of Development, Strategic Plan to Stimulate Freight Transport in Spain. 2010
(113) The networks belonging to the RFIG have peculiarities which distinguish them from European infrastructure. The first is the track gauge. Continental Europe shares the same track gauge, known as UIC 1435 mm , which in Spain is only found on the high speed networks and, therefore, is used almost exclusively for passenger transport, is marginal in terms of freight transport and has little prospect of increasing on a widespread basis in the short term. Most lines in Spain ${ }^{82}$ have a different gauge, the "Iberian gauge" ( 1668 mm ). Currently the 44.4 km stretch between Figueras and Perpignan is the only UIC gauge connection with France for freight traffic.
(114) Given the different gauges in Spain and continental Europe, the current options for crossing into France involve transferring containers at ADIF facilities or choosing to use the axle-gauge change-over point, an option which requires the wagons also to be interoperable. There is a third option through the TP Ferro

[^27]tunnel. However, at present only RENFE-Operadora and the incumbent French operator, SNCF, provide services on that line.
(115) Secondly, attention is drawn to the fact that the trains running in Spain are shorter. In general, the characteristics of the Spanish infrastructure limits trains to $450 \mathrm{~m}^{83}$ compared with the European average of $750 \mathrm{~m}^{84}$. Specifically, the average length of freight trains running on the RFIG and managed by ADIF is 322 m . This unsuitability for longer trains is due to the characteristics of the sidings, terminal access and the terminals themselves. $40 \%$ of the principal logistics facilities have a maximum length of less than 600 m for receiving and dispatching trains. Sidings are also unsuited to longer trains. Data from the 15 ADIF sidings in operation bears this out, only 6 of the sidings have track longer than 600 m . At none of them are all the tracks longer than that limit.
(116) There are other technical differences between Spanish rail infrastructure and that in the rest of Europe. One of the most significant is the difference in the electrification systems. Here, the problem arises at both the French and Portuguese borders, but in different ways. In the case of Portugal there are no electrified border crossings, and the crossing has to be made with diesel locomotives, which are more expensive. As regards the French border, the electrification systems are different, in so far as France uses 1500 V direct current systems on conventional networks, and Spain, 3300 V direct current systems for this type of network, which are those on which freight trains primarily run ${ }^{85}$.
(117) Different signalling systems also coexist in Europe. The EU has promoted an initiative to adopt a common system, the ERTMS (European Rail Traffic Management System). It is being introduced gradually with a view to being installed throughout the European network, and has already been installed on the lines with the greatest potential for international traffic. However, full introduction of this system is envisaged only in the medium/long term.
(118) Alongside this are different rail regulations in European countries, which require operators to comply with many different requirements in order to provide services in different territories. Examples of this lack of regulatory harmonisation can be found in the training of train drivers. The regulations for rolling stock approval, likewise, have not been harmonised ${ }^{86}$.
(119) Lastly, there are yet more characteristics of the RFIG which exacerbate the physical separation from other countries, such as the differences in clearance

[^28]gauges ${ }^{87}$ and, on certain stretches, pronounced gradients which restrict loads and the length of freight trains.

## Rail traffic

(120) The main flows of freight by rail in Spain and the corridors along which they travel are shown below.

Graph 3. Average daily freight traffic on the State-owned rail network.


Source: Ministry of Development, Strategic Plan to Stimulate Freight Transport in Spain. 2010
(121) It can be seen in Graph 3 that the bulk of traffic travels along the Mediterranean Corridor, the Central-South Corridor and from Madrid to the Ebro and North-East Corridors.
(122) In Graph 4 it can be seen that the main flows which include conventional wagon and intermodal transport run primarily in the North East quadrant of the peninsular.

[^29]Graph 4. Most significant flows of rail freight. Total national traffic: conventional wagon and intermodal
(> 150000 t). 2011


Source: Infrastructure, Transport and Housing Plan. Ministry of Development.
(123) The following tables show the evolution in tonne-kilometres, for both national and international full wagonload ${ }^{88}$ and intermodal ${ }^{89}$ traffic between 2006 and 2011. As can be seen in Table 3, there has been a sharp drop in rail freight transport originating and with destination in Spain ( $-31 \%$ between 2006 and 2011), which has had a greater effect on full wagonload transport than on intermodal transport.

Table 3. Changes in tkm carried in the period 2006-2011 (million). National

| Year | Total | \% Intermodal | \% Full wagonload |
| :---: | :---: | :---: | :---: |
| 2006 | 9125 | $35 \%$ | $65 \%$ |
| 2007 | 8763 | $32 \%$ | $68 \%$ |
| 2008 | 8225 | $35 \%$ | $65 \%$ |
| 2009 | 5864 | $36 \%$ | $64 \%$ |
| 2010 | 6263 | $36 \%$ | $64 \%$ |
| 2011 |  | $37 \%$ | $63 \%$ |

Source: Ministry of Development
(124) In traffic with an international origin or destination, a sharp reduction can also be seen between 2006 and 2011 ( $-31 \%$ ). According to the data in

[^30]Table 4, although the reduction in traffic was initially higher for intermodal transport, from 2008 there was a sharp drop in full wagonload traffic. Intermodal transport therefore became the principal type of international transport in 2011.

Table 4. Evolution of tkm carried in the period 2006-2011 (million). International

| Year | TOTAL | \% Intermodal <br> transport | \% Full wagonload |
| :---: | :---: | :---: | :---: |
| 2006 | 1887 | $41 \%$ | $59 \%$ |
| 2007 | 1784 | $29 \%$ | $71 \%$ |
| 2008 | 1513 | $32 \%$ | $68 \%$ |
| 2009 | 1109 | 1047 | $41 \%$ |
| 2010 | 1301 | $53 \%$ | $63 \%$ |
| 2011 |  | $47 \%$ |  |

Source: Compiled by the CNC using data from the Ministry of Development.
(125) Graph 5 analyses the breakdown of freight flows with European countries. The main flows are with Germany (45\%) and Portugal (23\%).

Graph 5. International rail traffic. 2009


Source: Strategic Plan to Stimulate Freight Transport in Spain. 2010

## Logistics terminals

(126) There are different types of logistics facilities depending on their location, size, types of operations and the resources deployed by ADIF. In the ADIF network statement they are classified as follows:

- Technical facilities: dedicated to performing operations on railway stock and relating to its stabling and formation to enter into service.
- Logistics facilities: these provide logistics services relating to handling and storage of freight, adding value to the transport chain.
- Logistics centres: facilities are categorised as logistics centres by reason of their strategic location on the main rail corridors, their size and the resources devoted to these.
(127) Graph 6 shows the locations of the logistics facilities for rail freight transport, distinguishing between those belonging to ADIF (the majority) and those of the defunct FEVE (now ADIF).


## Graph 6. Main logistics centres on the RFIG (2010).



Source: ADIF, Network statement (2011)
(128) The analysis can be taken further, looking at activity by terminal, distinguishing by terminal and by national or international geographical area.

Graph 7. Number of trains received and dispatched weekly by rail terminal and geographical area. 2011
No TRENES SEMANALES TOTALES RECIBIDOS Y EXPEDIDOS POR TERMINAL FERROVIARIA Y ÁMBITO GEOGRÁFICO


Source: Fundación Valenciaport Report. 2011
(129) The terminal with the most activity is Madrid Abroñigal, followed by those of Zaragoza Plaza, Barcelona Morrot and the ports of Bilbao, Barcelona and Valencia. At all terminals national traffic is greater than international traffic, which is only significant at the Madrid Abroñigal, Tarragona-Constati and Barcelona-Granollers terminals ${ }^{90}$.

[^31](130) Graph 8 contains an analysis of national traffic by terminal with a breakdown by geographical area.

Graph 8. Weekly number of trains by terminal of origin and area of destination


Source: Fundación Valenciaport Report. 2011.
(131) The flows from Madrid Abroñigal and Zaragoza-Plaza are essentially with the east of the peninsular, although in the case of Madrid Abroñigal there are also significant flows with the south and north-east. In the case of Barcelona Morrot and the Port of Barcelona, there is notable traffic with the north-west. At the Port of Valencia traffic is fundamentally with the centre of the peninsula.
(132) The former figures make it possible to analyse traffic from the main geographical areas:

- In Catalonia, nearly 120 trains a week stop at the Barcelona-Morrot, Puerto Barcelona, Barcelona-Granollers and Barcelona-Can Tunis terminals, whilst a
further 45 trains a week stop at the Tarragona-Constantí, Tarragona-Clasificación and Puerto Tarragona terminals.
- In the Community of Madrid, around 140 trains a week stop at the MadridAbroñigal, Madrid-Coslada and Madrid-Complejo Villlaverde terminals. The nearby terminal of Guadalajara adds a further 14.
- Zaragoza has the Zaragoza-Plaza and Zaragoza-TMZ terminals, which total 67 trains a week. Huesca-TIM adds a further 10 trains a week.
- In Andalusia, 41 trains a week stop at the Puerto Sevilla, Sevilla-La Negrilla and Sevilla-La Roda terminals. The Córdoba-El Higuerón terminal adds 20 trains a week, the Port Algeciras a further 10 trains a week and Huelva-Mercancías 2.
- In the Community of Valencia, the Puerto Valencia and Valencia-Silla terminals total 64 trains a week and the Puerto Castellón terminal another 2.
- In the Basque Country, the Puerto Bilbao and Bilbao-Mercancías terminals total 55 trains a week and the Vitoria-Júndiz terminal adds a further 10.
- Lastly, León-Clasificación has 23 trains a week.


## Maritime-rail intermodal traffic

(133) Traffic with the ports might serve as an indicator of the level of intermodal transport.
(134) Graph 9 shows the share of port traffic represented by each mode of transport, highlighting the prevalence of road with a $53 \%$ share, followed by pipeline (38\%). Rail is the least represented mode of transport with only $3 \%$ of the total flows.

Graph 9. The modal split of port traffic at national level. 2010.


Source: Compiled by the CNC using data from the Puertos del Estado 2010 Statistical Yearbook (Anuario Estadístico).
(135) As can be seen in Table 5, rail has a very insignificant presence at all ports. Rail does not reach $10 \%$ of total traffic at any Spanish port with more than 10000000 tonnes/year of freight. Santander has the highest percentage of rail of the Spanish ports
(somewhat less than $20 \%$ of total port traffic), followed by Avilés, Pasajes y Marín and Ría de Pontevedra (around 9\%). The very low presence of rail at the port of Barcelona and Bilbao is notable. Further, many ports with a high level of freight traffic have no rail activity, such as Huelva, Bahía de Algeciras and Cartagena.

Table 5. Modal split of freight traffic at ports (t). 2010

|  | Road | Rail | Pipeline | Other ${ }^{91}$ | Total (t) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BARCELONA | 81\% | 4\% | 15\% | 0\% | 35743083 |
| BAHÍA DE ALGECIRAS | 22\% | 0\% | 75\% | 3\% | 31678061 |
| VALENCIA | 80\% | 8\% | 12\% | 0\% | 31271470 |
| BILBAO | 42\% | 4\% | 54\% | 0\% | 31195262 |
| HUELVA | 20\% | 0\% | 74\% | 6\% | 21801927 |
| CARTAGENA | 20\% | 0\% | 80\% | 0\% | 19155773 |
| GIJÓN | 30\% | 7\% | 1\% | 62\% | 15753003 |
| STA. CRUZ TENERIFE | 43\% | 0\% | 57\% | 0\% | 14812115 |
| TARRAGONA | 45\% | 7\% | 48\% | 0\% | 13602866 |
| CASTELLÓN | 39\% | 0\% | 61\% | 0\% | 12484448 |
| A CORUNA | 33\% | 2\% | 64\% | 0\% | 12256933 |
| BALEARES | 85\% | 0\% | 15\% | 0\% | 11750173 |
| LAS PALMAS | 84\% | 0\% | 16\% | 0\% | 10895812 |
| FERROL-SAN CIBRAO | 36\% | 0\% | 19\% | 46\% | 10346981 |
| SANTANDER | 78\% | 20\% | 2\% | 1\% | 5006486 |
| AVILÉS | 74\% | 10\% | 14\% | $3 \%$ | 4590327 |
| SEVILLE | 91\% | 8\% | 1\% | 0\% | 4401203 |
| VIGO | 96\% | 0\% | 4\% | 0\% | 3961255 |
| PASAJES | 87\% | 9\% | 0\% | 4\% | 3839704 |
| BAHÍA DE CÁDIZ | 98\% | 0\% | 2\% | 0\% | 3815701 |
| ALMERÍA | 39\% | 0\% | 0\% | 61\% | 3772266 |
| ALICANTE | 95\% | 0\% | 5\% | 0\% | 2187873 |
| MARÍN Y RÍA PONTEVEDRA | 88\% | 9\% | 3\% | 0\% | 1924164 |

[^32]| MOTRIL | $63 \%$ | $\mathbf{0 \%}$ | $37 \%$ | $0 \%$ | 1922662 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| MÁLAGA | $100 \%$ | $\mathbf{0 \%}$ | $0 \%$ | $0 \%$ | 1427602 |
| CEUTA | $100 \%$ | $\mathbf{0 \%}$ | $0 \%$ | $0 \%$ | 1090367 |
| MELILLA | $84 \%$ | $\mathbf{0 \%}$ | $16 \%$ | $0 \%$ | 843619 |
| VILAGARCÍA | $100 \%$ | $\mathbf{0 \%}$ | $0 \%$ | $0 \%$ | 718577 |
| TOTAL (t) | $\mathbf{1 6 3 ~ 8 3 7 ~ \mathbf { 1 9 4 }}$ | $\mathbf{9 7 1 8} \mathbf{1 8 5}$ | $\mathbf{1 1 9 5 4 3 1 4 6}$ | $\mathbf{1 9 ~ 1 5 1 ~ 1 8 8}$ | $\mathbf{3 1 2 ~ 2 4 9 ~ 7 1 3}$ |
| Modal split | $\mathbf{5 3 \%}$ | $\mathbf{3 \%}$ | $\mathbf{3 8 \%}$ | $\mathbf{6 \%}$ | $\mathbf{1 0 0 \%}$ |

Source: Compiled by the CNC using data from the 2010 Puertos del Estado Statistical Yearbook.
(136) Analysing traffic at the five biggest Spanish ports corroborates the relative insignificance of rail in maritime intermodal transport. At the ports of Barcelona and Valencia, road accounts for $80 \%$ of the total, whereas at Bahía de Algeciras and the Port of Bilbao the main mode of transport is pipeline, with shares of $75 \%$ and $54 \%$ respectively. Rail is notable for its complete inactivity at the ports of Huelva and Bahía de Algeciras and its very low share, $4 \%$, at the ports of Barcelona and Bilbao. Of the five biggest ports, Valencia has the greatest share of train traffic, with $8 \%$ of the total. Those data are reflected in Graph 10.

Graph 10. Split of intermodal traffic at the five biggest ports. 2010


Source: Compiled by the CNC using data from the 2010 Puertos del Estado Statistical Yearbook.

## II.2.2. Rail freight transport

(137) The following companies have railway undertaking licences and safety certificates to operate in Spain (Table 6):
Table 7. Companies with licences and safety certificates.

| Rail company | Date licence granted |
| :--- | :---: |
| RENFE-OPERADORA | $27 / 09 / 2005$ |
| COMSA RAIL TRANSPORT | $27 / 09 / 2005$ |
| CONTINENTAL RAIL | $14 / 10 / 2005$ |
| ACCIONA RAIL SERVICES | $16 / 03 / 2006$ |
| ACTIVA RAIL | $04 / 07 / 2006$ |
| TRACCIÓN RAIL | $24 / 07 / 2006$ |
| LOGITREN FERROVIARIA | $30 / 04 / 2008$ |
| FESUR | $28 / 05 / 2008$ |
| FGC MOBILITAT | $30 / 07 / 2009$ |
| ALSA FERROCARRIL | $29 / 03 / 2010$ |
| FERROVIAL RAILWAY | $21 / 03 / 2011$ |

Source: ADIF
(138) Of the 11 companies with safety certificates, in April 2013 the certificates of three of them are temporarily suspended: FESUR, FGC Mobilitat and ALSA Ferrocarril. Of the remaining eight companies with licences and safety certificates, only six carried freight by rail in 2011: Continental, Tracción Rail, Activa Rail, Comsa, Logitren and RENFEOperadora. Acciona, which did not operate that year, did operate in $2012^{92,93}$. The Ministry of Development has also granted licences to a further five companies, which do not yet have safety certificates ${ }^{94}$ : FFCC Vascos (24/08/2006), ArcelorMittal Siderail (17/07/2007), Alsa Ferrocarril (20/12/2010), Logibérica Rail (30/11/2011) and Takargo (01/10/2012). The nature of those companies is described briefly below:

- RENFE-Operadora: Created by the LSF as one of the public enterprises under article 43.1.b of Act $6 / 1997$ of 14 April on the organisation and functioning of the State administration (LOFAGE), it is heir to the former public body RENFE. It operates as a passenger and freight carrier. Within freight transport, it operates through wholly-owned subsidiaries: Contren (containers, swap bodies and semitrailers), Irion (steel) and Multi (freight in bulk and liquids). It also has an integrated logistics operator, Logirail. It is present in the rolling stock maintenance and repair market through its subsidiary Integria.

[^33]- Comsa Rail Transport: Created in 2002, it belongs to the Comsa Emte group. It was the first Spanish private company to obtain a railway undertaking licence (September 2005) and began operating in 2008. It participates in the maintenance and repair market through the company GMF, also part of the Comsa Emte group.
- Continental Rail: a company in the Vías group (ACS), wholly owned by Vías y Construcciones, S.A. Founded in May 2000 to operate in rail freight transport. It began operations in 2007. Together with RENFE-Operadora it incorporated the company Constru-Rail, engaged in the multimodal transport of materials and supplies and logistics.
- Acciona Rail Services: A subsidiary of the Acciona group, engaged in rail freight transport. In January 2007 it became the first privately-owned rail company to operate in the market. It had no activity in 2011.
- Tracción Rail: A subsidiary of the Azvi group which is active in construction, concessions, property development and management, transport, logistics, manufacturing and services. It commenced trading in 2008.
- Activa Rail: a subsidiary of Transfesa. In 2008, the European Commission authorised the acquisition of $51 \%$ of Transfesa's shares by the German group Deutsche Bahn AG (DB). Both RENFE-Operadora and the French SNCF hold shares, with $20 \%$ each. Following the sale of $20 \%$ of SNCF's shareholding to Transfesa, RENFE-Operadora has been in a minority position. The Council of Ministers Plan to Restructure and Rationalise the Public Business Sector (Plan de restructuración y racionalización del sector público empresarial) of 16 March 2012 places Transfesa amongst the Annex II companies, targets of State disinvestment. Activa Rail commenced trading in 2009. It also participates in the rolling stock maintenance and repair market through Transervi.
- Logitren Ferroviaria: Created in 2007 by Torrescamara y Vías. In 2008 FGV, a publicly-owned company, acquired $33 \%$ of its shares. It is commenced trading in 2010. In 2012 Vías ceased to be a shareholder.
- FFCC [Ferrocarriles] Vascos: A Basque public company which has had a rail company licence since 2006. It does not yet have a safety certificate to operate on the RFIG. It operates exclusively on the network owned by the Autonomous Community of the Basque Country.
- ArcelorMittal Siderail: Belonging to the ArcelorMittal group. It obtained a railway undertaking licence in 2007. In 2013 its application for a safety certificate is being processed.
- Ferrocarriles del Suroeste (Fesur): Incorporated in 2007. Owned as to $50 \%$ each by the Alfonso Gallardo group and by the Andalusian company Gea 21. It was granted a railway undertaking licence in 2008 and has a safety certificate.
- FGC Mobilitat: A Catalan public company which was granted a railway undertaking licence in 2009. It has a safety certificate. It operates exclusively on the network owned by the Autonomous Community of Catalonia.
- Alsa Ferrocarril: a member of the Alsa group, it was granted a railway undertaking licence in 2010 and has a safety certificate.
- Guinovart Rail: a company belonging to the OHL group - It was granted a railway undertaking licence in 2010 and does not have a safety certificate.
- Ferrovial Railway: a subsidiary of the Ferrovial group. It was granted a railway undertaking licence in 2011 and has a safety certificate.
- Logibérica Rail: Incorporated in 2011. It was granted a railway undertaking licence in December of that year and does not yet have a safety certificate.
- Takargo: a rail company in the Portuguese Mota Engil group. Together with Comsa Rail Transport, in $50 \%$ shares, it set up the company Ibercargo Rail. It was granted a railway undertaking licence in 2012 and does not yet have a safety certificate. Its main activity is infrastructure construction, building, aggregate extraction and rail logistics.
As can be seen in
(139) Table 8, in 2011, total turnover in freight transport in Spain was [...] million euros, of which RENFE-Operadora turned over [80-90]\%. Comsa was the second company in terms of market turnover with [0-10]\%, followed by Continental Rail ([0-10]\%), Activa Rail ([0-10]\%), Logitren ([0-10]\%) and Tracción Rail ([0-10]\%).

Table 8. Turnover in freight transport services by rail companies in $2011{ }^{95}$.

| Rail company | Freight turnover (million e) | $\%$ |
| :--- | :---: | :---: |
| RENFE-OPERADORA | $[\ldots]$ | $[80-90] \%$ |
| COMSA | $[\ldots]$ | $[0-10] \%$ |
| CONTINENTAL RAIL | $[\ldots]$ | $[0-10] \%$ |
| ACTIVA RAIL | $[\ldots]$ | $[0-10] \%$ |
| LOGITREN | $[\ldots]$ | $[0-10] \%$ |
| TRACCION RAIL | $[\ldots]$ | $[0-10] \%$ |
| ACCIONA | $[\ldots]$ | $[0-10] \%$ |
| TOTAL | $[\ldots]$ | $\mathbf{1 0 0 . 0 0 \%}$ |
| Total new operators | $[\mathbf{1 0 - 2 0 ] \%}$ |  |

Source: Compiled by the CNC using data from the rail companies.

## Graph 11. Freight turnover by rail companies in 2011.

## [NON-PUBLIC DATA]

Source: Compiled by the CNC from data provided by the rail companies.

[^34](140) In volume terms Table 9 shows the evolution in the breakdown by company of annual freight carried since 2006. The maximum freight carried was reached in 2007, with 25000 million tonnes. In 2008 and 2009 traffic fell significantly to 17621 t in 2009. Since that time there has been a timid recovery, but in 2011 traffic (19 950 t) was still well below the 2007 peak ( $20 \%$ less). In terms of companies, RENFE-Operadora is the leading operator in the market and, although it has been losing market share in recent years, it still has around [80-90]\% of the market. Between 2008 and 2009 RENFEOperadora lost $30 \%$ of its traffic. Since 2010 it has recovered in absolute terms but more slowly than its competitors, which have gradually gained market share. The second operator in the market is Comsa, with [0-10]\%, followed by Continental Rail ([0-10]\%), Activa Rail ([0-10]\%), Logitren ([0-10]\%) and Tracción Rail ([0-10]\%).

Table 9. Freight carried by rail, by volume (thousand tonnes) and by company. 2006-2011

| Rail company | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2011 Share |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RENFE-Operadora | [...] | [...] | [...] | [...] | [...] | [...] | [80-90]\% |
| Comsa | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Continental Rail | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Activa Rail | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Logitren | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Tracción Rail | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Acciona ${ }^{96}$ | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Total | [...] | [...] | [...] | [...] | [...] | [...] | 100.00\% |
| Total new operators | [...] <br> ([0-10]\%) | [...] <br> ([0-10]\%) | [...] <br> ([0-10]\%) | [...] <br> ([0-10]\%) | $\begin{gathered} {[. . .]} \\ ([10-20] \%) \end{gathered}$ | [...] <br> ([10-20]\%) | [10-20]\% |

Source: Compiled by the CNC
(141) In transport, the volume carried is an incomplete indicator, in so far as the distance travelled can vary significantly. The product of both factors is therefore used as a measurement: freight multiplied by distance ${ }^{97}$. In tonne-kilometres, Table 9 shows that RENFE-Operadora still has a market share of above $[80-90] \%$, and that the other operators keep the same relative position. When one compares RENFE-Operadora's share in tonne-kilometres with its share of turnover, one finds that its turnover is higher than that of other companies by unit of freight carried.

[^35]Table 10. Freight carried by rail, in volume multiplied by distance (million tkm) and by company. 2006$2011{ }^{98}$

| Rail company | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2011 <br> Share |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RENFE-Operadora | [...] | [...] | [...] | [...] | [...] | [...] | [80-90]\% |
| Comsa | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Continental Rail | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Activa Rail | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Logitren | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Tracción Rail | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Acciona ${ }^{99}$ | [...] | [...] | [...] | [...] | [...] | [...] | [0-10]\% |
| Total | [...] | [...] | [...] | [...] | [...] | [...] | 100.00\% |
| Total new operators | $\begin{gathered} {[\ldots]} \\ ([0-10] \%) \end{gathered}$ | $\begin{gathered} {[\ldots]} \\ ([0-10] \%) \end{gathered}$ | $\begin{gathered} {[\ldots]} \\ ([0-10] \%) \end{gathered}$ | $\begin{gathered} {[\ldots]} \\ ([0-10] \%) \end{gathered}$ | $\begin{gathered} {[\ldots]} \\ ([0-10] \%) \end{gathered}$ | $\begin{gathered} {[\ldots]} \\ ([10-20] \%) \end{gathered}$ | [10-20]\% |

Source: Compiled by the CNC
(142) It is also important to analyse what kind of freight each operator carries.

[^36]Table 11 shows the type of freight carried by the operators currently active in Spain.

Table 11. Products carried by rail companies.

| Company | Containers | Steel, construction | Raw materials and fuels | Automotive | Other |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Acciona | [...] | [...] | [...] | [...] | [...] |
| Continental | [...] | [...] | [...] | [...] | [...] |
| Tracción Rail | [...] | [...] | [...] | [...] | [...] |
| Activa Rail | [...] | [...] | [...] | [...] | [...] |
| Comsa Rail | [...] | [...] | [...] | [...] | [...] |
| Logitren | [...] | [...] | [...] | [...] | [...] |
| RENFE- <br> Operadora | [...] | [...] | [...] | [...] | [...] |

Source: Compiled by the CNC from data provided by the rail companies.
(143) According

Table 11, most operators are engaged in container transport. However, RENFEOperadora's competition is reduced significantly in relation to all other products, in particular in relation to steel and automotive products which, in addition to RENFEOperadora [...]. Disregarding container transport, therefore, only RENFE-Operadora and Comsa carry a diversified range of freight, whilst the other operators confine their activities to specific products.
(144) The analysis can also be extended to look at the rail corridors. As can be seen in Table 12, of ADIF's 460 lines, there is more than one operator on only 17 lines, which represents not even $4 \%$ of the total track. Of those 17 lines, there are two operators on 15 , and there are more than two operators on only three lines out of 460 .

Table 12. Freight traffic lines in Spain by number of operators. 2012

| No of operators | No of lines | \% of total lines |
| :--- | :---: | :---: |
| $>3$ operators | 0 | $0 \%$ |
| 3 operators | 2 | $<0.1 \%$ |
| 2 operators | 15 | $3.3 \%$ |
| 1 operator | 443 | $96.7 \%$ |
| Total lines | $\mathbf{4 6 0}$ | $\mathbf{1 0 0 \%}$ |

Source: Compiled by the CNC using data from ADIF.
(145) Analysis has also been carried out of the stretches served by operators between the regions which, according to the analysis in the preceding paragraph, have the greatest flows of rail freight. There seems to be a degree of competition only in container transport. Only between the regions of Catalonia and the Basque Country another three rail companies run, as well as [...]: [...], [...] and [...]. There are only four more regions where there are two operators, as well as [...]: [...] and [...] operate between Madrid and the Community of Valencia and between the Community of Valencia and the Basque Country; [...] and [...] run between Madrid and Andalusia; and [...] and [...] operate between the Basque Country and Zaragoza.

Table 13. Routes served by the new rail companies between the main rail hubs (autonomous communities/cities). 2012.

| Route (main rail hubs) | Type of freight and company |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Containers | Steel products | Bulk and <br> chemical <br> products | Automotive |
|  | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| Madrid-Valencia A.C. | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| Madrid-Catalonia | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |


| Madrid-Galicia | [...] | [...] | [...] | [...] |
| :---: | :---: | :---: | :---: | :---: |
| Madrid-León | [...] | [...] | [...] | [...] |
| Madrid-Basque Country | [...] | [...] | [...] | [...] |
| Madrid-Zaragoza | [...] | [...] | [...] | [...] |
| Andalusia-Valencia A.C. | [...] | [...] | [...] | [...] |
| Andalusia-Catalonia | [...] | [...] | [...] | [...] |
| Andalusia-Galicia | [...] | [...] | [...] | [...] |
| Andalusia-León | [...] | [...] | [...] | [...] |
| Andalusia-Basque Country | [...] | [...] | [...] | [...] |
| Andalusia-Zaragoza | [...] | [...] | [...] | [...] |
| Valencia A.C.-Catalonia | [...] | [...] | [...] | [...] |
| Valencia A.C.-Galicia | [...] | [...] | [...] | [...] |
| Valencia A.C.-León | [...] | [...] | [...] | [...] |
| Valencia A.C.-Basque Country | [...] | [...] | [...] | [...] |
| Valencia A.C.-Zaragoza | [...] | [...] | [...] | [...] |
| Catalonia-Galicia | [...] | [...] | [...] | [...] |
| Catalonia-León | [...] | [...] | [...] | [...] |
| Catalonia-Basque Country | [...] | [...] | [...] | [...] |
| Catalonia-Zaragoza | [...] | [...] | [...] | [...] |
| Galicia-León | [...] | [...] | [...] | [...] |
| Galicia-Basque Country | [...] | [...] | [...] | [...] |
| Galicia-Zaragoza | [...] | [...] | [...] | [...] |
| León-Basque Country | [...] | [...] | [...] | [...] |
| León-Zaragoza | [...] | [...] | [...] | [...] |
| Basque Country-Zaragoza | [...] | [...] | [...] | [...] |

Source: Compiled by the CNC from data provided by the rail companies.
(146) As regards international traffic, only RENFE-Operadora and Comsa are currently (2012) engaged in the international transport of freight originating or with destination in Spain. RENFE-Operadora is the only rail company with a permit to provide services
in Spain which operates on the international (UIC) gauge stretch connecting with the French border ${ }^{100}$.
(147) Lastly, an analysis has been carried out of the degree to which the capacity reserved by rail companies is utilised. Table $\mathbf{1 4}$ gives an indicator of effective use of reserved capacity by rail companies in 2012.
Table 14. Capacity reserved for freight transport in Spain effectively used by rail companies. 2012.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| RENFEOPERADORA | [...] | [...] | [60-70]\% |
| COMSA | [...] | [...] | [80-90]\% |
| CONTINENTAL | [...] | [...] | [60-70]\% |
| ACTIVA RAIL | [...] | [...] | [90-100]\% |
| TRACCIÓN RAIL | [...] | [...] | [80-90]\% |
| LOGITREN | [...] | [...] | [80-90]\% |
| FERROVIAL | [...] | [...] | [80-90]\% |
| Total | 87333 | 60616 | 69\% |

* Trains which ran in addition to those scheduled on each stretch have not been counted for this purpose, in so far as doing so could give too high a figure for actual use of reserved capacity.

Source: Compiled by the CNC using data from ADIF.
(148) It can be seen that, in total, $69 \%$ of the capacity initially reserved was used, and that Continental and RENFE-Operadora were the companies showing the lowest use of that capacity ([60-70]\% and [60-70]\% respectively). That latter figure is in contrast to the figure for RENFE-Operadora's effective use of reserved capacity for freight and passengers, which was more than $[90-100] \%^{101}$.
(149) The degree to which reserved capacity is effectively used can be analysed further, examining in detail the companies' behaviour on the sections of network where more than one rail company operates.

Table 15. Effective use of reserved capacity on the sections where 2 or more companies operate, by rail company. 2012

| ROUTE | RENRE | CONTIN. | ACTIVA | LOGITR. | FBRROV. | COMSA | TRAC. <br> RAIL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |

[^37]| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |


| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |

Source: Compiled by the CNC using data from ADIF.
(150) As can be seen in Table 15, RENFE-Operadora is present on [...] of the 37 sections where more than one rail company operates. On [...] of those sections, RENFEOperadora is the company which makes least use of reserved capacity.

## II.2.3. Access to rolling stock

(151) Purchasing rolling stock, particularly locomotives, is one of the principal costs rail companies incur in order to carry freight by rail. This cost can be particularly high for new entrants which have to meet the cost before operating in the market.
(152) Leasing, of locomotives and wagons, and traction, a service which is closer to the provision of freight transport services, have therefore been developed as alternatives to using directly owned rolling stock.
(153) In the various Community competition precedents, the markets for the sale and leasing of rolling stock have been defined separately, in so far as there are differences which, for practical purposes, mean they are not substitutable markets in the short term.
(154) Compared with acquisition, leasing is significantly cheaper and entails a lower entry risk ${ }^{102}$. Acquiring rail stock can also be slower if approval is needed, and the purchase can take between two and three years.
(155) Furthermore, in several precedents ${ }^{103}$ the European Commission makes a distinction in the leasing of rolling stock depending on whether it is intended for passengers or for freight, in so far as the provision of passenger transport services usually depends on public concessions which customarily involve leasing specific rolling stock ${ }^{104}$. Freight rolling stock, however, is leased by rail operators according to their needs. Furthermore, the European Commission has made a subsequent distinction for the purposes of defining markets between finance leasing and operating leasing ${ }^{105}$.

[^38](156) The Commission specifically analysed the freight wagon leasing market in Case COMP/M.5579 - TLP/ ERMEWA and established various types of supplier: i) traditional rail companies and their subsidiaries, which lease out their wagons, which are usually old and non-specialised; ii) the major wagon leasing companies ${ }^{106}$, which emerged as result of the lack of specialisation of wagons belonging to the traditional operators; iii) there is even a third category, from a practical point of view, - wagon pools, which operate fleets of freight wagons in common to lease to industrial customers or, exceptionally, to rail companies ${ }^{107}$.
(157) At European level, leasing of rolling stock is still very widespread. As part of liberalisation in the United Kingdom, for example, the former public operator was split up into various companies engaged in different activities, and three rolling stock leasing companies set up, which were subsequently privatised. Another example is Denmark, where the incumbent is obliged to supply rolling stock to the companies which provide rail services in the country.
(158) In Spain, however, that option is uncommon. The main route to accessing rolling stock is acquisition. One factor which contributes to that situation is the Iberian gauge, which, because it is different from the international gauge, prevents access to European rolling stock, a feature which is exacerbated by other technical differences and different infrastructure regulations. Purchasing vehicles not suitable for the Spanish network would involve major modifications to the vehicles, thereby considerably increasing their price. This means that in the Spanish case, the markets for access to rolling stock are no bigger than national ${ }^{108}$. Another factor which explains why few alternatives to acquisition have been developed is that RENFE-Operadora, which has an extensive fleet of rolling stock with surplus stock, has developed virtually no leasing business.

## II.2.3.1. Locomotive acquisition and leasing

(159) As shown in Table 16, RENFE-Operadora has [...]\% of the locomotives capable of transporting freight on the RFIG tracks, not including the metric gauge tracks. RENFEOperadora also has [...] locomotives capable of operating on metric gauge tracks, which came from the defunct FEVE.

Table 16. Availability of locomotives (includes directly owned locomotives and those leased from third parties) capable of operating on the RFIG (with the exception of metric gauge tracks). 2011.

|  |  |  |
| :--- | :--- | :--- |

LEASING, COMP/M. 3090 - Volkswagen / Offset / Crescent / LeasePlan /JV and COMP/M. 4844 Fortis/ABN Amro Assets.
${ }^{106}$ VTG, Ermewa, AAE, etc.
${ }^{107}$ Those pools were designed to meet the needs of customers with highly fluctuating demand.
${ }^{108}$ See European Commission Case M. 5579 TLP/ ERMEWA on the wagon leasing market. The Commission found the wagon leasing market to be a European market, and excluded from it those countries with technical peculiarities, in particular those relating to different gauges, such as Spain, Portugal, the United Kingdom, Ireland and Finland. Although the Commission did not rule on locomotives, the same argument applies, in so far as the differences from European countries as regards the gauge, the signalling systems and electrification reinforce the fact that the market is national. In Cases M. 5439 and M. 5263, on the leasing of passenger rolling stock in the United Kingdom, the Commission held that the rolling stock leasing market was a national market, in view of the specific characteristics of the regulations and technical incompatibilities in the United Kingdom. This could be extrapolated to the Spanish situation, where those circumstances are also present.

| RENFE-OPERADORA | $[\ldots]$ | $[80-90] \%$ |
| :--- | :---: | :---: |
| COMSA | $[\ldots]$ | $[0-10] \%$ |
| CONTINENTAL RAIL | $[\ldots]$ | $[0-10] \%$ |
| ACTIVA RAIL | $[\ldots]$ | $[0-10] \%$ |
| TRACCION RAIL | $[\ldots]$ | $[0-10] \%$ |
| ACCIONA | $[\ldots]$ | $[0-10] \%$ |
| FERROVIAL | $[\ldots]$ | $[0-10] \%$ |
| LOGITREN | $[\ldots]$ | $\mathbf{3 5 5}$ |

Source: Compiled by the CNC from data provided by the rail companies.
(160) Table 17 shows the ownership arrangements of the rail companies' locomotives. Most locomotives in the Spanish fleet ([...] of 355, [90-100]\%) are directly owned by the rail companies, due to the dearth of opportunities for leasing in Spain. The percentage is [90-100]\% for metric gauge locomotives.

Table 17. Ownership arrangements of locomotives capable of operating on the RFIG (with the exception of metric gauge tracks). 2011

| Rail company | Total locomotives | Breakdown |  |
| :---: | :---: | :---: | :---: |
|  |  | Directly owned | Leased |
| RENFE-OPERADORA | [...] | [...] | [...] |
| COMSA | [...] | [...] | [...] |
| CONTINENTAL RAIL | [...] | [...] | [...] |
| ACTIVA RAIL | [...] | [...] | [...] |
| TRACCION RAIL | [...] | [...] | [...] |
| ACCIONA | [...] | [...] | [...] |
| FERROVIAL | [...] | [...] | [...] |
| LOGITREN | [...] | [...] | [...] |
| TOTAL | 355 | [...] | [...] |
| Total new operators | [...] | [...] | [...] |

Source: Compiled by the CNC from data provided by the rail companies.
(161) It is also helpful to correlate the availability of locomotives with the freight volume carried
by
each
company.

Table 18 compares the data on the locomotives available with the volume of freight carried by the rail companies (in tkm), measuring the level of locomotive use. RENFEOperadora has the lowest ratio, with one locomotive for every [...] million tkm carried, whilst the average for the new operators is one locomotive for every [...] million tkm carried.

Table 18. Locomotives available to carry freight on the RFIG (with the exception of metric gauge tracks) compared with freight carried (in tkm). 2011

| Rail company | Locomotives available (A) | Million tkm carried <br> (B) | B / A |
| :---: | :---: | :---: | :---: |
| RENFE-OPERADORA | [...] | [...] | [...] |
| COMSA | [...] | [...] | [...] |
| CONTINENTAL RAIL | [...] | [...] | [...] |
| ACTIVA RAIL | [...] | [...] | [...] |
| TRACCION RAIL | [...] | [...] | [...] |
| ACCIONA | [...] | [...] | [...] |
| FERROVIAL | [...] | [...] | [...] |
| LOGITREN | [...] | [...] | [...] |
| TOTAL | 355 | 9157 | [...] |
| Total new operators | [...] | [...] | [...] |

Source: Compiled by the CNC from data provided by the rail companies.
(162) Table 19 shows the locomotives for freight transport on the RFIG that were sold in Spain between 2006 and 2011, according to data collected from the operators. RENFEOperadora is the company which purchased the highest number of locomotives, having purchased [...] locomotives in 2006. Continental is the new entrant which purchased the highest number of locomotives in that period ([...]).

Table 19. Locomotives purchased by rail companies for freight transport on the RFIG (with the exception of metric gauge tracks). 2006-2011

| Rail company | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RENFE- <br> OPERADORA | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| CONTINENTAL | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| TRACCIÓN | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| ACCIONA | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| COMSA | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| TOTAL | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |

[^39](163) As regards the origin of the sellers of locomotives, as can be seen in Graph 12, Bombardier was the manufacturer which sold most locomotives in the period ([7080]\% of the sales recorded), followed by Vossloh and CAF, which each sold [0-10] and $[0-10] \%$. Those companies are all rolling stock manufacturers, with the exception of Integria, which belongs to RENFE-Operadora.

Graph 12. Market share of the sale of locomotives in Spain for freight transport on the RFIG (with the exception of metric gauge tracks). 2006-2011
[NON-PUBLIC DATA]
Source: Compiled by the CNC from data provided by the rail companies
(164) As regards locomotive leasing, there are three groups of suppliers: manufacturers, the rail operators themselves and specialised leasing companies. In Spain, there is very little leasing between companies because, on the one hand, the new operators have a very small fleet of locomotives, which means that they can only lease out very few locomotives, and on the other hand, the only rail company with an extensive locomotive fleet with surplus stock, RENFE-Operadora, has not leased out a single one. The rail operators have indicated that in practice there is only one locomotive leasing company in Spain, Alpha Trains.
(165) Table 20 sets out the locomotives leased in 2011, by leasing company and lease-taker.

Table 20. Leasing of locomotives and leasing companies. 2011

| Rail company | Number of locomotives leased | Leasing company |
| :---: | :---: | :---: |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |

Source: Compiled by the CNC from data provided by the rail companies.

## II.2.3.2. Purchase and leasing of wagons

(166) As

Table 21 shows, RENFE-Operadora has more than [90-100]\% of the wagons capable of transporting freight on the RFIG tracks, with the exception of metric gauge tracks. RENFE-Operadora also has 1100 wagons which came from FEVE.

Table 21. Availability of wagons (including directly owned wagons and those leased from third parties) capable of operating on the RFIG (with the exception of metric gauge track). 2011.

| Rail company | Total wagons | \% of the total |
| :--- | :---: | :---: |
| RENFE-OPERADORA | $[\ldots]$ | $[\mathbf{9 0 - 1 0 0 ] \%}$ |
| COMSA | $[\ldots]$ | $[0-10] \%$ |
| CONTINENTAL RAIL | $[\ldots]$ | $[0-10] \%$ |
| ACTIVA RAIL | $[\ldots]$ | $[0-10] \%$ |
| ACCIONA | $[\ldots]$ | $[0-10] \%$ |
| LOGITREN | $\mathbf{1 4} \mathbf{4 3 0}$ | $[0-10] \%$ |
| TOTAL | $[\ldots]$ | $\mathbf{1 0 0 . 0 0 \%}$ |
| TOTAL NEW OPERATORS | $[0-10] \%$ |  |

(167) Source: Compiled by the CNC using data from the rail companies.Table 22 shows the ownership arrangements of the rail companies' wagons capable of operating on the RFIG (excluding metric gauge tracks). Most of the wagons in the Spanish fleet ([90-100]\%) and [...] are directly owned.

Table 22. Ownership arrangements of available wagons capable of operating on the RFIG (with the exception of metric gauge tracks). 2011

| Rail company | Total wagons | Breakdown |  |
| :---: | :---: | :---: | :---: |
|  |  | Directly owned | Leased |
| RENFE-OPERADORA | [...] | [...] | [...] |
| COMSA | [...] | [...] | [...] |
| CONTINENTAL RAIL | [...] | [...] | [...] |
| ACTIVA RAIL | [...] | [...] | [...] |
| ACCIONA | [...] | [...] | [...] |
| LOGITREN | [...] | [...] | [...] |
| TOTAL | 14430 | [...] | [...] |
| Total new operators | [...] | [...] | [...] |

Source: Compiled by the CNC from data provided by the rail companies.
(168) It is helpful to correlate the availability of wagons with the freight carried by each company. Table 23 compares the wagons available with the volume (in tkm) of freight carried by the rail companies, which measures the level of wagon use. RENFEOperadora has the lowest wagon use ratio, with less than one wagon for every [...] tkm carried whilst the average for the new operators is one wagon for every [...] tkm
carried. That difference could suggest that RENFE-Operadora has more available or spare capacity than the other companies, which would use those resources more efficiently. It is also noted that a number of rail companies operate in the market without having access to wagons [...].
Table 23. Wagons available to carry freight on the RFIG (with the exception of metric gauge tracks) compared with freight carried (in tkm). 2011

| Rail company | Available wagons (A) | Million (km carried <br> (B) | B/A |
| :--- | :---: | :---: | :---: |
| RENFE-OPERADORA | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| COMSA | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| CONTINENTAL RAIL | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| ACTIVA RAIL | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| TRACCION RAIL | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| ACCIONA | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| LOGITREN | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| FERROVIAL | $\mathbf{1 4} \mathbf{4 3 0}$ | $[\ldots]$ | $[\ldots]$ |
| TOTAL | $[\ldots]$ | $[\ldots]$ |  |
| Total new operators |  |  |  |

Source: Compiled by the CNC from data provided by the rail companies.
(169)

Table 24 shows the number of wagons purchased by the rail companies in the period 2006-2011. Once again, RENFE-Operadora was the company which purchased the highest number of wagons ([..]), followed by Comsa, [...]. Continental purchased [...] and Acciona [...]. Between 2009 and 2011, [...].

Table 24. Wagons purchased by rail companies to carry freight on the RFIG (with the exception of metric gauge tracks). 2006-2011.

|  | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RENFE- <br> OPERADORA | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| COMSA | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| CONTINENTAL | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| ACCIONA | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| TOTAL | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |

Source: Compiled by the CNC using data provided by the rail companies.
(170) According to information gathered from the operators, between 2006 and 2011 wagons were purchased exclusively from two Spanish manufacturers, Tafesa ([80-90]\% of the wagons sold) and Talleres Alegría ([10-20]\%). Tafesa, the principal supplier of wagons to the rail companies, in fact ceased trading in 2012, according to information provided by the operators.

Graph 13. Sales of wagons to carry freight on the RFIG (with the exception of metric gauge tracks). 20062011.

## [NON-PUBLIC DATA]

Source: Compiled by the CNC from data provided by the rail companies.
(171) As regards the leasing of wagons, in 2006-2011 the leasing companies were AAE, Construrail, VTG and Transfesa.

Table 25. Wagons leased and leasing companies. 2011

| Company | Number of wagons leased | Leasing company |
| :--- | :---: | :---: |
| CONTINENTAL | $[\ldots]$ | $[\ldots]$ |
| ACTIVA | $[\ldots]$ | $[\ldots]$ |
| LOGITREN | $[\ldots]$ | $[\ldots]$ |
| COMSA | $[\ldots]$ | $[\ldots]$ |

Source: Compiled by the CNC from data provided by the rail companies.

## II.2.4. Repair and maintenance of rolling stock

(172) Maintaining and repairing rolling stock represents another very significant part of rail costs. According to the data contained in the 2010 Strategic Plan to Stimulate Freight Transport in Spain, maintenance costs could represent $80 \%$ of total costs for a freight train ${ }^{109}$, although that percentage could vary appreciably from company to company.
(173) The European Commission has found ${ }^{110}$ three separate kinds of locomotive and wagon maintenance of the purposes of defining markets: i) "light" maintenance, consisting of repairs and regular checks and including component exchanges; ii) secondly, "heavy" maintenance, which involves more substantial interventions to the vehicle, and is a less frequent form of maintenance which can paralyse the rolling stock for several weeks; iii) and a third kind consisting of the refurbishment of stock, such as modernisation to increase productivity, adapt to changes in the regulations (safety regulations in particular) etc.
(174) As regards wagons, however, the Commission does not differentiate between the provision of maintenance services and the provision of repair services. Because this rolling stock is less technically complex it does not require different resources for the two activities.
(175) In terms of the geographical market, the European Commission has identified national markets for maintenance and repair, for reasons of cost-effectiveness and practicality ${ }^{111}$. On some occasions, it has even indicated that there may be a regional market because it is inefficient for a company to move rolling stock for maintenance purposes only to a different region from that in which it operates ${ }^{112}$.
(176) In Spain, workshops do not always carry out the three kinds of maintenance (light and heavy maintenance and refurbishment). Furthermore, there is a distinction between the repair and maintenance of wagons and of locomotives, given the different characteristics and greater technical component of locomotive maintenance and repair.

## II.2.4.1 Maintenance and repair of locomotives

(177) In relation to locomotives, RENFE-Operadora directly or indirectly provides maintenance and repair services to most competing companies. On the one hand, RENFE-Operadora has an extensive network of locomotive maintenance and repair workshops through its subsidiary Integria. On the other hand, it has set up joint ventures with the main locomotive manufacturers, which all have the same structure and undertake maintenance and repair for each make of locomotive respectively:

- Actren, Mantenimiento Ferroviario, S.A. (49\%): incorporated in 2007, 51\% owned by $\mathrm{CAF}^{113}$ and $49 \%$ by RENFE-Operadora.
- Btren Mantenimiento Ferroviario, S.A. (49\%): the company was created by Bombardier Transportation ${ }^{114}$ ( $51 \%$ ) and RENFE-Operadora ( $49 \%$ ).

[^40]- Erión, Mantenimiento Ferroviario, S.A.: the company is owned by the rail stock manufacturer VOSSLOH ${ }^{115}$ ( $51 \%$ ) and RENFE-Operadora (49\%).
- Irvia ${ }^{116}$ mantenimiento ferroviario, S.A.: In 2008, Alstom Transporte ${ }^{117}$ S.A. ( $51 \%$ ) and RENFE-Operadora ( $49 \%$ ) set up this company, whose company objects are the provision of comprehensive maintenance service for trains and rail facilities, and the maintenance or repair of all manner of industrial, electronic or mechanical components.
- Nertus Mantenimiento Ferroviario, S.A.: In 2002, set up by the former RENFE ( $49 \%$ ) and Siemens ${ }^{118}(51 \%)$ to provide comprehensive rolling stock maintenance services.
- Tarvia ${ }^{119}$ Mantenimiento Ferroviario S.A.: created in 2008, owned by RENFEOperadora ( $49 \%$ ) and Talgo ${ }^{120}(51 \%)$, for joint train maintenance.
(178) In all those companies, the equipment manufacturer holds $51 \%$ of the capital and RENFE-Operadora the remaining $49 \%$. It is pointed out that those companies do not compete amongst themselves, but, rather, each repairs and maintains the locomotives manufactured by its respective manufacturer. From the responses received from the manufacturers, most have in fact stated that [...].
(179) Further, those locomotive repair and maintenance activities are in many cases carried out at RENFE Integria's facilities by RENFE-Operadora personnel.
(180) Table 25 shows the locomotive maintenance expenditure of the various rail companies indicating the company which performs the maintenance and repair operations. In the case of operations carried out in the Integria network, the expenditure also includes operations carried out by personnel belonging to one of the manufacturers' investee companies referred to above. As can be seen, through Integria, RENFE-Operadora has a market share of practically $[90-100] \%$. That market is characterised by the small number of participating companies with only ERION also having a significant presence in it. Not only is RENFE-Operadora's major presence in the market evident through Integria but it also has holdings in the other two companies which currently maintain the locomotives of the operators on the market, ERION and BTREN. The only companies present in the market which do not have links with the incumbent are GMF,

[^41]which belongs to the Comsa Emte group and Euskotren. The joint market share of Comsa Emte and Euskotren barely reaches [0-10]\% ${ }^{121}$.

Table 25. Locomotive maintenance expenditure of rail companies and breakdown by maintenance company. 2011

| Company | Locomotive maintenance expenditure | Maintenance company | Amount per company |
| :---: | :---: | :---: | :---: |
| RENFEOPERADORA | [...] | [...] | [...] |
|  |  | [...] | [...] |
| COMSA | [...] | [...] | [...] |
|  |  | [...] | [...] |
|  |  | [...] | [...] |
| ACTIVA | [...] | [...] | [...] |
| CONTINENTAL | [...] | [...] | [...] |
|  |  | [...] | [...] |
| TRACCIÓN | [...] | [...] | [...] |
|  |  | [...] | [...] |
| LOGITREN | [...] | [...] | [...] |
| EUSKOTREN | [...] | [...] | [...] |
| ACCIONA | [...] | [...] | [...] |
| TOTAL | [...] |  |  |

Source: Compiled by the CNC using data from the rail companies.

Graph 144. Breakdown of locomotive maintenance expenditure of rail companies in Spain by maintenance company. 2011

## [NON-PUBLIC DATA NON-PUBLIC DATA]

Source: Compiled by the CNC from data provided by the rail companies.
(181) Graph 15 shows maintenance carried out for third parties, that is to say, excluding the self provision of maintenance services between companies in the same group. It can be seen that Integria carries out far fewer operations for third parties than intragroup

[^42]operations. It should be recalled that RENFE-Operadora has holdings in both ERION and BTREN.

Graph 15. Expenditure on locomotive maintenance provided to third parties* in Spain by maintenance company. 2011
[NON-PUBLIC DATA]

* NB: the services provided by ERION to RENFE-Operadora have been treated as provision to third parties for the purposes of this graph.

Source: Compiled by the CNC from data provided by the rail companies.

## II.2.4.2 Wagon maintenance and repair

(182) There are various actors providing wagon maintenance and repair services in the Spanish market: Transervi, Invatra, Talleres Celada, Auresa, Talleres Alegría, Talleres Requena, GMF and RENFE Integria ${ }^{122}$, as well as other smaller undertakings.
(183) RENFE-Operadora, through its subsidiary Integria, carries out [90-100]\% of maintenance work, primarily because the public enterprise has an extensive fleet of rolling stock. RENFE-Operadora maintains its own fleet, practically entirely, at Integria's workshops. A few other companies provide their own wagon maintenance and repair services, such as [...], whose maintenance is carried out entirely through [...], and [...], which carries out its maintenance through [...].

[^43]Table 266. Wagon maintenance and repair expenditure of rail companies and breakdown by maintenance company . 2011.

| Rail company | Wagon maintenance expenditure | Maintenance company | Amount per company |
| :---: | :---: | :---: | :---: |
| RENFE-OPERADORA | [...] | [...] | [...] |
|  |  | [...] | [...] |
| COMSA | [...] | [...] | [...] |
| CONTINENTAL | [...] | [...] | [...] |
|  |  | [...] | [...] |
|  |  | [...] | [...] |
|  |  | [...] | [...] |
| ACTIVA | [...] | [...] | [...] |
| ACCIONA | [...] | [...] | [...] |
| LOGITREN | [...] | [...] | [...] |
| EUSKOTREN | [...] | [...] | [...] |
| TOTAL | [...] |  |  |

Source: Compiled by the CNC from data provided by the rail companies
(184) Graph 16 shows the maintenance expenditure split in Spain by wagon maintenance and repair service provider, including self provision.

Graph 16. Breakdown of wagon maintenance and repair expenditure of rail companies in Spain, by maintenance company. 2011

## [NON-PUBLIC DATA]

Source: Compiled by the CNC from data provided by the rail companies
(185) Graph 17, for its part, it shows the breakdown of maintenance expenditure in Spain by wagon maintenance and repair service provider, not including self provision to companies in the same group. The main difference is that Integria, RENFE-Operadora's network, becomes the fourth company, in so far as most of its maintenance services are on a self provision basis.

Graph 17. Breakdown of expenditure on wagon maintenance and repair services to third parties, by maintenance company. 2011

## [NON-PUBLIC DATA]

Source: Compiled by the CNC from data provided by the rail companies.

## II.2.5. Additional, complementary and ancillary services

(186) The Strategic Plan to Stimulate Freight Transport in Spain finds that energy consumption can represent $21 \%$ of the total cost of a freight train and that expenditure at terminals amounts to $9 \%$ of the total. Although companies' cost structures can indeed vary greatly, the Strategic Plan shows that expenditure at terminals is a significant for rail companies. In 2011 ADIF paid 341.8 million euros for additional, complementary and ancillary services ${ }^{123}$ : 49.6 million euros on logistics services and 292.2 million euros for the supply of energy.
(187) In the competition precedents analysed by the CNC, no definition of the relevant market has been laid down for all the services provided at terminals. The European Commission has, however, established that certain cargo handling services in sheds and shunting are separate markets ${ }^{124}$. In those precedents the geographical area comprising the relevant market was considered to be that which serves the terminal.
(188) On the demand side, additional, complementary and ancillary services are independent and not mutually substitutable. On the supply side, Spanish regulations have established statutory limitations on the provision of those services. Additional services can only be provided by the infrastructure administrator, which is obliged to supply them to companies which so request. Complementary and ancillary services can be provided by the infrastructure administrator, service providers on the basis that they assume the risk involved, and the rail companies themselves, exclusively as self provision.
(189) There are 75 principal logistics facilities in Spain ${ }^{125}$, and their provision of complementary services ${ }^{126}$, divided into shunting services and intermodal transport unit (ITU) handling services ${ }^{127}$, is summarised in Table 27. As can be seen, the services relating to shunting are provided by ADIF at the 75 principal stations (there is no terminal where those services are performed on a risk-assumption basis), although at 12 stations the services are provided by a joint undertaking, whose capital is held by ADIF together with a third party, and at one terminal services are provided indirectly by a third party. Cargo handling services are performed at 31 of the 75 principal logistics facilities, and ADIF provides the service at the majority ( 37 stations, of which 16 are managed directly by ADIF and another 11 are managed indirectly). The handling service is provided by companies independent of ADIF at only 4 stations.

[^44]Table 27. Type of provision of complementary services at principal rail logistics facilities, by logistics operation type

|  | Shunting operations ${ }^{128}$ | ITU handling ${ }^{129}$ |
| :--- | :---: | :---: |
| DIRECT PROVISION* | 62 | 16 |
| JOINT PROVISION** | 12 | - |
| INDIRECT PROVISION*** | 1 | 11 |
| RISK-ASSUMPTION**** | - | 4 |
| NO SERVICE | - | 44 |
| FACILITIES TOTAL | $\mathbf{7 5}$ | $\mathbf{7 5}$ |

* Direct provision is performed by ADIF using its own resources. ** Provision shared between ADIF and a private entity. ${ }^{* * *}$ Indirect provision is by contractor undertakings on behalf of ADIF. ${ }^{* * * *}$ The services are provided by service providers, which assume the risk of loss involved in operation of the service.
Source: ADIF
(190) At the majority of principal logistics facilities, ADIF has reserved the right to supply diesel. Only $10^{130}$ of the 28 fixed diesel supply points are not at principal logistics facilities.
(191) As regards self provision, the network statement sets out the freight logistics facilities where self provision is permitted ${ }^{131}$. According to the 2012 statement, none of the facilities which allow self provision are principal logistics facilities, relegating that form of provision to smaller facilities. Self provision is currently permitted at 84 facilities: 75 facilities included in ADIF's 2012 network statement and a further nine included subsequently. Only three rail companies provide their own services at any terminal. There is at least one self provider at only 38 of those 84 terminals: ADIF provides its own services at [...] terminals, Comsa at [...] and Activa at [...]. Only three terminals have more than one rail company providing its own services: at Roda de Andalucía ([...] and [...]), Redondela ([...] and [...]) and at Oural ([...] and [...]).

Table 28. Facilities where there is self provision of services, indicating the date on which the self provision regime was authorised. 2012

| Facilities included in the 2012 network | RENFE | COMSA | ACTIVA RAIL |
| :--- | :--- | :--- | :--- |

[^45]| statement |  |  |  |
| :---: | :---: | :---: | :---: |
| A Susana | [...] | [...] | [...] |
| Alconera (Cementos Balboa) | [...] | [...] | [...] |
| Avila | [...] | [...] | [...] |
| Canfranc | [...] | [...] | [...] |
| Celta | [...] | [...] | [...] |
| Cuarte de Huerva | [...] | [...] | [...] |
| Curtis | [...] | [...] | [...] |
| Flix | [...] | [...] | [...] |
| Fuencarral-APT. | [...] | [...] | [...] |
| Girona | [...] | [...] | [...] |
| Herradón-La Cañada | [...] | [...] | [...] |
| Jerez de los Caballeros | [...] | [...] | [...] |
| La Felguera | [...] | [...] | [...] |
| La Roda de Andalucía | [...] | [...] | [...] |
| Les Borges del Camp | [...] | [...] | [...] |
| Llano de Granja | [...] | [...] | [...] |
| Manresa | [...] | [...] | [...] |
| Montcada Blf. | [...] | [...] | [...] |
| Monzón Río Cinca | [...] | [...] | [...] |
| Mora de Rubielos | [...] | [...] | [...] |
| Peñarroya Pueblo Nuevo | [...] | [...] | [...] |
| Pinto | [...] | [...] | [...] |
| Ponferrada | [...] | [...] | [...] |
| Redondela | [...] | [...] | [...] |
| Santiago de Compostela | [...] | [...] | [...] |
| Selgua | [...] | [...] | [...] |
| Tamarite Altorricón | [...] | [...] | [...] |


| Teruel | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| :--- | :---: | :---: | :---: |
| Zafra | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| Facilities added in 2012 | RBNFE | COMSA | ACTIVA RAIL |
| Aranda de Duero Montecillo | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| Els Monjos | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| Granollers-Canovellas | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| L'Arboc | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| Oural | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| Sarria | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| Teixeiro | $[\ldots]$ | $[\ldots]$ | $[\ldots]$ |
| Vedra-Rivadulla | $[\ldots]$ | $[\ldots]$ |  |
| Vic |  |  | $\left[\begin{array}{l}\text { [.... }\end{array}\right.$ |

Source: ADIF.
(192) Lastly, the cooperation agreements between ADIF and Puertos del Estado, under the LSF, allow ADIF to take over competences in relation to additional track access services at the State general interest ports. According to Graph 18, there are Connection Agreements already in place with 13 ports. In relation to provision of the additional access service, the cooperation agreement with ADIF is in place at all the ports, with the exception of Barcelona, Cartagena and Málaga.

1. Graph 18. Agreements between ADIF and the port authorities. $2011{ }^{132}$.


Source: Guide to procedures for coordinated management of rail and port complexes (Guía de procedimientos para la gestión coordinada de los complejos ferroportuarios). Puertos del Estado and ADIF.

[^46]
## III. INDICATORS OF COMPETITIVENESS IN THE RAIL FREIGHT MARKET IN SPAIN

(193) Certain indicators are shown below relating to competitiveness and efficiency in the provision of rail freight services in Spain, by comparing them with other countries in Europe and the OECD. The analysis points out the situation in the EU countries, especially on the largest European economies (Germany, the United Kingdom, France and Italy).
III.1. The Spanish rail network has a different rail structure from other European countries and less intensive use of the rail infrastructure
(194) Table 29 compares the size of the rail networks used for freight transport.

Table 29. Infrastructure length (km). 2011

| Country | Network structure (gauges, as \%) |  |  | Network length (km) |
| :---: | :---: | :---: | :---: | :---: |
|  | UIC | Less than UIC | More than UIC |  |
| GERMANY | 100\% | 0\% | 0\% | 33707 |
| FRANCE | 99\% | 1\% | 0\% | 29841 |
| POLAND | 97\% | 0\% | 3\% | 19702 |
| UNITED <br> KINGDOM | 94\% | 4\% | 2\% | 18725 |
| ITALY | 100\% | 0\% | 0\% | 17009 |
| SPAIN | 15\% | 10\% | 75\% | 15543 |
| ROMANIA | 99\% | 0\% | 1\% | 10777 |
| SWEDEN | 100\% | 0\% | 0\% | 9957 |
| CZECH <br> REPUBLIC | 100\% | 0\% | 0\% | 9468 |
| HUNGARY | 97\% | $3 \%$ | 0\% | 7893 |
| FINLAND | 0\% | 0\% | 100\% | 5919 |
| AUSTRIA | 100\% | 0\% | 0\% | 5039 |
| BULGARIA | 97\% | 3\% | 0\% | 4097 |
| SLOVAKIA | 96\% | 1\% | 3\% | 3622 |
| BELGIUM | 100\% | 0\% | 0\% | 3578 |


| HOLLAND | $100 \%$ | $0 \%$ | $0 \%$ | 2886 |
| :--- | :---: | :---: | :---: | :---: |
| PORTUGAL | $0 \%$ | $7 \%$ | $93 \%$ | 2842 |
| DENMARK | $100 \%$ | $0 \%$ | $0 \%$ | 2131 |
| IRELAND | $0 \%$ | $0 \%$ | $100 \%$ | 1919 |
| LATVIA | $0 \%$ | $2 \%$ | $98 \%$ | 1897 |
| LITHUANIA | $1 \%$ | $0 \%$ | $99 \%$ | 1767 |
| SLOVENIA | $100 \%$ | $0 \%$ | $0 \%$ | 1228 |
| ESTONIA | $0 \%$ | $0 \%$ | $\mathbf{2 \%}$ | $\mathbf{1 0 0 \%}$ |
| LUXEMBOURG | $100 \%$ | $\mathbf{8 5 \%}$ | $\mathbf{1 3 \%}$ | $\mathbf{2 1 0} \mathbf{6 0 9}$ |
| TOTAL |  |  |  |  |

Source: International Union of Railways (2010), International Railway Statistics.
(195) Spain is the sixth country in terms of rail network length, with a total length close to that of the United Kingdom and Italy. Germany and France are the two EU-27 countries with most kilometres of infrastructure, at 33707 and 29841 km respectively. Spain has 15543 km.
(196) In relative terms, the length of the Spanish infrastructure in relation to the size of the territory is less than in Germany, Italy, France and the United Kingdom (

Table 30). However, the ratio between the length of the Spanish network and the volume of freight carried (measured in tonne-kilometres) is much higher, indicating less intensive use of the Spanish network than in the other countries.

Table 30. Length of the rail network in relation to the total surface area of the country and the volume of freight carried

| Country | Network <br> length (km) | Surface area <br> $\left(\mathrm{km}^{2}\right)$ | tkm (million) | Network <br> length/ surface <br> area | Network <br> length/ tkm <br> (million) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Germany | 33707 | 357104 | 107317 | $\mathbf{0 . 0 9 4}$ | $\mathbf{0 . 3 1}$ |
| France | 29841 | 675417 | 29965 | $\mathbf{0 . 0 4 4}$ | $\mathbf{0 . 9 9}$ |
| United <br> Kingdom | 18725 | 244023 | 18576 | $\mathbf{0 . 0 7 7}$ | $\mathbf{1 . 0 1}$ |
| Italy | 17009 | 301338 | 18616 | $\mathbf{0 . 0 5 6}$ | $\mathbf{0 . 9 1}$ |
| Spain | 15543 | 504645 | 9211 | $\mathbf{0 . 0 3 1}$ | $\mathbf{1 . 6 9}$ |

Source: Compiled by the CNC from data provided by the International Union of Railways (2010), International Railway Statistics
(197) In addition, it is notable in Spain that only a very small percentage of track (15\%) is of international gauge (UIC) ${ }^{133}$, something which occurs in very few countries. In addition to Spain, the UIC gauge represents less than $90 \%$ of track in only six countries, on the geographical periphery of the EU-27: Finland, Portugal, Ireland, Estonia, Latvia and Lithuania.
III.2. Rail represents a small proportion of the total in Spain, and in the last decade that proportion has declined more than in other countries
(198) In 2010, a total of 9211 million tonne-kilometres (tkm) of freight were carried by rail in Spain, a much lower figure than in its main European partners, such as Germany (107 317 million tkm by rail), France ( 29965 million), the United Kingdom (18 576 million) and Italy ( 18616 million). Deflating those figures by GDP, it is stressed that the volume of freight carried by rail in Spain represents a much lower proportion of the total than in the other principal European economies. According to

[^47]Table 31 Germany is the country where rail represents the highest proportion, followed a long way behind by France. The United Kingdom and Italy show rail as a relatively low proportion, although likewise higher than in Spain.

Table 31. Txkm/GDP. 2010

| COUNTRY | Tkm (million) | GDP (million €) | Tkm/GDP |
| :--- | :---: | :---: | :---: |
| Germany | 107317 | 2496200 | $\mathbf{4 . 3}$ |
| France | 29965 | 1937261 | $\mathbf{1 . 5}$ |
| Italy | 18616 | 1551886 | $\mathbf{1 . 2}$ |
| United Kingdom | 18576 | 1709607 | $\mathbf{1 . 1}$ |
| Spain | 9211 | 1048883 | $\mathbf{0 . 9}$ |

Source: Compiled by the CNC from data provided by Eurostat.
(199) The analysis of the modal split of inland freight transport in 2010 (see Graph 19) highlights the absolute primacy of freight transport by road in Spain, which represented $95.8 \%$ of inland freight transport, a percentage almost 20 percentage points above the Community average. Rail represented $4.2 \%$ of inland transport in Spain, far below the Community average ( $17.1 \%$ ) and the average in countries such as Germany ( $22.2 \%$ of the total), France (13.5\%), the United Kingdom (11.2\%) and Italy (9.6\%). There was practically no transport on inland waterways in Spain ( $0 \%$ ), whereas in other countries (Germany, $12.9 \%$; France, $4.3 \%$ ) it was significant.

Graph 19. Modal split of inland freight transport, as a \% of volume by distance carried (tkm). 2010.


Source: Compiled by the CNC from data provided by Eurostat.
(200) The above findings apply not only to the comparison with the main European economies. Broadening the comparison to the rest of the EU-27, Spain is one of the countries where rail represents one of the lowest proportions of inland freight transport, ahead of only Luxembourg, Greece and Ireland.

Graph 20. Proportion represented by rail of inland freight transport, as a \% of volume by distance carried (tkm) in the EU-27. 2010.


Source: Eurostat.
(201) In the last decade, the proportion represented by rail transport of total inland freight transport in Spain fell significantly, declining from $7.2 \%$ to $4.2 \%$ (see

Table 32). That drop was sharpest in the period before rail was liberalised (2000-2005), whilst in the following five years (2005-2010) the fall slowed but continued. The present loss of share could also illustrate the fact that rail has been less able to maintain its presence in the market in the face of the lower volume of freight carried in Spain as a result of the economic crisis and Spain's drive to invest in roads ${ }^{134}$.
(202) The fall in the proportion represented by rail of total freight transport is not exclusive to Spanish market, although it has been more intense. Last decade rail freight transport in the EU-27 experienced a slightly downwards trend, falling from $19.7 \%$ to $17.1 \%$ of total freight carried. However, the proportion which rail represents of total freight transport has evolved unevenly in international terms. Germany has experienced a markedly upward trend from 2003, resulting in a three percentage growth as a proportion of national inland transport between 2000 and 2010. The United Kingdom has also experienced an upward trend in rail, increasing from $9.8 \%$ to $11.2 \%$. In France and Italy, in contrast, the proportion of rail freight transport has declined, much more in the case of France (from $20.6 \%$ in 2000 to $13.5 \%$ in 2010) than of Italy (from $11 \%$ to $9.6 \%$ ). In any event, however, the drop in Spain is, in relative terms, the most pronounced (from $7.2 \%$ to $4.2 \%$, that is to say, a $42 \%$ decline).

[^48]Table 32. Evolution of the proportion represented by rail freight transport of total inland freight carried in each country, measured in volume by distance (tkm). 2000-2010

| COUNTRY | 2000 | 2005 | 2010 |
| :--- | :---: | :---: | :---: |
| EU-27 | $\mathbf{1 9 . 7 \%}$ | $\mathbf{1 7 . 7 \%}$ | $\mathbf{1 7 . 1 \%}$ |
| GERMANY | $19.2 \%$ | $20.3 \%$ | $22.2 \%$ |
| FRANCE | $20.6 \%$ | $16.0 \%$ | $13.5 \%$ |
| UNITED KINGDOM | $9.8 \%$ | $11.7 \%$ | $11.2 \%$ |
| ITALY | $11.0 \%$ | $9.7 \%$ | $9.6 \%$ |
| SPAIN | $7.2 \%$ | $4.7 \%$ | $4.2 \%$ |

Source: Eurostat.

Graph 21. Evolution of rail freight transport (tkm). 2000-2010


Source: Compiled by the CNC from data provided by Eurostat.
III.3. Spain is one of the countries where new companies have least penetrated the rail freight transport market in relative terms
(203) The European Commission publishes the market shares of all but the principal railway undertaking of Member States, calculated for freight and passengers combined. The remaining share up to $100 \%$ would seem to correspond to the incumbent in each market, the traditional monopoly holder. The data can be seen in Graph 22.

Graph 22. Market share of rail companies entering* the rail freight market, in tonne-kilometres carried. 2010.


* Total market shares of all operators with the exception of the main operator, prepared using information supplied to the European Commission by the Member States.
Source: European Commission, Report from the Commission to the Council and the European Parliament on monitoring development of the rail market. COM(2012)0459.
(204) Spain is one of the EU-27 countries where new companies have been least successful in penetrating the market. Amongst the largest European countries, Spain had the lowest penetration by new companies in rail freight transport in 2010 ( $8.1 \%$ ), whilst market entrants represented $20 \%$ in France, $24 \%$ in Italy, $25 \%$ in Germany and $51 \%$ in the United Kingdom.
(205) In relation to those comparisons, the European Commission has indicated that the lack of competition is one of the reasons for poor quality and lack of efficiency of services, with the effect that the countries which have gone furthest in opening up the rail market have shown improvement in the quality of services and a rising market share of rail compared with other modes of transport ${ }^{135}$.


## III.4. According to various indicators, the Spanish rail incumbent is relatively inefficient

(206) Based on various indicators, it has been analysed RENFE-Operadora's efficiency in using resources ${ }^{136}$ compared with other incumbent operators in other countries in the EU- $27^{137}$, for which data are available ${ }^{138}$. Although those comparisons do not represent

[^49]the whole market, they are a strong indicator, in so far as each incumbent represents a high proportion of its respective national market.
a) Efficiency in utilising labour resources (train drivers)
(207) Graph 23 shows the ratio, in tkm, between freight carried and the number of train drivers of every company company ${ }^{139}$. Prima facie, the higher the ratio, the more efficient the company is in utilising its resources. RENFE-Operadora has one of the lowest ratios (1.5 tkm per train driver), ahead of only the incumbent companies in Bulgaria and Belgium. It has the same ratio as the French SNCF and is much lower than the German DB (5.7).

Graph 23. Ratio of tonne-kilometres carried to number of train drivers. 2010


Source: Compiled by the CNC from data provided by the International Union of Railways (2010), International Railway Statistics.

[^50]Graph 24 sets out the relationship between companies' total operating income and their number of drivers ${ }^{140}$. A high ratio indicates that each driver generates more income for the company. The German rail company DB AG appears to generate the highest income per driver, far ahead of RENFE-Operadora (0.5). RENFE-Operadora is also behind SNCF (1.2) and the Italian company FS (0.9).

[^51]Graph 24. Relationship between income from freight business and number of drivers ${ }^{\mathbf{1 4 1}} \mathbf{.} 2010$.


Source: Compiled by the CNC from data provided by the International Union of Railways (2010), International Railway Statistics.
(209) To eliminate any effect which public contributions may have on the companies' income,

[^52](210) Graph 25 compares the companies' income, after deduction of public contributions, with the number of each rail company's train drivers. A high indicator could signal that the drivers perform a higher level of activity in the rail company in relative terms. RENFEOperadora is midway in the table, although with ratio well below DB AG, CFL and SNCF.

Graph 25. Relationship between income (net of public contributions) and train drivers. 2010


Source: Compiled by the CNC from data provided by the International Union of Railways (2010), International Railway Statistics.
b) Efficiency in utilisation of fixed assets (rolling stock)
(211) Another way of measuring the efficient use of resources is the utilisation of rolling stock - locomotives and wagons. In terms of cargo carried, in tkm per locomotive ${ }^{142}$, it is shown that the Estonian EVR is still the rail company with the best indicator. RENFE-Operadora is midway in the table (13.4), well below the Portuguese CP Carga (22.1) and the German company DB (20.5).

[^53]Graph 26. Relationship between tonne-kilometres carried and number of locomotives. 2010


Source: Compiled by the CNC from data provided by the International Union of Railways (2010), International Railway Statistics.
(212) Graph 27, which compares each company's operating income and number of locomotives ${ }^{143}$, is an indicator of the productivity per unit of rolling stock. In this case, RENFE-Operadora has the sixth highest productivity per locomotive (4.4), behind CFL (9.4), DB AG (7.7), SNBC/NMBS (6.2), ÖBB and the French company SNCF (4.9).

Graph 27 Relationship between income from freight business and number of locomotives. 2010. ${ }^{144}$

[^54]

Source: Compiled by the CNC from data provided by the International Union of Railways (2010), International Railway Statistics.
(213) Once again, if the effect of public contributions on income is isolated, there is scarcely any change to the results obtained:

Graph 28. Relationship between income (net of public contributions) and number of locomotives. 2010.


Source: Compiled by the CNC from data provided by the International Union of Railways (2010), International Railway Statistics.
(214) Lastly, similar ratios have been calculated for each company's number of wagons, and this time there have been taken into account only those used for freight transport. The relationship between the tkm figures and wagons can be seen in
(215) Graph 29. A higher ratio indicates that each wagon carries a larger quantity of cargo, which could imply lower average costs for the company. The Hungarian company achieves most tkm per wagon (its ratio is 7.5). RENFE-Operadora brings that ratio down to 0.6 and is behind the German company DB AG (1.0), the Italian FS (0.7) and the French company SNCF (0.9), amongst others.

Graph 29. Txkm/freight wagons. 2010


Source: Compiled by the CNC from data provided by the International Union of Railways (2010), International Railway Statistics.
(216) Analysing the figures on the basis of the income specifically from freight for each freight wagon gives a measurement of average productivity per freight wagon, which is a more representative indicator of rail freight activity. According to this indicator RENFE-Operadora is amongst the least productive operators, as can be seen in the following graph, in which only four companies show worse results than RENFEOperadora:

Graph 30. Freight income/freight wagons. 2010.


Source: Compiled by the CNC from data provided by the International Union of Railways (2010), International Railway Statistics.
(217) If public contributions specifically for freight are deducted from freight income, there are hardly any changes. RENFE-Operadora remains amongst the least productive operators.

Graph 31. Freight income/freight wagons. 2010.


Source: Compiled by the CNC from data provided by the International Union of Railways (2010), International Railway Statistics.

## IV. FACTORS LIMITING THE LEVEL OF COMPETITION IN THE SPANISH RAIL SECTOR

(218) Various factors are analysed that affect the level of effective competition in rail freight transport. Those factors may impede access to the market, make entry to the sector less attractive to potential competitors, or reduce the established operators' ability to expand, thereby maintaining the incumbent's position in the market, and reduce competitive pressure. The factors are classified under four headings: factors relating to infrastructure, factors relating to infrastructure administration and management, factors relating to the regulation of access to and pursuit of the activity and the exclusive advantages of RENFE-Operadora.

## IV.1. Factors relating to infrastructure

(219) The Spanish rail system has characteristics which differentiate it from the European system, such as gauges, train length and the lack of regulatory harmonisation. Those factors reduce the size of the market and contribute to the small proportion of rail in freight transport in Spain. Potential competitors find entry and investment less attractive, which limits competitive pressure in the market, efficiency and possible innovation.

## IV.1.1. International isolation

(220) A first group of barriers to entry for new companies and to the development of rail derives from rail's unattractiveness for international transport, as a result of interconnection difficulties with the bordering countries, France and Portugal.
(221) The Intermodal Land and Maritime Transport Observatory ${ }^{145}$ has found that the volume of freight crossing the French border annually is 214 million $t$, of which only 3.9 million $t(1.8 \%)$ are carried by rail. The situation relating to Portugal is similar: of 30 million t crossing to and from Portugal, only 0.7 million $\mathrm{t}(2.4 \%)$ are by rail.
(222) International isolation reduces the incentives for new companies to enter the market because it reduces the size of it and therefore, there are fewer possibilities to achieve economies of scale and fewer business expectations. Furthermore, it has a particularly deterrent effect on entry into the market by major international logistics operators and strong operators in other EU markets. Those potential entrants could represent a beneficial source of competitive pressure in the Spanish market.
(223) Practically all the companies consulted agree that international isolation is one of the factors which has the greatest adverse impact on the competitiveness of rail freight transport and deters the entry of new actors into the market. Public bodies and institutions likewise, in particular the Ministry of Development ${ }^{146}$, the $\mathrm{CRF}^{147}$ and the Consultative Committee on Privatisations ${ }^{148}$, express their concern at those factors.

[^55](224) The following technical factors relating to the Spanish infrastructure contribute to international isolation.
(225) First, Spain has three different track gauges: a) the UIC gauge ( 1435 mm ), on the more modern - high speed lines, which is the same as the European gauge, b) the "Iberian gauge" ( 1668 mm ), present on the Spanish conventional network, and on which most rail freight is carried c) the metric gauge ( 1000 mm ), which is a residual gauge and its concentrated, essentially, in northern Spain. Freight trains, furthermore, do not currently run on UIC gauge tracks ${ }^{149}$.
(226) However, the situation is the opposite in Central Europe, where the UIC gauge is clearly predominant, as it is in the four main European economies.
(227) The different gauge in Spain affects the ability of Spanish companies, both suppliers and users of freight transport services, to become more international, as it implies greater economic costs and costs in time compared with their Community competitors.
(228) In addition to the track gauge, there are other factors indicated above which contribute to the greater international isolation of Spain's rail freight transport, such as different electrification, signalling, rail regulations and the lack of regulatory harmonisation.

## IV.1.2. Slow freight movement on the rail infrastructure

(229) The SWOT analysis ${ }^{150}$ in the Strategic Plan to Stimulate Rail Freight Transport in Spain included slow speed as one of the main weaknesses in rail freight transport, highlighted by actors in the sector. The average speed of freight trains running on the network managed by ADIF barely reaches $56 \mathrm{~km} / \mathrm{hour}^{151}$. The slowness of rail freight journeys makes rail transport less profitable than road transport and national maritime transport (cabotage). This reduces the size of the market and, in consequence, the incentives for operators to enter the market because there are fewer economies of scale and business opportunities.
(230) The reasons why freight journeys are slow on the Spanish rail networks lie in factors already mentioned, such as the existence of excessively steep gradients, and in other factors addressed in detail below, such as the absolute priority given to passenger transport over freight. This means that freight trains spend lengthy and costly amounts of time waiting in sidings, and hinders management at the rail terminals, meaning at times that trains have to be halted for several hours.

## IV.1.3. Smaller average size of trains than in the main competitor countries

[^56](231) The operators consulted highlighted that one of the main problems in developing rail in Spain is that tracks, sidings and terminals are unsuited to trains of lengths similar to the European average.
(232) In fact, five of the seven operators engaged in the market consider that investments should be made in order to adapt infrastructure to trains of 750 m . Furthermore, all the rail companies consider this factor to be an obstacle to pursuit of international freight transport. The attention of the Ministry of Development was drawn to that problem in the SWOT analysis contained in the 2010 PEITFM where it refers to the high costs of transporting freight by rail resulting from the physical limitations on trains, including the fact that trains are short.
(233) The shorter length of Spanish trains entails significant costs for rail operators. Many costs are fixed and do not depend appreciably on the size of the train. This means that average costs fall as the number of wagons increases, as is the case with energy costs, the payment of charges, rolling stock maintenance, the driver's remuneration, etc. In other words, a longer train will enable the unit cost per tonne carried to be reduced.
(234) In addition, the fact that trains in Spain are smaller compared to those in other countries of central Europe generates high additional costs in international freight transport. Cargoes have to be transferred to suitable length trains at international crossings between France and Spain: since the infrastructure in France is prepared to longer trains (up to 750 m ) than the Spanish infrastructure (an average of 322 m ), when a French train reaches the Spanish border the freight carried has to be relocated in two trains. On the Spain-France journey the operation would be in reverse. In so far as Spain is peripheral, this makes rail appreciably more expensive than road, where road is an option, and this makes Spanish exports as a whole less competitive in view of the greater advantage offered by rail over medium-medium/long distances.
(235) The fact that Spanish trains are shorter is due to the unsuitability of rail infrastructure. Spanish rail infrastructure currently has sidings and facilities which are not capable of stabling trains longer than 600 m . In general, the maximum length of trains in Spain is $450 \mathrm{~m}, 40 \%$ less than the European standard ${ }^{152}$. The average length of trains running on the RFIG is therefore 322 m , far below the 750 m in the EU and the 2 km trains which run in the United States.

## IV.1.4. Underdeveloped intermodality

(236) Another important obstacle highlighted by the operators is the underdevelopment of intermodality, both between rail and road and between rail and maritime transport. Virtually all the companies which carry on rail freight transport activity in Spain have told the CNC that access to rail at the ports is inadequate and have described management of the intermodal terminals in Spain as mediocre or poor. The CRF considers that "the rail mode in Spain has not in recent times satisfied the quantity and quality needs of the logistics chain in order to meet the demands of intermodality" ${ }^{153}$. The CEOE likewise believes that for rail freight transport to function better "intermodality and complementarity must be ensured between the various means of freight transport ${ }^{154}$. Lastly, the Ministry of Development acknowledges that there are

[^57]certain infrastructure elements which have an adverse effect on rail activity, in particular, the connection between the ADIF infrastructures and the ports, platforms and logistics hubs ${ }^{155}$.
(237) The underdevelopment of intermodality deters market entry by the major logistics operators and operators with a significant presence in other means of transport, which could exert effective competitive pressure in the rail sector.
Road-rail intermodality:
(238) According to the Intermodal Land and Maritime Transport Observatory Final Document ${ }^{156}$, in 2009 combined road-rail transport nationally totalled 4.1 million t , representing around a quarter of total freight transported that year on the Spanish rail infrastructure. The Document found, on the basis of data for 2009, that 10.8 million t carried by road nationally and 12.8 million $t$ carried by road internationally could be transferred to rail each year.
(239) The Intermodal Land and Maritime Transport Observatory Final Document (2011), on the basis of consultation with market actors, suggests four reasons why the potential of road-rail intermodality is not exploited. Of those four reasons, three relate directly to the inefficiency of rail transport. According to the Document, the actors consulted indicated the following causes specifically linked to rail:

- "... The ineffectiveness and inefficiency of the public rail operator (RENFE Operadora) reflected in aspects such as its rigid structure (no multiproduct, multiorigin or multi-destination trains) and deficient economic and financial management (high tonne-km costs)."
- "The costs of rail transport are lower in Europe as a result of the greater train capacity (longer trains) and the greater distances travelled. In Spain, neither the line infrastructure nor the nodal infrastructure is prepared to take 750 m trains and there are also problems at the border crossings (difficulties in connecting with Europe)".
- "Despite the infrastructure shortcomings, the market actors believe the main difficulties lie in management, in so far as in earlier years more traffic was moved with the same infrastructure or less."


## Rail-maritime intermodality:

(240) In terms of intermodality between rail and maritime transport, only $3 \%$ of total freight transiting through Spanish ports leaves or enters the port by rail. The Ministry of Development highlights this deficient connection between rail and ports in the 2012 Infrastructure, Transport and Housing Plan (PITVI): "The problems of rail access to and connection with the ports, both with regard to infrastructure and the functional aspects relating to the management of movement and of services at the rail terminals at each port, have resulted in little progress in the complementarity of the two modes".
(241) In other countries, rail transport plays a fundamental role in intermodal transport from the ports to the hinterland and vice versa. In Germany, for example, approximately a

[^58]quarter of the total freight carried by rail goes to or from one of the major German ports ${ }^{157}$.
(242) As the Intermodal Land and Maritime Transport Observatory Final Document (2011) points out, there are ports which, as they are located far from the rail network, have no rail access (Santa Cruz de Tenerife, Las Palmas, the Balearic Islands, Ceuta and Melilla) and others such as Motril. Many Spanish ports with rail access are however not using that mode of land transport to communicate with their hinterland (in 2009). That is the case of Alicante, Castellón, Cádiz, Málaga and Vigo. The volumes carried by rail to/from the port of Gijón stand out here, reflecting the significant dry bulk carried on that mode of transport. Only Barcelona, Bilbao and Valencia have significant container freight carried by rail.
(243) In relation to maritime-rail intermodality, the Intermodal Land and Maritime Transport Observatory Final Document ${ }^{158}$ suggests three groups of factors which explain its underdevelopment: the shortcomings in the infrastructure for port access by rail, management of the port rail terminals (in particular, the fact that service providers are not given access to the port rail terminals) and lack of competition.
(244) As regards the deficient infrastructure for rail access to port terminals, the Final Document refers to insufficient usable track length, which means additional shunting has to be carried out, and the fact that there are no back-up terminals inside the sites which are the competence of the port authority, making it necessary to rely on external terminals and to incur additional rail shunting costs. The PITVI states that "there are still deficits relating to access by rail at ports due to urban mobility and the mobility of heavy vehicles to and from the ports encroaching on each other on the metropolitan networks). In addition to those factors, the market actors consulted by the CNC ${ }^{159}$ state that some ports have no rail access and that other ports, although they do have rail access, do not have electrified track. This means that operators have to have diesel or diesel-electric locomotives, which are more expensive than electric locomotives, or contract with the rail-port terminal manager to perform shunting operations ${ }^{160}$.

## IV.2. Factors relating to infrastructure administration and management and third party access to service provision on infrastructure

(245) The second group of factors contributing to the lower level of competition in rail transport are aspects relating to infrastructure management.

## IV.2. 1 Terminal management

[^59](246) All the rail companies operating in Spain believe that management at ADIF's terminals could be significantly improved. In particular, the operators consider that the fact that the opening dates and timetables of the terminals are not tailored to their needs causes greater waiting times and economic costs for the companies. They also believe that charges are too high and express their dissatisfaction at how additional, complementary and ancillary services are managed.
(247) According to the CRF ${ }^{161}$, "There are bottlenecks at certain terminals and their operating dates and timetables during which intermodal traffic takes place hinders the growth of this type of traffic, bearing in mind also the fact that opening outside the normal dates and times, when feasible, is particularly onerous". It also points out that "management of this network according to a uniform pattern, in which the rule is that it is managed exclusively by ADIF and that services are provided using its own resources, fetters the inevitable adaptation of the terminals to the existing and future needs of rail freight traffic".
(248) The Intermodal Land and Maritime Transport Observatory Final Document ${ }^{162}$ also lists "establishing a basic network of rail logistics facilities operating 24 hours a day, 365 days a year", as one of the principal measures to promote development of the sector.
(249) As analysed in section II. 2 of this report, of the 75 principal logistics facilities on the RFIG, 17 do not open at weekends or on one of the two weekend days, thereby restricting freight traffic or increasing the costs of companies which have to wait for the terminals to open or have to contract for out of hours opening. Furthermore, 14 of those facilities have no night-time service.
(250) Furthermore, the absolute priority given to rail passenger transport relegates freight transport to running at less attractive times with longer waits. Together with the restrictions on opening times described above this means that when those trains arrive at the terminals the services required are usually not available.
(251) That fact particularly affects additional services, which are the exclusive competence of ADIF and cannot, therefore, be provided by any other agent or by the rail companies themselves on the basis of self provision. It also affects complementary and ancillary services, in so far as the self provision of those services is not envisaged at any of the 75 principal terminals and they therefore have to be contracted from ADIF.

## IV.2.2. Additional, complementary and ancillary (ACA) services.

(252) Management of additional, complementary and ancillary (ACA) services is one of the aspects most emphasised by the operators as barriers to the development of rail freight transport. The CRF has also drawn attention to the deficient regulation and insufficient level of development of those services, in a specific report on those services ${ }^{163}$.
(253) The services provided at terminals represent a significant percentage of rail operators' costs and are fundamental in enabling actors in the market to develop their competitive potential.

[^60](254) The specific problems which impede competitiveness in the provision of those services include, first of all, barriers to the entry of operators specialised in providing them, competing with ADIF, and to the development of self provision. All the railway companies which carry freight believe it is desirable that railway companies could be able to share self provision or provide services amongst themselves, an option not permitted by the legislation.
(255) The main problem in relation to ACA services is their lack of regulatory development and implementation, as provided for in articles 40.3 a) and b) of the LSF. In response to that situation, ADIF has gradually been laying down rules for the provision of those services. It is therefore ADIF itself, without making itself subject to any clear procompetition rules, which decides at which terminals the rail companies can provide ACA services, which grants permits to commence operations at terminals to its competitors in the provision of ACA services, which governs how each of those services can be provided and imposes such conditions on them as it sees fit, and which establishes whether certain specific services are complementary or ancillary ${ }^{164}$.
(256) From a competition perspective, therefore, an anomaly arises in so far as ADIF, the owner of the infrastructure and de facto monopoly holder in the provision of ACA services, is able at its discretion to regulate the entry of competing companies and their activity and whether its customers can provide services to themselves and to decide the substance and even the price of those services.
(257) In terms of regulation, the criteria according to which ADIF has to provide complementary services are still pending. Moreover, there is also a lack of development of the requirements for obtaining the qualifying permit to provide complementary and ancillary services and the circumstances under which ADIF can enter into agreements or contracts with providers of complementary services to give access to accommodation, facilities or resources.
(258) That situation creates legal uncertainty and gives ADIF greater discretion in granting permits, which may be a factor deterring the entry of new managers at terminals. Furthermore, at present ADIF decides the terminals where there can be self provision of services and on what terms. The CRF, in its above referred report, criticises the fact that ADIF has laid down restrictions on:

- The use of traction stock not belonging to ADIF: ADIF, relying on safety criteria, imposes limits on the rail companies using their own traction stock, which in the view of the CRF reduces the incentives to their providing their own services.
- The supply of fuel: this is a complementary service and as such, according to the regulations, can be self provided. However, the CRF alleges that in practice it cannot be self provided at the terminals with a fixed point of supply.
- It makes self provision subject to the rail company contracting to use accommodation: the legislation provides that in order to self provide complementary and ancillary services "the corresponding agreement or contract on the availability of accommodation" must be signed with ADIF". ADIF, however, has established an administrative procedure to which allocation of that accommodation is subject and which impedes entry and, in the opinion of the CRF, has a doubtful basis in law.

[^61](259) The CRF report also notes that the one year term of the agreements formalising self provision is a disincentive to investment by the rail companies. It states that "the self provision of certain services, since it involves a significant amount of investment by the rail companies, calls for a level of certainty and financial stability incompatible with the fact that ADIF establishes an annual term in the agreements required to formalise the self provision".
(260) The vague regulation, the lack of development and implementation and the discretion left to ADIF help explain the virtual absence of providers of complementary and ancillary services competing with ADIF, and the underdeveloped nature of self provision. As indicated in section II of this report, of the over 225 facilities in Spain where there can be self provision, it has been put into practice in only 81 , and these do not include a single principal logistics facility (there are 75 principal logistics stations). Only two rail companies, in addition to RENFE-Operadora, have opted to provide their own services: Comsa and Activa Rail, at [...] and [...] stations respectively. As regards the provision of complementary services by third parties at the principal logistics facilities, provision of those services has scarcely been opened up: at only four terminals have operators other than ADIF commenced providing those services.
(261) In addition, the CRF report points out that the number of complementary and ancillary services was increased by means of the ADIF network statement, with the resulting increase in costs for rail companies. The CRF states that "because, once they are provided by ADIF, the provision of complementary services is mandatory, and because their price is subject to the tariff regime, their structure and content should have a degree of stability so that the rail companies and other operators know with certainty the costs of this mode of transport". Otherwise, the margin of discretion would have repercussions on the rail companies' cost structure. Those changes prejudice proper planning by operators, whose cost forecasts could be undermined by changes in the provision of those services.
(262) The CRF also highlights the lack of certainty in the tariff framework for additional and complementary services. In the view of the CNC the infringement of Royal Decree 100/2010 of 5 February amending the RSF is particularly serious. In its Single Additional Provision, that Royal Decree imposed a duty on the Ministry of Development to regulate the tariffs within one year. That period has expired, and the system of provisional annual tariffs, which is not conducive to the promotion of competition, has been maintained.

## IV.2.3. Capacity allocation

(263) In its judgment of 28 February 2013 (Case C-483/10) the CJEU examined the system for allocating capacity in Spain, and found that there were elements contrary to the spirit of the Community rules. The CNC likewise indicated the regulatory problems in awarding capacity in IPN 30/09.
(264) Allocating capacity is one of the main powers attributed to the infrastructure administrator. The process is governed by allocation criteria contained in article 11 of Order FOM/897/2005. As the CNC already pointed out in IPN 30/09, that rule "permits a considerable degree of discretion by the infrastructure administrator where there is more than one application for the same train path, or network congestion", which reduces legal certainty for new entrants.
(265) Where there is congestion or more than one application for the same train path, that Order in fact establishes an order of priority for allocation which relegates the
economic criterion of efficiency to last place, in favour of other more discretionary principles or principles not based on economic grounds.
(266) Furthermore, as the CNC stated in that report on draft regulations (IPN) "it is curious that, although the above referred principles are necessary, they do not include the principle of competitive tendering, which would provide a sufficient framework to ensure allocation in keeping with the nature of a liberalised market. That is to say, given that rail infrastructure capacity will on many occasions be limited, because competition 'in the market' is impossible, at least competition 'for the market' must be secured".
(267) IPN 30/09 continues, "the criteria currently established in the aforementioned Order 897/2005, if valid, are liable to favour the dominant operator, RENFE-Operadora, which starts from a privileged position in so far as it is already established throughout the network and therefore benefits from the efficiencies derived from its market strength."
(268) It is striking in that regard that "whether the train slots requested were allocated and effectively used by the applicant in earlier working timetables" was included as a fourth criterion in the order of priority. This means that, in the event of congestion and where there is more than one application for a train path, that path will be granted to the operator which has previously used that line, thereby clearly favouring RENFEOperadora. In so far as RENFE-Operadora is the incumbent operator and the only entity established throughout national territory, in the event of a conflict in allocating capacity, the public entity would always start with an advantage, thereby reducing the possibilities for new entrants to enter or expand.
(269) The CJEU judgment of 28 February 2013 reiterates that assessment by the CNC of IPN 30/09. The European court found that the discretion given by the Spanish regulations to the Minister for Development to allocate capacity in the event of rail congestion "constitutes a source of legal uncertainty for operators". The judgment also criticises the criteria in the Spanish capacity allocation regulations because they "[lead], where there is more than one application for the same train path or the network is congested, to advantages being maintained for the incumbent users and access to the most attractive train slots being denied to new entrants". The CJEU found that there were other options available in order to achieve the efficiency objectives sought by the Spanish regulating body, and that such discrimination between rail companies was unnecessary.

## IV.2.4. Management of passenger and freight traffic

(270) The majority of rail companies present in Spain highlight the problems of congestion on the local railways of the main cities, where passenger transport has absolute priority over freight transport.
(271) The network statement determines the existence of specialised lines for passenger traffic, which have priority under article 11 of Order FOM/897/2005. That order provides that in the event of congestion, the second priority criterion for allocating train paths is whether there is specialised infrastructure.
(272) On those lines with priority for passengers, operators have drawn attention to the difficulties in running freight trains. Near major cities (Madrid, Barcelona, Valencia and Bilbao) practically all tracks are for local trains and this, in general, means that freight trains have no priority access, giving rise to lengthy waits for those trains.
(273) That circumstance gives rise, in turn, to a lower average running speed for trains because they have to wait in sidings. Those slower journeys mean, on occasion, that they arrive at rail terminals outside the working timetable, giving rise to additional waiting costs for operators, or costs resulting from the need to contract to use terminals and associated personnel out of hours.
(274) Those factors have an adverse effect on the ability of rail freight transport to increase its presence in the logistics chain in Spain ${ }^{165}$.

## IV.3. Factors relating to the regulation of access to and pursuit of rail activity

## IV.3.1. Licences

(275) The current rail regulations establish requirements for participating in the market which, in practice, increase the need for financing capacity, thereby operating as a barrier to entry to the market, and delay the entry of new operators or the expansion of existing operators. Those factors act as disincentive to the competitive strategies of new entrants. One operator went so far as to say that the requirements relating to licences "represent an absolute barrier to entry into the sector" and regards them as "completely disproportionate".
(276) In relation to licences, operators have highlighted the cost and the processing time as the main problems. They also point out that a number of the requirements can be excessive, such as the $\mathbf{5}$-year action plan, which has to include "an organisational chart of the company's executive and technical personnel, expressly indicating which people have responsibility for rail safety" (article 68 RSF). Easily more than a year can elapse between an operator applying for a licence (and having to submit that plan) and the beginning of the activity.
(277) As regards the time it takes to process licences, the LSF lays down a maximum of "three months from its submission or from the time at which the required documentation is completed", but operators have indicated that, in practice, that period is extended to between five and eight months before the licence is granted.

## IV.3.2. Safety certificate

(278) As well as a rail company licence, entities wishing to operate in Spain must have a safety certificate issued by the Ministry of Development. Almost half the rail companies believe that the requirements for obtaining safety certificates are disproportionate in terms of time, lack of transparency in the process and the excessive cost of extending safety certificates.
(279) From a competition perspective, the current lack of flexibility of the safety certificate could be a disproportionate requirement deterring the entry of new operators.
(280) In Spain, safety certificates cover only the lines and rolling stock it is intended to operate at a given time, so that that each time a company wishes to provide a service on a new stretch or to use new rolling stock it has to apply for an extension to the certificate (articles 105 and 106 RSF), with the resulting cost in time and money.

[^62](281) The time limit for determining those applications is four months, and no reply is deemed to be a refusal. Issuing, extending, renewing or revising the safety certificate involves costs of the same amount as for the licence. In other European countries, such as Germany, expenditure on those processes is minimal. Example, the safety certificate is not restricted to particular lines, unless the operator in question so requests ${ }^{166}$. Furthermore, in the case of a certificate being extended, the Federal Rail Authority would pass on certain management costs to the operator, limited to 100 euros an hour.
(282) One of the requirements most criticised by operators and apparently most restrictive is the need to provide traction in order to be qualified as a rail company. The definition of a rail company in article 43 of the LSF involves two strict requirements in order to qualify as such: having obtained a licence and the need to provide traction. Providing traction is verified at the time the safety certificate is applied for ${ }^{167}$.
(283) Accordingly, before the rail operator knows what lines it will be able to operate and well before it applies to ADIF to be allocated capacity, it has to have at least one locomotive purchase agreement showing that traction ${ }^{168}$. Purchasing each locomotive involves expenditure of two or three million euros, which has to be incurred before commencing any commercial activity. In the case of Spain, there is barely any secondhand market for the purchase of locomotives, the leasing market is very restricted and imported second-hand or leased locomotives would not have the Iberian gauge. The limited economic options make high expenditure practically inevitable.
(284) The CNC first drew attention to that situation in IPN 30/09, in which it found that it could be "a possible barrier to entry, given the high cost involved in having rolling stock before commencing the activity, in view of the uncertainty regarding the infrastructure capacity the company will have available and therefore as to what services it will be able to provide, and as to whether or not it will be able to write off its investment. Where those assets are not owned directly, opportunities to lease or subcontract them are limited by the fact that up to now there has been a monopoly in the Spanish market, and by the difficulties in moving those assets, which give rise to a very tight market in rolling stock with the effect that, although it is not a requirement to own rolling stock directly, it is difficult to ensure that it is available".

## IV.3.3. Approval of rolling stock

(285) For rolling stock to run on the rail infrastructure it must be approved in accordance with the criteria analysed in section II.1.2. Either the rail companies or the manufacturers themselves can carry out that procedure.
(286) There is a perception amongst operators in the sector that the approval procedure is too costly, both economically and in terms of time ${ }^{169}$, and that the latest changes in the

[^63]regulations ${ }^{170}$ have made it administratively more complex, by increasing the number of bodies to which it is necessary to apply for the various authorisations in the approval process: a certification body, the Ministry of Development and ADIF, which can disproportionately extend the time before the approval of rolling stock ${ }^{171}$. One manufacturer has criticised the increase in the number of parties involved in the process and points out that "the fact that there is no obligation on the bodies involved or an undertaking by them to reply within a reasonable fixed time contributes to making the approval process slow".
(287) In addition, lengthy approval times delay the entry into the market of more efficient and innovative models of rolling stock adapted to customers' specific needs, which are amongst the main advantages new entrants have over the traditional operator.
(288) Furthermore, approval acquires greater significance in Spain. Because the supply of second-hand or leased rolling stock is scarce, operators have few economically feasible alternatives whereby they can avoid or reduce those approval times and the attendant costs.
(289) The limitations on the principle of mutual recognition of rolling stock authorisations, promoted by the EU, must therefore be taken into account. Royal Decree 1434/2010, at the same time as acknowledging that "an authorisation granted by another Member State of the European Union will be valid in Spain", but it subordinates that validity to "the provisions relating to additional authorisations", and those additional authorisations depend "on whether or not the vehicle complies with all the TSIs applicable to it". Accordingly, the technical peculiarities of the Spanish infrastructure require modifications to rolling stock and, therefore, a new authorisation is required for that stock. Mutual recognition is largely diluted, and operators do not have the flexibility which seems to contain the above-mentioned provision.

## IV.3.4. Driving personnel training and permits.

(290) Many operators have highlighted access to driving personnel as one of the principal barriers to entering the market. The starting point must be the fact that training drivers is costly and the training periods are long, making investment in training a significant cost for rail companies.
(291) Moreover, the regulations do not encourage mobility of drivers between rail companies. On the one hand, safety certificates ${ }^{172}$ are subject to an employment relationship with the rail company, and therefore cease to be valid once that relationship ends ${ }^{173}$; a rail company which engages a train driver from another company must therefore obtain a new permit for the driver, even though it assigns the driver to the same section of the

[^64]network ${ }^{174}$. Furthermore, when driving personnel are transferred between rail companies, the company which engages a driver must compensate the other for training costs if the driver had been with that company for less than two years ${ }^{175}$.
(292) Traditionally, there has been a lack of alternative training centres to those of RENFEOperadora, giving rise to problems for new entrants in accessing drivers. However, in recent years, it would appear that Ministry of Development-approved training undertakings have come into existence, which are either independent or belong to the rail companies, and have alleviated the problem. For driving personnel, it is noted that in addition to the centres belonging to RENFE-Operadora and ADIF, other centres have come into being which do not belong to rail companies, such as Cetren, Cefoim and Ceff and, as well as these, schools have been created belonging to Acciona and Comsa, which are engaged in rail transport.

Table 33. Rail personnel training centres. 2012.

|  |  |  |  |  |  |  |  |  | $\widetilde{0}$ 0 0 0 0 0 0 0 0 0 0 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RENFE- |  |  |  |  | X | X | X | X | X | X |
| ADIF | X | X | X | X | X | X | X | X | X |  |
| CETREN | X | X | X | X | X | X | X | X | X | X |
| Cefoim |  |  |  |  |  |  |  |  | X |  |
| CEFF | X | X | X | X | X | X | X | X | X |  |
| Plasser Española |  |  |  |  |  |  |  |  |  | X |
| Forma Rail |  |  | X | X |  |  |  |  |  |  |
| Acciona |  |  |  |  |  |  |  |  | X |  |
| Forinem |  |  | X | X | X |  |  |  |  | X |
| Comsa |  |  |  |  |  |  |  |  | X |  |

Source: Compiled by the CNC from data provided by the Ministry of Development.
(293) Although the initial stumbling block relating to the lack of alternative training schools would seem to have been removed, the existing regulations for driver training continue to raise questions which could represent a barrier to entry for new operators.
(294) Drivers are required to have a licence ${ }^{176}$, accrediting their general expertise, and a permit, which is specific for each section of line and for each type of rolling stock,

[^65]and this, in practice, seems to be one of the most significant obstacles faced by new entrants. Most new entrants engaged in rail freight transport referred to difficulties in accessing practical training on specific sections in so far as this depends to a large extent on RENFE-Operadora's willingness and on the terms that RENFE-Operadora imposes.
(295) Obtaining the specific permit for a driver for each section and for each type of rolling stock means that practical training has to be carried out on that line before grant of the permit. If a company wants to obtain a permit for a train driver for a line on which it does not have an accredited driver, it has to call upon another company to allow one of its accredited drivers to accompany the trainee driver ${ }^{177}$. That requirement means, in practice, that RENFE-Operadora is the key company in enabling its competitors' workers to obtain that permit, since it is the only company which has drivers accredited for practically all the RFIG lines. Where an application comes from a company which is a competitor or potential competitor of RENFE-Operadora, there is a risk that RENFE-Operadora could make it difficult for rival companies to obtain the service, either by setting a disproportionately high price for the service or by delaying its provision.

## IV.3.5. Charges

(296) Using infrastructure entails paying charges, which are managed by the relevant infrastructure administrator. The current regulations distinguish between two types of payment - the charge for using rail infrastructure and the charge for using stations and other rail facilities, which are in turn subdivided into several charges ${ }^{178}$.
(297) Many operators consulted have described the existing charging system as a major barrier to entry. The Association of Rail Companies (Asociación de Empresas Ferroviarias or AEF) has stated in relation to the CRF proceedings concerning rail charges that "the structure of the charges for access, reservation of capacity and traffic must be reviewed so that rail services can be provided on objective, transparent and non-discriminatory terms." Another rail company has highlighted the discrimination caused by the access charge in so far as it requires payment at the beginning of the year, irrespective of when the company begins its activity. The CRF has also made a report, highlighting the fact that charges are not tailored to effectiveness, sustainability and efficiency principles, amongst others ${ }^{179}$. The CNC collaborated in preparing that report, sending its observations to the CRF.
(298) From a competition perspective, the main problems relating to charges are as follows.
(299) First, article 73.3 of the LSF states that charges will be set in accordance with a number of general principles (economic viability of infrastructure, efficient operation, market situation, non-discrimination between operators, etc.), and that it is possible to take into account (article 73.5 LSF) factors reflecting the level of congestion of the infrastructure, the fostering of new rail transport services and the need to promote the

[^66]use of under-utilised lines, whilst guaranteeing optimum competition between railway companies. However, as the CRF states, charges are not set in accordance with a transparent objective process which incentivises efficient use of rail infrastructure, and it is therefore not possible to verify whether those principles are in fact upheld.
(300) In the third conclusion of its report, the CRF thus asserted that "the absence of a provision implementing the principles under article 73 of the LSF has led to charges which fail to take into account the particular circumstances of rail activity and foster neither the competitiveness of rail companies nor effective operation of infrastructure". The EU Court of Justice (CJEU) has found that article 73.5 of the LSF does not comply with the requirements of the Community rules in so far as "the mere possibility of introducing a performance scheme is not sufficient for the purpose of implementing article 11 of Directive 2001/14 ${ }^{180}$ [...] article 11 requires Member States actually to set up a performance scheme as part of the charging scheme" ${ }^{181}$.
(301) Secondly, the current charging system is enormously complex, and this can act as a barrier to the entry of new operators. There are currently as many as nine different rail charges, with the associated economic and administrative burdens, added to which is the complexity of estimating the cost of them all. This represents an added difficulty which impacts on new entrants more than on RENFE-Operadora.
(302) Thirdly, as the CRF criticises in its report, the specific design of the access charge also involves a relatively heavier burden on new entrants than on RENFE-Operadora.
(303) On the one hand, that charge is structured (see Table 34) in such a way that the average cost of the access traffic-based charge (in euros per kilometre) is degressive, which means that smaller operators pay relatively more under this charge than the incumbent. Furthermore, there are "peaks and troughs" in the average charge, since the amount increases in steps with each change of band as the number of kilometres increases. Because there are fixed amounts set specifically for each band, increases in traffic giving rise to changes in band cause spikes in the average cost to the operator (see Graph 32).

[^67]Table 34. Structure of the access charge

| Level | Trafific volume (million <br> train-km Year) | Euros/year |
| :---: | :---: | :---: |
| N1.a | $\leq 0.2$ | 13120.36 |
| N1.b | $>0.2$ and $\leq 0.5$ | 32800.91 |
| N1.c | $>0.5$ and $\leq 1$ | 65601.81 |
| N2.a | $>1$ and $\leq 2.5$ | 115028.32 |
| N2.b | $>2.5$ and $\leq 5$ | 164004.55 |
| N2.c | $>5$ and $\leq 10$ | 360810.01 |
| N3.a | $>10$ and $\leq 15$ | 754420.93 |
| N3.b | $>15$ | 1541642.76 |

Source: Order FOM/2336/2012

Graph 32. Amount of access charge (top section) and average access charge (bottom section) based on traffic.



Source: 2010 Rail Observatory report and compiled by the CNC.
(304) Moreover, the full annual access charge is paid irrespective of the month in which the activity commences. That single payment, which cannot be pro-rated, is a disincentive to starting the activity and can deter new companies since there is no flexible criterion based on market penetration, nor which takes into account the number of days' actual activity.
(305) Those two factors mean that, although RENFE-Operadora has a higher level of activity than the other rail companies, those companies jointly contribute more to the total access charge received by ADIF (Graph 33).

Graph 33 Charge for use of railway lines. 2011.

## [NON-PUBLIC DATA]

Source: Compiled by the CNC using data provided by the rail companies.
(306) The capacity reservation charge applies to all companies and to all capacity applied for, not only unused capacity. In the CRF's view that means that the paramount purpose of the charge is not to foster efficient use of the rail infrastructure. The current regulations contain no rules to discourage inefficient use of the capacity allocated or allow an opportunity for early cancellation, with or without a penalty. The CJEU, in its judgment of 28 February 2013, in fact held that "with regard to the reservation charge provided for under Spanish legislation, the possibility available to the infrastructure manager of levying such a charge for rail capacity that is requested but not used, as provided for in article 12 of Directive 2001/14, has a more limited purpose than that of providing incentives to reduce disruption and improve performance of the network, that is to say, to use capacity efficiently".
(307) From a competition perspective, the fact that the reservation of unused capacity is not sufficiently penalised creates a risk of the incumbent company strategically reserving train paths over and above its actual requirements, in order to prevent or impede the entry or activity of new operators on certain sections. That behaviour has
recently been found on the part of the French incumbent ${ }^{182}$. The CNC in fact believes that one of the problems in the charging structure is that it does not include market mechanisms to resolve infrastructure congestion and provide incentives for its efficient use.

## IV.4. Specific advantages of RENFE-Operadora

(308) Up to this point, we have analysed regulatory and structural elements of the market which affect or could affect operators' incentives, ability to enter the market and activity. Here, attention is drawn to the persistence, eight years after the liberalisation of rail freight transport, of a series of advantages in restraint of competition enjoyed by RENFE-Operadora, the former monopoly holder and now a public enterprise attached, like ADIF, to the Ministry of Development.
(309) Before undertaking a more in-depth analysis, it is worth highlighting the economic advantages derived from its greater knowledge and experience of the market and, logically, its lower average operating cost resulting from economies of scale and network economies resulting from its presence throughout national territory. RENFEOperadora's market power is embodied in a share of [80-90]\% in terms of tonnes carried. Moreover, although there are currently 16 companies with rail company licences and 11 with safety certificates, only six pursue rail activity on the RFIG. Furthermore, one of the licence-holding companies is $20 \%$ owned by RENFEOperadora.
(310) RENFE-Operadora's position in the market is reinforced by being the only company with a presence at national level, in so far as the activity of all the other participating companies is confined to specific regions and particular lines, and they have not reached the point of creating a nationwide network.

## IV.4.1 "Grandfather" clauses

(311) "Grandfather" clauses are provisions which, with the purported objective of ensuring continuity in rail freight transport, exempt RENFE-Operadora from a series of procedures which the other rail companies do have to follow and entitle it to preferential use of infrastructure.
(312) The LSE retained RENFE-Operadora's rights to use capacity which RENFE had been enjoying ${ }^{183}$. Furthermore, in the event of infrastructure congestion, the regulations give RENFE-Operadora an advantage over new entrants in the allocation of capacity. One of the criteria for awarding capacity is "whether the train paths requested were allocated and effectively used by the applicant in earlier working timetables", which in practice gives RENFE-Operadora a unique advantage over its potential competitors. In its judgment of 28 February 2013 (Case C-483/10) the CJEU held that this capacity allocation criterion was contrary to Community law.

[^68](313) The CNC drew attention to that situation in the CNC Position Report on Royal Decree Law 22/2012 of 20 July, adopting measures concerning infrastructure and rail services. In that Position Report, the CNC stated that "RENFE-Operadora enjoys a 'grandfather' clause, under which, in a liberalised environment, that operator will retain the right to exploit the network capacity it was effectively using at the time such liberalisation takes place. Similarly, there are still regulatory provisions which will continue to benefit RENFE-Operadora (or its successor) on a discriminatory basis, in terms of accessing, in particular, effective use of the train path in particular slots".
(314) Together with the consolidation of those acquired rights, there is the greater facility derived from Additional Provision Six of the LSF, which allowed the automatic grant of permits to all RENFE-Operadora's rail personnel on approval of the Act, and approval of the company's rolling stock, giving two years in which to complete those procedures. Those adaptation periods, although intended to prevent interruption in service provision, have increased RENFE-Operadora's inalienable position in national territory, and have reinforced its significant power in the tied rolling stock market and in driver training.

## IV.4.2 Availability of rolling stock

(315) Purchasing rolling stock is a significant cost, which can represent a barrier to entry for new operators.
(316) There are comparatively few alternatives in Spain to the purchase of rolling stock. First, there are few options as regards accessing rolling stock abroad, due to the peculiarities of the Spanish infrastructure. Those restrictions are reflected in the fact that rolling stock leasing has hardly developed in national terms, particularly in the case of the locomotive market. Apart from the problems derived from international isolation, RENFE-Operadora has spare locomotives and wagons in its fleet which could put to profitable use in a pro-competitive manner by making them available in Spain. Rather than taking that option, it has been seen in previous years that RENFE-Operadora has sold part of its fleet to third countries which have Iberian gauge tracks and where there are no potentially competing companies ${ }^{184}$. On the other hand, it has not sold any freight transport locomotives to rail companies operating or which could operate in Spain.
(317) RENFE-Operadora has the largest rolling stock fleet of all companies in Spain. In addition to the existing approved vehicles inherited from the former Renfe (and those from FEVE, from 1.01.2013) are the acquisitions made since 2006, amounting to [...] wagons and [...] locomotives.
(318) As various rail companies have stated to the CNC, RENFE-Operadora has spare capacity of already approved rolling stock (particularly locomotives), whereas the new operators encounter a dearth of supply of rolling stock in Spain and the difficulties described above in obtaining approval for new stock. Most of the rail companies have described the difficulty in accessing rolling stock as one of the main problems in accessing and operating in the market.
(319) The rail companies have indicated that RENFE-Operadora currently has a significant portion of its rolling stock idle, but does not make it available to new entrants either by

[^69]sale or leasing ${ }^{185}$. The analysis in this report suggests that RENFE-Operadora may indeed have surplus rolling stock:

- First, RENFE-Operadora has a higher proportion of locomotives and wagons capable of transporting freight on the RFIG than its market share: RENFEOperadora has [80-90]\% of the locomotives capable of running on the RFIG and [90-100]\% of wagons, whereas its market share is around [80-90]\%.
- Secondly, RENFE-Operadora's average utilisation of locomotives and wagons is far below that of its competitors: accordingly, as indicated in section II.2, RENFE-Operadora carries [...] t per locomotive and [...] t per wagon, whereas the new entrants carry on average [...] t per locomotive and [...] t per wagon, representing an average of $[30-40] \%$ and $[440-450] \%$ respectively more than RENFE-Operadora.
- Thirdly, in a comparison of the rail incumbents in the most comparable countries (section III.4), RENFE-Operadora is one of the companies with most freight wagons in relation to its income from freight.
(320) Royal Decree Law 22/2012 of 20 July, adopting measures concerning infrastructure and rail services, provides for the creation of four State commercial companies, wholly owned by RENFE-Operadora, one of which would be a company engaged in "leasing operations and other operations associated with rolling stock assets and, on an ancillary basis, the sale and other forms of provision of rolling stock and facilities."
(321) Taking RENFE-Operadora's current restructuring into account, the danger with this structure is that this leasing unit, similar to the British ROSCOs ${ }^{186}$, because it is linked to the parent company RENFE-Operadora, might not act independently and may have an incentive to impede access to rolling stock by new operators, either by means of excessive prices or long delays in accessing rolling stock. The CNC has therefore emphasised in the Position Report on that Royal Decree Law that "there must be a guarantee that the manufacturing and maintenance units and rolling stock maintenance units have absolute functional, legal and accounting independence, in order genuinely to liberalise the sector. Given the characteristics of Spanish infrastructure, the limited supply of rolling stock may be a barrier to entry for new operators in the sector or for established operators wishing to expand the services they supply".


## IV.4.3. Rolling stock maintenance and repair services

(322) Access to rolling stock maintenance and repair is essential for companies which carry freight by rail. It is an activity in which there are practically no genuine alternatives to Integria, RENFE-Operadora's subsidiary, in so far as Integria is the only company which has a nationwide network of workshops and, also, because it has links with all the manufacturers of rail stock in Spain ${ }^{187}$. That situation entails the risk that RENFEOperadora could actually or constructively refuse to supply its rivals, by delaying or increasing the cost of maintenance and repair of its competitors' rolling stock.

[^70](323) Most of the companies operating in the rail freight market draw attention to RENFEOperadora's behaviour. One operator stated as follows: "the important thing about rolling stock maintenance is that RENFE-Operadora, through its company RENFEIntegria, has a quasi monopoly because the vast majority of approved workshops are within its orbit, and it owns or partially owns the companies approved to carry out maintenance [...] The terms laid down in order to work at their premises are therefore abusively costly. Added to this is a total lack of flexibility and availability in relation to scheduling".
(324) The CNC has also taken a position on those possible adverse effects on competition in this matter in the Position Report on Royal Decree Law 22/2012 of 20 July. In relation to the new structure proposed for RENFE-Operadora in the form of four companies all wholly owned by RENFE-Operadora, the CNC believes that this could prove insufficient and proposes to ensure that "the rolling stock manufacturing and maintenance and leasing units have absolute functional, legal and accounting independence, in order genuinely to liberalise the sector".
(325) From a competition perspective, therefore, two kinds of issue arise in this activity.
(326) First, the position which RENFE-Operadora enjoys with its network of repair and maintenance workshops, Integria, gives it a significant and probably unique advantage in the associated rail freight services market, in so far as the investment which would be necessary in order to provide an alternative similar network would be significant and would constitute stranded costs.
(327) Secondly, RENFE-Operadora's position is strengthened by its links with the principal rolling stock manufacturers through the joint venture it has set up with each rolling stock manufacturer, as analysed in section II.2. Many of those companies operate at Integria's workshops, which belong to RENFE-Operadora, giving the public undertaking greater control over those activities. That circumstance also contributes to weakening competition between the manufacturers in rail stock maintenance and repair activities, in so far as the common link, reinforced by the fact that they depend on RENFE-Operadora's infrastructure, reduces their ability and incentive to compete with each other and with the public undertaking. This is borne out by the fact that none of the joint undertakings has or ever had rolling stock built by any of the competitor manufacturers.

## IV.4.4. Business structure and public financing

(328) Several operators have stated that RENFE-Operadora's financing, together with the fact that it operates in liberalised markets, in reserved markets under monopoly arrangements and others in which it has a de facto monopoly, gives it a unique advantage over the other operators.
(329) RENFE-Operadora is in fact not only active in rail freight transport, but carries on activities under monopoly arrangements in markets reserved to it by statute, in particular rail passenger transport in Spain. That situation poses a risk to competition in so far as cross subsidies may emerge between reserved and non-reserved activities within the same company, with the effect that RENFE-Operadora could offset any losses in the competitive markets from its activity in markets where there is no competition.
(330) Strict separation of accounts between the different areas of activity could reduce the risk of cross subsidies referred to above, but it appears not to do so in the case of RENFE-Operadora. Although since 2006 RENFE-Operadora has been preparing
separate profit and loss accounts and balance sheets for each of its various areas of activity - one of which is freight and logistics services -, because this area of activity is not legally ${ }^{188}$ and functionally separate, the possibility of cross subsidies has not been removed.
(331) In particular, one must bear in mind that, despite the legal separation of the various areas of activity which took place in 2011, there are still transactions of very significant amounts between the various companies comprising the RENFE-Operadora group. Cross subsidies can occur through transfer pricing. The State Inspectorate (Intervención General de la Administración del Estado or IGAE), in its Audit Report on RENFEOperadora's 2011 accounts, in fact stated: "the entity performs transactions for significant amounts with associated parties. During preparation of our report we have not had access to the necessary supporting documentation which would have enabled us to assess whether the transfer prices applied to transactions with investee companies, essentially, Irion Renfe Mercancías, S.A., Multi Renfe Mercancías, S.A. and Contren Renfe Mercancías, S.A., are in line with market prices."
(332) In addition to this theoretical possibility, two facts suggest that RENFE-Operadora has been able to enjoy financial advantages over the other operators.
(333) First, as can be seen in Table 35, RENFE-Operadora's Freight and Logistics division ${ }^{189}$ has been operating at a loss in recent years. The losses rocketed in 2011, reaching almost [...] million euros.

Table 35. Results of RENFE-Operadora's Freight and Logistics division. 2006-2011.

| Year | Profit or loss (thousand euros) |
| :---: | :---: |
| 2006 | $[\ldots]$ |
| 2007 | $[\ldots]$ |
| 2008 | $[\ldots]$ |
| 2009 | $[\ldots]$ |
| 2010 | $[\ldots]$ |
| 2011 | $[\ldots]$ |

Source: Compiled by the CNC from data provided by RENFE-Operadora.
(334) Secondly, RENFE-Operadora has been receiving funding from the General State Administration (Administración General del Estado or AGE), and it is not possible to

[^71]verify whether that funding has been applied, directly or indirectly, to supporting freight activity.
(335) Over the 2006-2010 period the framework for the financial relations between the undertaking and AGE was the Programme-Agreement ${ }^{190}$, which set the mutual objectives, obligations and undertakings of both parties. Under that ProgrammeAgreement, RENFE-Operadora received contributions from the General State Budgets for each financial year, within which current transfers would be applied, on the one hand, to offsetting the costs incurred by RENFE-Operadora in providing local and medium distance services which were greater than the income from their operation ${ }^{191}$ and, on the other hand, to financing the general losses of all RENFE-Operadora's other activities ${ }^{192}$ and losses arising from the redundancy procedure ${ }^{193}$.
(336) In practice, that model functioned until 2009, but in 2010 current transfers were applied exclusively to cover the costs of the redundancy procedure and in 2011 RENFEOperadora only received aid in respect of its public passenger transport obligations. In 2006 and 2009 contributions to RENFE-Operadora to offset general losses from the rest of RENFE-Operadora's activities were as follows.

Table 27. Contributions to the budget item offsetting RENFE-Operadora's losses. 2006-2009

| Year | Thousand curos |
| :---: | :---: |
| 2006 | $[\ldots]$ |
| 2007 | $[\ldots]$ |
| 2008 | $[\ldots]$ |
| 2009 | $[\ldots]$ |

Source: Compiled by the CNC from data provided by RENFE-Operadora.
(337) Royal Decree Law 22/2012 restructured RENFE-Operadora as four State commercial companies whose share capital would belong entirely to RENFE-Operadora, and which would run the following business units: (i) passengers, (ii) freight and logistics, (iii) manufacturing and maintenance, and (iv) leasing of rail assets.

[^72](338) Although separating the undertaking into several units could lead to greater control and the allocation of accounts to each unit, thereby preventing any cross subsidies between the different units, that change is not sufficient to resolve the problems highlighted. In the Position Report on Royal Decree Law 22/2012 of 20 July the CNC, accordingly, stated that: "the way that restructuring is formulated could prove insufficient. Each company's independence must not be merely formal and legal, but also at an accounting and functional level, so that each one of those undertakings has decision-making autonomy and cannot be influenced by the others".
(339) Lastly, the risk of cross subsidies emerging and placing RENFE-Operadora in a better operational position where it is in competition with its rivals is not only liable to occur between divisions, but can also arise in purely logistics activity. RENFE-Operadora is the sole operator of many railway lines and could be in a position to offer better prices on the lines where there is competition at the expense of increasing the price of the service on lines where it has no competition ${ }^{194}$. The advantages of scale and network advantages with which RENFE-Operadora starts out, together with all the barriers to entry, operating and expanding in the market, indicated in this report, could help an inefficient pricing structure to remain in place over time. That situation was recently found to exist in the French market, regarding the incumbent $\mathrm{SNCF}^{195}$.

## IV.4.5. Links with ADIF and the Ministry of Development

(340) A further key element which could benefit RENFE-Operadora in the rail markets is its close link with other leading actors in those markets, in particular the Ministry of Development and ADIF.
(341) RENFE-Operadora and ADIF have a common origin, which goes back to the creation of the former RENFE, founded as a public body in 1941, and remained in place until 2005, when the statutory monopoly in the provision of rail transport in Spain came to an end.
(342) Although that separation has given rise to a number of confrontations between the two new public enterprises ${ }^{196}$, the separation between ADIF and RENFE-Operadora is not yet complete, and they therefore retain links which could give rise to anti-competitive aligned incentives.
(343) Both companies are public enterprises attached to the same department, the Ministry of Development, and in accordance with the Ministry's current structure ${ }^{197}$ both report directly to the head of the ministerial department.
(344) ADIF, as the RFIG administrator, is charged, amongst other tasks, with preparing and publishing the network statement, allocating capacity to rail companies who so request, issuing reports prior to the grant of licences by the Ministry of Development and collecting charges for the use of rail infrastructure. In all those tasks ADIF is required to act impartially, guided by, amongst others, the principle of efficiency, in so far as

[^73]these are decisions which influence the configuration and operation of the market. Overly close links with RENFE-Operadora could cause dysfunction in performance of its activity or in the design of rail fees or charges, as discussed above.
(345) There are also structural links between RENFE-Operadora and ADIF which reinforce the ties between the two companies. Since February 2012 the chairman of RENFEOperadora has been a member of ADIF's board of directors, which is responsible for "directing its senior administration and management", together with other powers which include ${ }^{198}$ :

- Issuing any reports, whether mandatory or discretionary, to be provided by the Rail Infrastructure Administrator, under the LSF, its implementing regulations or this Statute, at the request of the bodies of any public administration.
- Approving the network statement and performing the other functions in relation to access to the RFIG attributed to ADIF under the LSF and its implementing regulations.
- Issuing reports prior to the grant, by the Ministry of Development, of rail company licences and authorisations to provide services declared to be in the public interest, in the situations under the LSF.
- Granting and renewing safety certificates, when so determined by the Ministry of Development.
(346) Those decisions directly or indirectly affect some or all of the companies operating in those markets. The fact that the most senior representative of the incumbent company participates in decision-making by the infrastructure administrator therefore gives RENFE-Operadora unnecessary, disproportionate and unique advantages, in terms of decision-making, influence and access to information.
(347) There is another fact which, once again, reveals RENFE-Operadora's advantages over the rest of its competitors. Order FOM/2909/2006 identifies the assets, obligations and rights belonging to RENFE-Operadora. On the basis of that regulation, RENFEOperadora has a usufruct right over certain assets ${ }^{199}$ at ADIF's terminals, which it does not make available to the other rail companies, obliging the other companies to incur additional costs, which could be avoided if RENFE-Operadora made those assets available to them.
(348) The foregoing reveals the de facto lack of separation between those undertakings and of those undertakings from the Ministry of Development, as the system regulator. This can undermine the credibility of the system and confidence in it on the part of new operators or potential entrants, giving rise to reduced incentives to enter and, in consequence, less competitive tension in the market. The CRF itself, in its 2011 Annual Report, states that there is a "blurring of roles between the Ministry of Development and ADIF on the one hand, and between the Ministry of Development and RENFEOperadora on the other".

[^74]
## IV.4.6. Links between RENFE-Operadora and other competitor companies

(349) RENFE-Operadora has holdings in the capital of a series of companies in which other competitor rail companies also have holdings. This is the case with Construrail ${ }^{200}$, Cargometro ${ }^{201}$, Autometro ${ }^{202}$, Combiberia ${ }^{203}$ and SEMAT ${ }^{204}$. Although these are not majority holdings, the presence of RENFE-Operadora in the capital of companies in which some of its competitors also have holdings represents a structural link between RENFE-Operadora and those companies and could weaken the intensity of competition between RENFE-Operadora and the other railway companies. It should be noted that the Plan to Restructure and Rationalise the State Public Business and Foundations Sector provides for disinvestment from all those companies.

## IV.5. An underdeveloped CRF

(350) The LSF brought a new actor to the system, the Rail Regulation Committee (CRF), a regulatory body attached to the Ministry of Development, with powers, amongst others, to safeguard diversity in the supply of services on the General Interest Rail Network and to resolve disputes between rail companies.
(351) The provisions initially governing the CRF were amended in 2011 by the Sustainable Economy Act $2 / 2011$ of 4 March (LES). Following those amendments the Commission found that the CRF's powers do comply with the provisions of the first railway package and finds it to be sufficiently independent from the Ministry of Development for the purposes of performing its functions with a sufficient guarantee of impartiality ${ }^{205}$.
(352) However, that fact cannot prevent attention from being drawn to certain factors which undermine the CRF's capacity for action and its credibility, indicated to the CNC by the rail operators consulted.

[^75](353) In its 2011 Annual Report, the CRF stated that despite the amendments to the LSE in order to give it full functional independence, "the fact is that it has remained the same as before as regards the weakness of its the legal form - in contrast to the other regulators in Spain and Europe, all of which have legal personality and are independent in form and in practice -, being merely a corporate administrative body, with no legal personality and with no resources of its own". The CRF Report continues: "it is also the case that there is a statutory duty on the Ministry of Development to satisfy any need it may have, which the CRF itself determines, but that in the first year its statutory support and collaboration was almost zero."
(354) The Consultative Council on Privatisations (CCP) emphasises the limitations of the CRF in its 2011 Report on Rail Freight Transport (Informe sobre el transporte de mercancías por ferrocarril). It states that it is "a corporate body which is administratively part of the Ministry of Development [...] Further, its functions do not cover important aspects of regulation, the extent of the resources it will have in the future is not known and there is no specific budget to finance the CRF".
(355) The foregoing undermines its credibility in the eyes of the other actors in the rail system, particularly new operators, an essential attribute if the participants in those markets are to show their confidence in the regulator.
(356) Accordingly, first, the various amendments to the legislation have not given the CRF legal personality, in contrast to the other regulators in Spain and Europe, all of which do have legal personality.
(357) Secondly, the CRF has no resources of its own. The body does not have its own budget or its own premises (its offices are inside the Ministry of Development), IT resources or its own office equipment (the CRF does not have its own website or e-mail server, both of which are instead linked to the Ministry of Development domain).
(358) The CRF's staff is clearly insufficient to fulfil the tasks allocated to it by the LSF. The only people who belong to the CRF are the members, in the strict sense, of the Committee, which comprises, in addition to the chairman, two full-time members, another two part-time members and the CRF secretary, likewise part-time ${ }^{206}$.
(359) Furthermore, the powers given to the CRF are confined to dispute resolution. The Ministry of Development has expressed doubts as to the CRF's ability to issue reports on and make proposals for legislation. As the CRF pointed out in its Resolution on charges ${ }^{207}$, the Ministry informed the CRF that "the role which the Rail Sector Act as currently worded gives to the CRF does not expressly include issuing reports which propose reforms to rail regulations, and therefore the value of the reports is that they indicate general strategies for regulatory reform which will not bind the Ministry's statute-making bodies and have not been drawn up at the request of or on the instruction of those bodies".
(360) Furthermore, the CRF does not have power to issue regulations developing and implementing rail legislation or to issue circulars. Nor are its resolutions intended to be binding.
(361) All those factors reduce the CRF's ability to influence the proper functioning of the system. As the CCP has specified, "the CRF's characteristics do not ideally suit it to

[^76]generating the trust and reputation necessary to impact on the expectations of economic actors in the sector (both operators and customers)".

## V. CONCLUSIONS

First. The study has found a very low level of effective competition in rail freight transport in Spain
Rail transport in Spain has traditionally been in the hands of the public enterprise RENFE, founded in 1941. Following the first measures adopted at the end of the last century and the beginning of the 2000s, rail freight transport was formally liberalised in Spain in 2005, and that measure was supplemented by the separation of infrastructure administration, which was entrusted to ADIF, from provision of the rail service, now provided by RENFE-Operadora in competition with new entrants.

This study has found nevertheless that the liberalisation of rail freight transport in Spain has met with little success. Eight years after the liberalisation of the rail freight transport market, only 16 rail company licences have been granted and only six companies compete with the traditional incumbent operator, and their combined market share only represents $15 \%$ of the market ${ }^{208}$. RENFE-Operadora has significant market power, reflected in the fact that it has kept a market share of around $85 \%$. That situation is also striking in the international context, in so far as Spain is one of the European countries where the traditional incumbent still retains one of the highest percentages of the market.
Besides the figures, there are other factors that show that new entrants are relatively weak compared with the traditional incumbent. RENFE-Operadora is the only rail operator which has local networks able to reach all parts of national territory, and it is the only railway company which transports all kinds of freight, whereas the activity of other companies is highly concentrated in particular geographical areas and on particular customers. Certain services, such as freight transport on the metric gauge network or the connection with France via the TP Ferro crossing (which is the only connection with France on international - UIC - gauge tracks), are only provided by RENFE-Operadora amongst the companies operating in Spain.
The study has also found that RENFE-Operadora has a predominant position in services related to the provision of rail freight services which are necessary in order to provide a proper service. First of all, as regards rolling stock, it has been available to new entrants only on a limited basis, whereas RENFE-Operadora is in possession of almost $90 \%$ of locomotives and more than $90 \%$ of the wagons capable of carrying freight on the RFIG. These percentages are higher than its share of the rail freight market. Secondly, in maintenance and repair operations, where Integria's workshops, which belong to RENFEOperadora, repair almost $90 \%$ of locomotives and more than $90 \%$ of wagons. Moreover, the main rolling stock manufacturers do not provide maintenance and repair services for their stock directly, but through joint undertakings with RENFE-Operadora, using RENFEOperadora's facilities.
Lastly, the study has also found a weak competitive structure in the provision of services at logistics terminals, where ADIF, which administers virtually all the State rail infrastructure (the General Interest Rail Network, RFIG) is also in a very strong position.

[^77]
## Second. A comparative analysis between Spain and other countries suggests that rail freight transport in Spain is underdeveloped and has low efficiency levels.

The study has made a series of international comparisons in order to place the situation of rail freight transport in Spain into context, and which suggest that this mode of transport is less efficient than in other countries.

First, the comparative analysis of infrastructure reveals that the relative size of the rail network (in relation to the surface area of the country) is smaller than in the principal European economies (Germany, the United Kingdom, France and Italy), despite the fact that the infrastructure is used much less intensively in Spain than in those countries (tonnekilometres carried for each kilometre of the rail network). The comparison shows the peculiarity of the Spanish lines that have three different gauges, whereas in Central Europe the same gauge (UIC) predominates. The UIC gauge exists in Spain only on $15 \%$ of track, most of which is used exclusively for passengers.

Secondly, the proportion which rail represents of all means of freight transport in Spain is much lower than the average for European countries (in 2011, rail represented $4.2 \%$ of inland freight transport in Spain, compared to an average of $17 \%$ in the EU-27), and in particular much lower than the proportion it represents in the main economies of the EU. Furthermore, that proportion has fallen considerably in the last decade, and has done so more steeply in Spain than the average in the EU and in the principal European economies. Taking into consideration that transport is a necessary input for domestic and international trade in goods, the fact that development of rail transport in Spain is sub-optimal could undermine the competitiveness of the Spanish economy and could have adverse external consequences, as the advantages in terms of cost and pollution, which rail has compared to other modes of transport, are not exploited.

Thirdly, as already indicated, Spain is notable as one of the countries with the least success in the entry of new operators into the market, and considering the five principal European economies, Spain displays the worst data. Accordingly, the market share of new operators in Spain ( $8.2 \%$ in 2010) was far below that recorded in 2010 in the United Kingdom (51.4\%), Germany ( $25 \%$ ), Italy ( $24.1 \%$ ) and France ( $20 \%$ ).
Lastly, RENFE-Operadora is relatively inefficient in its use of resources, both personnel and rolling stock, compared to the behaviour of the other European incumbents. All the data that compare volume carried or income with the resources employed in terms of personnel and rolling stock relegate Spain to the last positions of the ranking of European countries. Furthermore, the fact that the Spanish incumbent represents a relatively greater proportion of the market in Spain than other countries implies that the overall efficiency of rail freight transport in Spain is lower than in other countries, thereby exacerbating the problems of competitiveness already identified.

## Third. There have been identified five groups of factors which fetter competition in rail freight transport in Spain

On the basis of the regulatory and economic context of rail freight transport and consultations of actors in the sector, there have been identified and classified the main factors which operate as barriers to companies to enter and expand in the railway market. These groups relate to infrastructure, infrastructure administration, the regulation of access to and the pursuit of rail activity, the unique advantages given to RENFE-Operadora and the insufficient development of the rail regulator.

## a) Characteristics of the infrastructure:

As regards the characteristics of the infrastructure, the main weaknesses in the Spanish model are as follows.

First of all, international isolation, which is due to the fact that Spain has three different gauges, hinders the interconnections within Spain and, particularly, with the countries of central Europe, where European or UIC gauge tracks predominate. Other factors such as the electrification of the networks exacerbate those interconnection problems, also in that case affecting the connection with Portugal.
Secondly, the Spanish infrastructure does not allow freight trains to run at an appropriate speed, since there are few lines exclusively for freight transport and because absolute priority is given to passenger transport over freight, the latter have to wait in sidings for long periods.

Rail infrastructure and terminals in Spain are not adapted to the length of European trains ( 750 m. ), which accentuates the interconnection problems with other countries and limits the potential for developing rail in Spain, and reduces its competitiveness compared to other modes of freight transport.

Lastly, a structural weakness in the Spanish rail model is that there has been little development of intermodal transport, both with road, due to lack of logistics facilities, and with maritime transport, in so far as the rail access at a number of general interest ports is yet to be completed and electrified.

## b) Rail infrastructure administration:

As regards the administration of rail infrastructure, shortcomings have been observed which prevent rail activity from being carried on more efficiently.
First, there is a lack of flexibility in the management of terminals, whose opening dates and timetable fail to meet the needs of the rail companies and contribute to the creation of bottlenecks.

Secondly, there is widespread dissatisfaction with the provision of additional, complementary and ancillary services at ADIF's logistics terminals, with the effect that there is no clear regulation of the terms on which ADIF should provide those services nor rules on how services at ADIF's terminals are provided by third parties other than ADIF or by the rail companies themselves (self provision). This situation gives ADIF a wide margin for discretionary action to determine both aspects and raises a clear conflict of interest, far from an optimal situation.
Thirdly, there are congestion problems near the major urban centres. In traffic management absolute preference is given to passenger traffic over freight traffic, which exacerbates the problems in running freight trains, increasing their waiting times and reducing their average speed.

## c) Regulation of access to and pursuit of rail activity:

First, the procedures to obtain and renew the qualifying permits (licences, safety certificates, rolling stock approval and permits for driving personnel) are burdensome and take a long time, which could deter the entry of new operators.

Secondly, the charges do not stimulate efficient infrastructure use, do not provide a disincentive to strategic behaviour which monopolises rail capacity, are complex and are relatively more onerous in structure for new entrants than for the incumbent.

## d) Specific advantages of RENFE-Operadora:

RENFE-Operadora enjoys some significant advantages over its competitors, thanks to the current regulation or to decisions made in the liberalisation process.

First, "grandfather clauses" are provisions in the regulations which exempt RENFEOperadora from complying with certain requirements imposed on its rivals or which give it priority over its competitors. An example could be seen in capacity allocation, where regulation provides that, where there is congestion, one of the main criteria to decide among applications for the same train path is continuity in provision of the service, an aspect which favours the incumbent over new entrants.

Secondly, RENFE-Operadora receives public financing, and although in recent years the financing has not been granted specifically for freight transport, it is not possible to verify whether it is actually used for the purposes for which it is granted, as the Public Accounts Court (Tribunal de Cuentas) stated in its 2011 report on RENFE-Operadora. Nor is it inconceivable that this might favour RENFE-Operadora's position in situations where it competes with other companies, given the possibility that RENFE-Operadora could create direct or indirect cross subsidies between activities or even between stretches of railway within its freight transport activity.
Thirdly, the problems described above are exacerbated by RENFE-Operadora's leading position in related activities necessary to provide rail services, such as the availability of rolling stock and the provision of rolling stock maintenance and repair services, which give the incumbent the means to hinder its competitors' activity, by delaying or increasing the cost of that activity. Whilst it is not necessary to find that such hindrance has actually taken place, the mere possibility that such behaviour might occur erodes the incentive for other companies to constitute an effective source of competitive pressure on RENFE-Operadora.

In addition, RENFE-Operadora has a series of structural links with some of its competitors, in the form of joint holdings in a number of companies, a situation which further reduces the ability of those competitors to constitute a genuine source of effective pressure.
Fifthly, RENFE-Operadora has significant links with ADIF and with the Ministry of Development, actors which play an essential role in ensuring effective competition in the market. Specifically, in view of ADIF's dominant position in the management of rail infrastructure ${ }^{209}$, in providing services at rail terminals ${ }^{210}$, and its link with RENFEOperadora, such ties could diminish operators' confidence in the neutrality of the institutions, thereby deterring them from exerting effective competitive pressure.

## e) Market control and supervision:

The Rail Regulation Committee (CRF), the body currently charged with supervising competition in the system, displays a series of limitations which undermine its decisionmaking ability and the credibility of its actions in the eyes of rail operators. The CRF does not have legal personality or its own resources and it is subordinate to the Ministry of Development for the purposes of budgets, equipment, facilities and IT resources. Moreover, it does not have sufficient personnel to fulfil all the responsibilities contained in the regulations and it has no powers to impose penalties or to develop implementing regulations in the rail sector. Some of those issues may, however, be partly overcome with the proposed creation of

[^78]
## Fourth. Improving the competitive environment of the market requires decisive global action on the factors identified

The considerations set out above reveal a need for a structural review of the rules governing the functioning of the rail sector in Spain and its organisation. The lack of competition in rail freight transport in Spain is probably not the only factor explaining why Spain lags behind other countries in this sector, but it is undoubtedly one of the main factors contributing to that situation. If competition in rail freight transport in Spain is to be increased, isolated or unconnected measures are not sufficient. Rather, the market players must receive a credible commitment by the authorities which effectively eliminates the inefficiencies of the system and, in particular, the favourable treatment given to the incumbent operator and its advantageous position in access to certain services.

## VI. RECOMMENDATIONS

The recommendations made below are aimed at raising the level of effective competition in the sector. Greater effective competition is desirable because it helps optimise prices, stimulate the necessary investment and speed up innovation. Those factors would contribute to improving the competitiveness of the Spanish economy and the overall objectives for growth and jobs.
The recommendations are divided into five blocks, each aimed at one of the groups of the main problems in rail freight transport observed in the course of the study.
The first block relates to the fact that infrastructure is not tailored to the needs of a rail freight transport. The study does not seek to recommend an increase in expenditure, given the current serious economic situation, but does flag the fact that any planned investment must take into account how it contributes to improving competition in rail freight transport, so that those criteria form part of the cost-benefit analysis carried out by the competent authorities when planning that investment.

Secondly, certain aspects of infrastructure administration have been observed which do not contribute to its optimal use and that do not let companies develop their full potential. Particularly, as regards traffic and terminal management, a number of recommendations are made to improve companies' efficiency and to foster circumstances in which companies can develop and differentiate their services, aspects which are essential to stimulating competition.

The third block of recommendations concerns regulating access to the market and charges. Various recommendations aimed at ensuring that the requirements for entry comply with the principles of necessity, proportionality and non-discrimination which must prevail in order to minimise any adverse impact, where necessary, on access restrictions and the exercise of competition.

Fourthly, there are a series of recommendations aimed at mitigating the disproportionate advantages of the incumbent operator in Spain, which give RENFE-Operadora superiority in the market over new entrants and are one of the main barriers to competitors entering and expanding in the market.

Lastly, a series of recommendations are made aimed at strengthening market supervision and control.
The recommendations included below have been classified according to the structure used in the study, and are not in any order of priority. In any event, the most harmful barriers to competition are those which give advantages to the incumbent over new entrants. Therefore, the recommendations aimed at attenuating that situation should be addressed as the highest priority.

## A) Rail infrastructure

Infrastructure can be a decisive factor for the competitive structure of the rail freight market. The cost-benefit analyses as part of planning rail infrastructure in Spain and of investments must incorporate factors relating their impact on effective competition in the market.
1.1. The factors which hinder interoperability with other European countries and limit operating length and speed make rail less competitive than other modes of freight transport, diminishing the incentives for operators to enter and expand in the market and, thereby, restricting competitive pressure in the market. Investment to adapt Spanish rail tracks to the international (UIC) gauge, particularly in the rail corridors with most traffic, and to increase the length and number of sidings on the lines and at terminals could therefore favour competition. Those factors would not only make rail more competitive in relation to other modes of freight transport in Spain, but would advance integration of the Spanish rail freight market with the markets of Central Europe.
1.2. Limitations on access to certain ports, specifically the lack of connection between rail networks and the points where cargoes are generated or handled, constrain the development of intermodality between rail and maritime transport, reducing the incentives for logistics operators to enter and expand in the rail market. From a competition perspective, it would be positive to foster investments such as the construction of rail access tracks at the ports that still do not have this access and adapting the ports' internal networks to allow rail access to the inner terminals and minimise loading and unloading processes.
1.3. Near major urban centres, congestion caused by freight and passenger trains running on the same lines slows the operating speed of freight trains, reducing their competitiveness compared with other modes of transport and, therefore, the incentives for logistics operators to enter and expand in the market. Thereby, the construction of loop lines at the major urban centres where there is congestion could serve to foster competition in rail freight transport.

## B) Rail infrastructure administration

## Second. Improving traffic management

A number of improvements in the management of rail traffic could increase the efficiency of rail freight transport and, thereby, make it more attractive for rail companies to enter and expand in the market. In particular, there should be progress in the following areas:
2.1. Allowing freight trains to run on UIC gauge lines ${ }^{211}$, where technically possible. The passenger trains which currently run on the UIC (high speed) tracks have not exhausted the full capacity of the infrastructure, and it would therefore be possible for

[^79]freight trains to run at times when there are no passenger movements, even adhering to the maintenance slots (which could possibly be reduced in duration). Running freight trains on UIC gauge track, with any necessary technical and safety limitations, could help reduce one of the main obstacles to international freight transport, by facilitating connections with France. Using the UIC gauge for freight transport would also give rail operators access to a wider market in rolling stock, as European markets would be available.
2.2. Facilitating the use by freight trains of the conventional lines freed up by the reduction in passenger trains. At present, the fact that passenger trains run at higher speeds on the same lines as freight trains means that the latter have to wait for long periods in sidings. In so far as passenger trains run increasingly on UIC gauge tracks, more train paths can be made available for rail freight transport on the lines freed up from passenger traffic. This would reduce the time freight trains have to wait in sidings, it would increase their average speeds and it would reduce total journey time.
2.3. Giving priority to economic criteria in allocating capacity where there is congestion. The discretionary criteria for resolving situations where there is congestion or more than one request to use capacity on the same path can generate legal uncertainty amongst operators and should be eliminated and replaced by objective, transparent and non-discriminatory criteria. Capacity allocation and the procedure for accepting or refusing requests for capacity from rail operators should be regulated, so that they can be controlled and monitored.
2.4. Introducing penalties for reserving unused capacity. Otherwise, there might be incentives for established operators to monopolise capacity strategically in order to restrict their rivals' chances of growing.

## Third. Improving terminal management

The management of rail terminals is a strategic component of efficient rail logistics and a fundamental distinguishing factor between rail operators. Improving terminal management and competition between terminals could stimulate competition in the rail services market. In order to encourage operators to settle at terminals it is vital to create a stable, lasting and predictable framework which favours competition and investment.
3.1. Developing and implement the provisions of the LSF and the RSF on additional, complementary and ancillary services and on the charging framework for additional and complementary services, where regulatory development and implementation is still pending, and doing so in a manner which favours competition in order to limit the margin of discretion of the infrastructure administrator in relation to:
a. Identifying the terminals where complementary and ancillary services can be self provided or provided by third parties. It emerges from the analysis that ADIF has complete discretion to determine the terminals where those arrangements are possible. Self provision or third party provision should be allowed at all terminals on the RFIG.
b. As well as identifying the terminals where self provision and third party provision is permitted, there are other problems concerning regulation which impede the development of those services at ADIF's terminals. In order to make progress in service provision it is necessary:
i. To allow self provision shared between more than one operator. That option is currently not provided for in the legislation, thereby entailing higher costs for rail operators which could be alleviated by sharing the self provision of those services.
ii. To develop and specify the requirements for obtaining the qualifying permit to provide complementary and ancillary services. The principle of transparency suggests that a public tendering procedure should be held to grant those qualifying permits.
iii. To define the terms on which ADIF enters into agreements to provide accommodation and the criteria according to which complementary services should be provided. The lack of implementing provisions increases ADIF's discretion in relation to the provision of complementary services, which should be provided on objective, transparent and non-discriminatory terms. Lastly, ADIF should not tie provision of a complementary service to the purchase of all complementary services, but should allow each service to be purchased separately at a reasonable cost conducive to competition.
c. Classifying services as complementary or ancillary services. ADIF is currently competent to determine whether a service belongs to one category or the other, and there are no transparent rules on how it should do so. In the interests of greater legal certainty, ADIF's ability to change the classification of services between complementary and ancillary - should be reduced, in so far as the nature of the services does not change, and there is therefore no objective basis for changes of opinion as to their classification. The classification of a service as complementary or ancillary is not insignificant, in so far as it affects its charging framework and whether or not ADIF is obliged to provide the service. The regulations should therefore define stable and objective criteria for classifying those services.
d. Establishing the rules for the provision of complementary and ancillary services at the ADIF terminals. It is currently ADIF which, at its discretion, establishes how services are provided at its terminals, and this can reduce legal certainty and the economic planning ability of operators wishing to invest. A specific aspect in this regard is observed in the charges for ancillary services provided by ADIF, which constitute revenue governed by private law agreed by the parties. The regulations should establish that charges for ancillary services, even though they are revenue governed by private law, should be based on principles of objectivity, transparency and non-discrimination.
3.2. Making terminal opening dates and timetables more suited to the needs of the rail companies. The rigidity and unsuitability of the opening times and dates cause long waits for freight trains, with increasing costs for the rail operators. More flexible operating times at the terminals will enable rail companies' costs to be reduced.
3.3. At those ADIF terminals where RENFE-Operadora has usufruct or equivalent property rights over certain assets, it should be ensured that those resources are fully available to the other rail companies at a reasonable cost. There would otherwise be an incentive for RENFE-Operadora not to make that equipment available and to oblige the other rail companies to invest in duplicate assets, giving rise to an increase in their costs and lower overall efficiency.
3.4. To prevent ADIF from giving priority to information about its own terminals, it is necessary to increase transparency and access to up to date information about all logistics terminals, both public and privately-owned, connected to the RFIG. ADIF's network statement, which currently includes only information relating to its own rail terminals, should therefore include relevant information to the operators about the privately owned terminals and sidings connected to its network and the characteristics of the connections. Moreover, the rail regulator should publish detailed homogeneous information on all the terminals on the RFIG.

## C) Regulation of companies' access to the market and pursuit of the activity

Fourth. Bringing the access market requirements into line with the principles of necessity, proportionality, transparency and non-discrimination.

The requirements for accessing the market should be revised to bring them into line with the principles of necessity, proportionality, transparency and non-discrimination.
4.1. The requirements laid down for obtaining railway undertaking licences and safety certificates should be made simpler, cheaper and more flexible, thereby ensuring that those requirements comply with the principles of necessity, proportionality, transparency and non-discrimination. The fact that the European licence is valid in Spain does not hide the fact that operators who wish to commence their activity in Spain tend to apply for their first licence in Spain, so that the way in which those licences are granted can have adverse effects on the market. Furthermore, licences are renewed in the country where they were obtained, as are safety certificates. In relation to safety certificates, the requirement to provide traction in the initial stages of the market access procedure is excessive in so far as it represents an unnecessary cost for new rail entrants.
4.2. Making the requirements for the approval of rolling stock simpler, cheaper and more flexible, thereby ensuring that those requirements comply with the principles of necessity, proportionality, transparency and non-discrimination. Various actors are involved in the process of approving rolling stock (the certification body, ADIF and the Ministry of Development), and this can disproportionately increase the time to obtain approval of rolling stock.

## Fifth. Regulating relations between rail companies for the purposes of training periods to obtain driving certificates

Since railway companies sometimes need their competitors in order to obtain driving certificates, those requests need to be regulated to prevent them from being used strategically to delay or prevent the entry of competitors. Whenever a railway company wishes to obtain a permit for a driver for a new stretch on which the company does not operate at that time and for which, therefore, it has no qualified drivers, it has to turn to another railway company which does operate on that stretch, so that a driver from the second company can accompany the driver from the company wishing to enter the market on that stretch during a training period.
5.1. Establishing a transparent protocol for managing requests for training periods on a new stretch, which:
a. would allow a register to be kept of requests between rail companies and the terms on which they were granted.
b. would oblige the rail companies which operate on the stretch in question to guarantee access to that training on reasonable terms as regards time and cost.

## Sixth. Improving the design of charges

The charges for accessing and using rail infrastructure should be strictly in line with the principles established in the LSF, in order to ensure that the framework perceived by operators is stable, lasting and predictable. It should also contain incentives for efficient use of infrastructure and sustainability and to encourage investment.
6.1. Establishing a transparent methodology in accordance with the principles under article 73 of the LSF, constituting a pro-competition system of incentives which facilitates efficient use of rail infrastructure. It would seem preferable that, as established by Directive 2001/14/EC, ADIF should have power to set the charges, subject, where applicable, to ex ante control by the regulator, to ensure efficient use of infrastructure and that costs are covered. Criteria relating to infrastructure sustainability and its efficient use which must, in any event, comply with the principles of transparency, objectivity and non-discrimination, thereby become even more paramount.
6.2. Simplifying charges and introducing criteria for imposing penalties for nonutilisation of reserved capacity. The existing configuration of nine rail charges can be highly complex for new entrants. Moreover, penalising capacity reserved but not used will reduce the incentives for rail operators to reserve surplus capacity thereby closing certain stretches to competitors.
6.3. Abolishing or changing the structure of the access charge so that the average traffic-based charge is not degressive, as it is at present, in so far as the situation deters new entrants. The existing configuration of this charge means that the average cost of the traffic-based charge is degressive and, therefore, new entrants pay relatively more to access infrastructure than the incumbent operator. This recommendation is intended to reduce the advantages of the dominant operator as regards this specific cost and to alleviate the cost of the charge which new entrants have to bear in the initial stages of their operations.

## VII. RENFE-Operadora's asymmetrical advantages

## Seventh. Making RENFE-Operadora more independent of the Ministry of Development and ADIF

7.1. Ensuring that RENFE-Operadora is not attached to the same body as the system regulator or the infrastructure administrator. RENFE-Operadora should not be attached to the same ministerial department as ADIF. Any risk of favouring the incumbent or deterring the entry of competitors for reputational or credibility reasons should be avoided. If it remains public, it is preferable that RENFE-Operadora be attached to a different body unconnected with the rail sector.

### 7.2. Ensuring that RENFE-Operadora is functionally separate from the Ministry of Development and ADIF. This recommendation could be implemented by establishing a code of conduct and rules for appointing and removing employees of RENFE-

Operadora which would ensure absolute decision-making independence from the Ministry of Development and ADIF.
7.3. Prohibiting the presence of members of RENFE-Operadora's board of directors in ADIF and vice versa, in so far as this involves RENFE-Operadora having access to commercially significant information and allows the two companies to align their incentives. The chairman of RENFE-Operadora is currently on ADIF's board of directors. This entails a clear disadvantage for the other operators in the market, who have no stake and, therefore, do not have access to the same information and the same ability to influence decision-making.
7.4. Ensuring that RENFE-Operadora is autonomous and financially self-sufficient, thereby removing any advantages over new entrants in terms of financing. In so far as from 2011 RENFE-Operadora has only received public funding in relation to the public service obligation to provide passenger transport, accounting and functional independence between the passenger service and the freight service must be ensured so there are no cross subsidies between the two activities.

Eighth. Making the provision of rail services independent of all other related activities within RENFE-Operadora
We strongly recommend that the provision of rail stock to third parties and its maintenance and repair should not be controlled either directly or indirectly by RENFE-Operadora. Otherwise, incentives may emerge to take advantage of those activities to impede access to its competitors. Because those activities are strategic, we also recommend that third parties should have access to those services on objective, transparent and non-discriminatory terms.
8.1. Making the companies which sell and lease rolling stock and maintain and repair of rolling stock independent from RENFE-Operadora in legal, accounting and functional terms, thereby avoiding incentives to cross subsidies between the various areas of activity. It must also be borne in mind that the common links between the rolling stock manufacturers and RENFE-Operadora through the common rolling stock maintenance and repair undertakings reduces the level of effective competition amongst the manufacturers and between the manufacturers and RENFE-Operadora in rolling stock maintenance and repair activities, a factor which should be borne in mind for the purposes of applying the merger control legislation and articles 1 to 3 of the Spanish Competition Act 15/2007 of 3 July 2007 (Ley de Defensa de la Competencia).
8.2. Ensuring transparent sale and leasing prices and non-discriminatory access by third parties to rolling stock currently owned by RENFE-Operadora. RENFEOperadora, because it owns the largest fleet of rolling stock specifically for the Spanish infrastructure, may have an incentive to eliminate third party access to that rolling stock by charging high prices or imposing an excessively long time to place rolling stock in operation. In view of the peculiarities of the Spanish track gauge, new entrants have few options for accessing rolling stock on other markets. The prices and terms for access to rolling stock must therefore be transparent.
8.3. Ensuring price transparency and non-discriminatory third party access to the rolling stock maintenance and repair operations currently carried out by RENFEOperadora. RENFE-Operadora carries on the rolling stock repair and maintenance activity through Integria. Together with the main rolling stock manufacturers it also has holdings in joint repair and maintenance undertakings. It may therefore have an incentive to delay maintenance operations for third party rail companies by charging
high prices or imposing an excessively long time to place rolling stock in operation. The prices and terms for access to rolling stock must therefore be transparent.

## D) Market control and supervision

## Ninth. Strengthening the rail regulator

Setting up a regulator with sufficient powers and fully independent of the Government is vital if operators are to be attracted to enter the market, in so far as such a body could ensure regulatory stability and the predictability and credibility of its actions, thereby increasing legal certainty. The proposed creation of the National Markets and Competition Commission is an opportunity, which should not be missed, to ensure that the rail regulator is given the resources and powers it needs to ensure that regulation is credible.

### 9.1. Giving the rail regulator legal personality, financial autonomy and sufficient material and human resources to fulfil its responsibilities.

9.2. Giving the rail regulator the full powers of a regulator, thereby increasing its presence in the market. The existing powers and responsibilities should be extended to cover issuing rail legislation implementing regulations and publicising circulars and its ability to impose penalties.

## ANNEX: EXPERIENCES OF RAIL FREIGHT TRANSPORT LIBERALISATION IN THE LARGEST ECONOMY EUROPEAN COUNTRIES

## Germany

1. Germany was one of the first European countries to undertake major reforms in the rail sector. They began in the 1990s, before the EU approved the first railway package. Today, in 2010, the market share of rail freight transport in Germany was $22 \%$ of all modes of inland transport, new entrants represent $25 \%$ of the market and 140 companies have rail company licences.
2. At the end of the 1980s Germany proposed merging the two rail companies ${ }^{212}$ into a single monopoly, and that process was completed in 1994 through the creation of a single company, which in 1999 was incorporated as a holding company, Deutsche Bahn AG, a public limited company wholly owned by the German State.
3. A parallel process was commenced to reform the German rail system (coinciding with the 1991 and 1995 Community Directives), which took the form of liberalisation of the sector and the entry of new operators into the market in 1994, the creation in 1996 of the Federal Rail Agency (Eisenbahnbundesamt), which acted as a specific regulatory body for the rail sector, and regionalisation, a process under which responsibility for regional and local train services was transferred to the Länder, resulting in the regions becoming responsible for managing the network and allocating infrastructure capacity on it.
4. The liberalisation model chosen in Germany differs from the model more common in the European Union which envisages complete separation between the infrastructure administrator and the transport service. In Germany, both activities are in the hands of the public holding company DB AG, which, initially, was structured internally as four divisions - local and regional passenger transport, long distance passenger transport, freight transport and infrastructure. The company underwent an internal restructuring in 2008, giving rise to a new company, DB Mobility Logistic AG (DB ML AG), responsible for the logistics and transport service, whilst DB Netz kept its responsibilities in relation to the administration and maintenance of infrastructure (and terminals administered by it) and energy supply. It was initially planned that $24.9 \%^{213}$ of the capital of the new DB ML AG, would be privatised, although to date it has remained an entirely public undertaking.
5. That vertical integration model has been questioned at Community level. The European Commission brought an action against Germany for failure to fulfil its obligations under the first railway package, taking the view that the existing structure lacked independence between the infrastructure administrator and the transport service operator ${ }^{214}$. The CJEU ultimately dismissed the action.
6. Other agents are currently involved in the German rail freight transport market, in addition to the holding company DB AG, mentioned above. The issuing of licences, on the one hand, is the responsibility of Eisenbahn-Bundesamt (EBA), as are the issuing of safety certificates and the approval of rolling stock. On the other hand, in 2006 a series

[^80]of responsibilities of the former rail regulator were taken over by a new agency, the Bundesnetzagentur, which acts as the regulatory body for all sectors of the network. The infrastructure administrator is responsible for setting charges, which are determined on the basis of full recovery of costs, less subsidies received.

## France

7. In France rail has a $13.5 \%$ share of the market for all modes of inland freight transport, and new entrants now have a $20 \%$ share.
8. The process to reform the rail system began in France in the second half of the 1990s with the creation of the company Reseau Ferré de France (RFF), responsible for administering and maintaining rail infrastructure in France. Until that time, all rail activity was carried on by a single public monopoly, Société Nationale des Chemins de Fer Français (SNCF), whose responsibilities thereafter focused on operation of the transport service. Both companies are attached to the Ministry of the Environment, Sustainable Development and Energy. As in Spain, the freight transport service was liberalised in 2005.
9. SNCF is currently structured around five business units - infrastructure maintenance and operation (SNCF Infra), urban, metropolitan and regional public transport (SNCF Proximité), high speed long distance passenger transport (SNCF Voyages), freight transport and logistics (SNCF Geodis) and the management and development of stations (Gares et connexions).
10. France has a peculiarity as regards infrastructure management, in so far as the RFF is obliged by statute to subcontract infrastructure maintenance operations to SNCF. Furthermore, SNCF manages traffic and management, in accordance with management principles defined by the RFF.
11. The regulatory authority for rail activity, the Autorité de régulation des activités ferroviaires (ARAF), is an independent administrative body responsible for ensuring equality between all actors in the rail system. Its competences include investigatory powers, power to impose penalties (it can impose penalties of up to $5 \%$ of the offender's turnover and can restrict access to infrastructure), and powers to issue supplementary regulations which enable it to particularise provisions relating to connections to the rail network, technical and administrative requirements and the terms for accessing services and use.
12. The Public Rail Safety Authority (EPSF), is another actor in the French rail system, which is attached to the Ministry of the Environment, Sustainable Development and Energy and is responsible for national rail safety. It was created in response to the need for an organisation with the necessary rail safety expertise which would be independent of the operators. It is responsible for issuing permits and, by means of audits and inspections, for ensuring compliance with the regulatory requirements to secure equal treatment for all operators.
13. To access the network, a company must have a rail company licence, issued by the Ministry of the Environment, Sustainable Development and Energy, and a rolling stock approval safety certificate (EPSF), and must previously have entered into an agreement with the infrastructure administrator and have been allocated capacity.
14. A charge has to be paid to access rail infrastructure, proposed by the Ministry with responsibility for the matter, at the proposal of the RFF.
15. In Case C-625/10 before the Court of Justice ${ }^{215}$, the European Commission brought an action against the French Republic for failure to fulfil obligations. The Advocate General found in his Opinion that France had breached article 6.3 of Directive 91/440, in so far as, in accordance with Annex II to that legislation, decision-making related to the path allocation, including both the definition and the assessment of availability and the allocation of individual train paths, can only be entrusted to entities or companies which do not at the same time provide rail transport services. In the case of France, that service is performed by the Rail Traffic Directorate (DCF), a specialised department of SNCF. The Opinion establishes that the Community Directives do not make any provision to subcontract performance of essential functions to a rail company. Moreover, a mere finding that the DCF does not have independence in legal form is sufficient to find a breach of those provisions. The second claim in the case relates to the imposition of access charges for rail infrastructure. The Advocates General's Opinion finds there to be a breach of article 11 of Directive 2001/14, in so far as there is no coherent and transparent whole forming part of an infrastructure charging system.
16. In November 2012 France announced a reorganisation of its rail system which provides, in particular, for the infrastructure manager, the RFF, to be reintegrated into the operator, SNCF.

## The United Kingdom

17. The United Kingdom was one of the European countries which pioneered liberalisation of the rail market. The process began in 1992 and was completed in 1997. Rail currently has an $11 \%$ share of inland freight transport .
18. Until the 1990s there was a single public monopoly, British Rail, which administered the infrastructure and operated the transport service. In 1992 a White Paper was published containing policies for opening the market to competition, followed in 1993 by approval of rail legislation, contained in the Railways Act. The market was opened to competition in 1995.
19. The former monopoly was divided into some hundred companies based on each activity (there are several companies for each activity) - infrastructure, passenger transport ${ }^{216}$, freight transport, infrastructure maintenance, rolling stock ${ }^{217}$ and rolling stock maintenance - , which were privatised.
20. Railtrack became the infrastructure administrator, and was initially publicly owned but was privatised in 1996. Six rail freight transport companies were created and were privatised in the period 1995-1997.
21. Dissatisfaction with quality levels and infrastructure monitoring gave rise to a change in the British market. A new not-for-profit infrastructure administrator, Network Rail, was created, which replaced Railtrack and whose profits must be reinvested in infrastructure improvements.
22. The Office of Rail Regulation (ORR) was created in 2003, replacing the Rail Regulator. This regulatory body functions as an independent body and is the economic and safety regulator for the rail sector in Great Britain. It is run by a Board appointed by the
[^81]Secretary of State for Transport. Its main function is to regulate administration of the national rail network. Its functions also include issuing rail company licences and safety certificates and granting approval of rolling stock. It has responsibility shared with the Office of Fair Trading for investigating possible infringements of the Competition Act.
23. In relation to rail sector planning, every five years the Government, through the Ministry of Transport, issues the HLOS (high level output specification), setting out the rail policy for the coming years. Once the HLOS has been issued, the ORR's work consists of confirming the funding proposed by the Government. After consulting rail operators, the Government approves a plan to be implemented subsequently by Network Rail.
24. In order to access rail infrastructure, in addition to the requirements for a licence, safety certificate and rolling stock approval, operators must enter into a track access contract with Network Rail. That contract establishes the access rights, the characteristics of the trains they will operate, the allowances and penalties for delays caused by Network Rail and the financial charges. All track access contracts automatically include a series of standards terms which are called the Network Code.

## Italy

25. Italy began the process of reforming the rail market in the mid-1990s, and the market was opened to new operators in 2001. According to 2010 data, rail has a $9.6 \%$ share of the total freight carried inside the country.
26. The first measures date back to 1998, when infrastructure administration (Rete Ferroviaria Italyna, RFI) was separated from operation of the transport service (Trenitalia). As in the German case, Italy adopted a vertical integration model in which both agents are part of a public holding company, Ferrovie dello Stato (FS).
27. As well as those two companies, the following other rail market-related companies belong to FS: FS Logística, Grandi Stazioni (the company which manages the 13 main Italian railway stations, $59.99 \%$ of which is State owned and the remainder privately owned) and Centostazioni (the company which manages and refurbishes the 103 medium-sized stations, with the same shareholder structure as Grandi Stazioni) ${ }^{218}$.
28. Until 2012, the rail regulator was the "Ufficio Regolazione Servizi Ferroviari", a body attached to the Ministry of Infrastructure and Transport. However, March of that year saw creation of the Transport Regulation Authority, a new regulator which replaced the previous regulator and is characterised by being more independent of the Italian Government.
29. Another actor is involved in the market, the National Rail Safety Agency (ANSF), which has operated since 2008. The agency came about to bring together in a single body all the matters relating to rail safety which had, until then, been separate and under the control of different bodies.
30. Various actors are involved in the procedure for accessing the market for operation of the service: the Ministry of Economic Development Infrastructure and Transport (with

[^82]responsibility for issuing rail company licences) and the aforementioned ANSF, responsible for issuing safety certificates and approving rolling stock (until 2008, the RFI was the body competent to issue those documents).
31. The European Commission likewise brought an action against Italy for failure to fulfil its obligation to transpose the first railway package, taking the view that the existing holding structure does not have sufficient independence between the infrastructure administrator and operation of the transport service. Italy was a party to the action brought by the Commission against Germany on the same grounds. In Case C-556/10, the CJEU found that the holding type structure does ensure the independence required by the Community rules.

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[^0]:    1 The General Interest Rail Network (RFIG). The autonomous communities own the networks which run entirely within their territory and do not form part of the RFIG, although practically all freight is carried on the RFIG.
    ${ }^{2}$ Not counting RENFE-Operadora's monopoly position on the former FEVE network, which has formed part of RENFE-Operadora for the purposes of service provision from 1.01.2013.
    ${ }^{3}$ The Infrastructure, Transport and Housing Plan (Plan de Infraestructuras, Transporte y Vivienda or PITVI), presented on 26 September 2012, envisages investment equivalent to between $0.89 \%$ and $0.94 \%$ of Spanish GDP, depending on how Spain's macroeconomy evolves up to 2024. Approximately $90 \%$ of those resources are intended for transport policies (the remaining $10 \%$ corresponds to housing policies).

[^1]:    4 The separation of accounts is therefore mandatory, whilst institutional separation is voluntary.

[^2]:    5 The body competent to grant licences is left to be decided by the Member States.
    6 Those requirements are good repute, financial fitness and professional competence.
    7 The "essential functions" are: path allocation, decisions on charges, granting licences and safety certificates and establishing safety standards and rules.

[^3]:    8 Article 29.1 of the LSF stipulates the contents and characteristics of the network statement and how it is to be prepared and published. It provides that this document "will set out the characteristics of the infrastructure made available to the rail companies and provide information about the capacity of each section of the network and about the terms for its access. It will also set out the general standards, time limits, procedures and criteria governing the relationship between the allocation of capacity and the charges and charging principles to be applied to the various services provided by the rail companies. Lastly, it will contain any information which may be necessary in order to apply for infrastructure capacity."

[^4]:    ${ }^{9}$ It was approved in Regulation (EC) No 881/2004 of the European Parliament and of the Council.

[^5]:    ${ }^{10}$ It therefore reaffirms the infrastructure administrator's power to determine charges already contained in article 4.1 of Directive 2001/14/EC. It is worth remembering that in Spain article 77.1 of the LSF gives power to establish the amount of charges to the Ministry of Development. In its report of 6 February 2012 the CRF draws attention to this discrepancy in the legislation.

[^6]:    ${ }^{11}$ Article 56(12) of the new Directive provides that: "the regulatory body shall have the power to carry out audits or initiate external audits with infrastructure managers, operators of service facilities and, where relevant, railway undertakings, to verify compliance with accounting separation provisions".

[^7]:    12 However, it is envisaged that there may be vertically integrated undertakings, provided the independence of the infrastructure manager is ensured by means of mechanisms guaranteeing its legal, financial and operating separation. A verification clause is therefore established, so that if the Commission does not find that all the safeguards to ensure equality of opportunity in practice have been put in place, it will be able to prevent those companies from forming part of a vertically integrated structure operating in other Member States.
    13 Its Statute was approved by Royal Decree 613/1997.

[^8]:    14 The RFIG, formerly the Integrated National Network (Red Nacional Integrada), is defined in article 4 of the LSF as the rail infrastructure essential to ensuring a common rail transport system throughout State territory, or which needs to be managed jointly in order for the common transport system to function properly, such as that associated with the international routes, that connecting the various autonomous communities and the connections and accesses of that infrastructure to the main centres of population and transport hubs or to essential facilities for the economy or national defence. The scope of application of the LSF is confined exclusively to the RFIG, whose administration is the responsibility of ADIF and which since 1 January 2013 has also included the metric gauge network previously belonging to FEVE, and to the relevant port authorities at the general interest ports.
    15 There are three different track gauges in Spain: i) Iberian gauge ( 1668 mm ), which includes the conventional network carrying both freight and passenger transport; ii) UIC gauge ( 1435 mm ), which corresponds essentially to the high speed lines, reserved practically exclusively for passenger transport; iii) metric gauge ( 1000 mm ), managed by FEVE until 1 January 2013 and found essentially in the autonomous communities in the north of Spain.

[^9]:    ${ }^{16}$ Under article 3 of the LSF, "rail infrastructure shall mean all the elements comprising the main line, sidings and branch lines, with the exception of tracks within rolling stock repair workshops and locomotive depots or sheds. Those elements include land, stations, freight terminals, engineering structures, level crossings, facilities relating to safety, telecommunications, electrification, signalling and lighting and to transforming and carrying electricity, the associated buildings and any other elements determined by regulation".
    ${ }^{17}$ The network statement establishes the basic characteristics of the RFIG infrastructure and reports on the capacity of each section and the terms for access. It also gives details of the general provisions relating to time limits, tariffs and rail services.

[^10]:    18 The Spanish port system comprises 46 general interest ports, managed by 28 port authorities, which are coordinated and whose efficiency is monitored by the public body Puertos del Estado, attached to the Ministry of Development and tasked with implementing the Government's ports policy.
    19 TP Ferro is the company holding the concession for the Figueras-Perpignan section, owned $50 \%$ by the French company Eiffage and $50 \%$ by the Spanish company ACS.

[^11]:    ${ }^{20}$ In relation to charges, those principles are set out in Order FOM/898/2005 of 8 April, as amended by Order FOM/3852/2007 of 20 December and Order FOM/2336/2012.
    21 Infrastructure capacity means the number of train slots which can be made available on a stretch of rail infrastructure in a given period of time in accordance with the type of traffic (article 47 RSF).
    ${ }^{22}$ These are the services which the rail companies are entitled to receive under article 5 of Directive 2001/14/EC, which are set out in Annex 2 to that Directive.

[^12]:    ${ }^{23}$ This charge only applies to passenger trains.

[^13]:    ${ }^{24}$ The additional and complementary services are set out and described annually in ADIF's network statement.

[^14]:    ${ }^{25}$ Article 56.2 of the RSF provides that "the Ministry of Development, at the proposal of ADIF, will within one year from entry into force of the Rules, establish the requirements for obtaining the qualification permitting the holder to provide additional, complementary and ancillary services and the terms on which they are to be provided in order to ensure safety and appropriate use of the rail infrastructure."
    ${ }^{26}$ The Infrastructure, Transport and Housing Plan (2012-2024), approved by the Ministry of Development in September 2012, involves a new strategic planning framework for transport infrastructure.
    ${ }^{27}$ The tariffs are approved by the Ministry of Development, on a (non-binding) proposal by ADIF.
    28 Article 40.3.a of the LSF provides that "the complementary services offered from time to time by the rail infrastructure administrator, by means of the network statement or an equivalent document, must be provided when requested by the rail companies or other applicants".
    29
    Self provision takes place at a particular rail facility at all times on a non-exclusive basis, that is to say, the company which provides the service to itself has no exclusive right to use the facilities, for particular traffic in a particular train slot. The service may be performed directly by a company using its own means and resources, or under a contract with third parties, which must have the relevant qualifying permit granted by ADIF.

[^15]:    ${ }^{30}$ The charges for the complementary services provided in zones administered by ADIF are approved by the Ministry of Development, irrespective of who provides them, on a proposal by ADIF. If the services are provided in the areas of rail service zones not administered by ADIF, the charges shall be freely set by the service provider, which must notify them to the Ministry of Development.
    ${ }^{31}$ CRF Resolution of 25 September 2012 in proceedings 2012/002 commenced ex officio to analyse rail terminals and additional, complementary and ancillary services.
    32 The first railway package provided for the opening of the freight transport market, establishing two deadlines - 2003 for the 50000 km of track comprising the Trans-European Rail Freight Network and 2008 for the whole of the European rail network. In the case of Spain, the deadline initially set for the LSF to come into force was six months after its publication in the BOE (Official State Gazette), but Royal Decree Law 1/2004 of 7 May extended the period for the LSF to come into force until 31 December 2004, with the effect that the national freight transport market was liberalised from 1 January 2005.

[^16]:    ${ }^{33}$ Directive 2007/58/EC set 1 January 2010 as the deadline for liberalising international rail passenger transport. At national level, Royal Decree Law 22/2012 set 31 July 2013 as the date for liberalising rail passenger transport in Spain. Royal Decree Law 4/2013 established the arrangements for free competition in rail passenger transport intended primarily for tourism. For public interest services, the Council of Ministers is charged with setting the terms for tendering procedures. For all other services, the Council of Ministers will determine the number of qualifying permits to be granted for each line or series of lines.
    ${ }^{34}$ Regulated by Royal Decree 810/2007 and Order FOM/2257/2010, from which time the Ministry of Development has taken over competence in that regard from ADIF.
    ${ }^{35}$ The approval of rolling stock is regulated by Order FOM/233/2006. Royal Decree 641/2011 governs vehicle maintenance.
    ${ }^{36}$ There is currently a transitional regime in which Order FOM/2520/2006 of 27 July is in force and is gradually being replaced by the terms of the new Order FOM/2872/2010 of 5 November.
    ${ }^{37}$ The LSF establishes a maximum period of three months for determining the application. The cost of issuing the licence is set annually in the General Budget Acts (Leyes de Presupuestos Generales) and in 2012 was $11.041,89$ euros. Where a licence is extended or revised, a new fee, currently $5.520,94$ euros, is payable.
    ${ }^{38}$ Paragraph 4 of Additional Provision Three of the LSF provides that the public enterprise RENFEOperadora must, within six months from that Act coming into force, comply with the requirements under article 45 of the LSF, with the exception of article 45.1.a as regards the requirement to be a public limited company, and applying for the relevant licence.
    ${ }^{39}$ That requirement is regarded as satisfied where the company demonstrates that it can meet its existing and potential liabilities for 12 months from the time it applies for the licence.

[^17]:    44 The approval fee for locomotives is $€ 1800$; for self propelled units, $€ 3000$; for cars, $€ 100$; for wagons $€ 100$; and for auxiliary rolling stock $€ 100$. The amount is updated annually.
    45 "The authorisation to place a series of rail vehicles in service shall remain effective so long as any physical or technical characteristics relating to safety, reliability, technical compatibility, health, the environment and, where applicable, interoperability which define that series are not modified.
    46 There are two different types of licence, A and B, depending on the kind of vehicle for which the drivers are qualified.
    ${ }^{47}$ Article 33 of Order FOM/2520/2006 and article 38 of Order FOM/2872/2010.
    48 Article 37.2.a) of Order FOM/2520/2006.

[^18]:    ${ }^{49}$ For approval to be granted it must be shown that the centre satisfies the following requirements: i) it is or forms part of a public enterprise or commercial company; ii) technical capacity and professional competence; iii) financial capacity; iv) third party liability cover.

[^19]:    ${ }^{50}$ Inspection and checking of all wagon components.
    ${ }^{51}$ This range of tasks results from a review of the regulations contained in article 82-84 of the LSF, which was completed by the LES. In 2010, the European Commission brought an action against Spain for failure to fulfil its obligations to transpose the first Community Directive (Case C-483/10), part of which concerns an alleged lack of independence of the CRF from the Ministry of Development, from ADIF and from RENFE-Operadora, and the lack of sufficient structure and resources to perform its supervisory function. The LES also provides that resolutions of the CRF exhaust the administrative remedies and it abolished the requirement that its members must be public officials.

[^20]:    52 Judgment disposing of the actions alleging unconstitutionality brought against Act 39/2003 by the autonomous communities of Extremadura, Catalonia, Asturias, Aragón and Castilla la Mancha.

[^21]:    ${ }^{53}$ A public body attached to the Department of Territory and Sustainability of the Government of Catalonia (Generalitat de Catalunya), set up by the Rail Act $4 / 2006$ of 31 March.
    ${ }^{54}$ Basque Country Act $6 / 2004$ of 21 May on the Basque Rail Network - Euskal-Trenbide Sarea. It created this management entity, whose principles of operation, regulated by article 4, include promoting the conditions for competition in the provision of rail services.
    55 A public law body set up by Act $4 / 1986$ of 10 November.
    ${ }^{56}$ Created by Act $22 / 1999$ of 21 December for execution of the collective public transport infrastructure in the Community of Madrid. Act $4 / 2011$ of 28 July on the winding up of MINTRA, abolished that body.
    ${ }^{57}$ Created by virtue of Act 2/2003 of 12 May regulating urban and metropolitan passenger transport in Andalusia. That body was wound up in 2010, and its role was taken over by the Public Works Agency (Agencia de Obra Pública) of the Government of Andalusia (Junta de Andalusia), set up by Decree Law 5/2010 of 27 July approving urgent measures for reorganisation of the public sector.

[^22]:    58 European Commission Decisions in cases COMP/M. 2905 Deutsche Bahn/Stinnes, COMP/M. 4746 Deutsche Bahn / English Welsh \& Scottish Railway Holdings (EWS), and COMP/M. 5096 RCA / MAV CARGO.
    ${ }^{59}$ Decisions of the European Commission in cases COMP/M. 2632 Deutsche Bahn/Stinnes, COMP/M.4294, Arcelor/SNCFL/CFL, and COMP/M. 3150 SNCF/Trenitalia.
    ${ }^{60}$ Decisions of the European Commission in cases COMP/M. 2905 Deutsche Bahn/Stinnes, COMP/M. 5450 KÜHNE/HGV/TUI/HAPAG-LLOYD, and COMP/M. 4439 Ryanair / Aer Lingus.
    ${ }^{61}$ In a number of specific cases the European Commission has held that different modes of land transport belong to a particular product market. Accordingly, for example, in the SNCF/Trenitalia case cited, it was held that all means of land freight transport which crossed the Alps between France and Italy were mutually substitutable on the demand side. In decisions looking more globally at the issue of substitutability on the demand side, however, the Commission has found that the other modes of land transport are not substitutable with rail.
    ${ }^{62}$ The Deutsche Bahn/English Welsh \& Scottish Railway Holdings (EWS) case referred to above.
    63 Accordingly, in the RCA / MAV CARGO case referred to, the European Commission stated that a phenomenon known as the "cellophane fallacy" could be occurring: the reason the notifying parties perceived a certain substitutability between road and rail freight transport services was the lack of competition between rail operators, which allowed them to set their prices higher than the hypothetical competitive prices for rail, limited only by the prices of road transport. The Commission therefore found that liberalisation of the rail transport service was likely to bring rail prices closer to their competitive level, increasing the gap between rail and road and leading to increasingly less substitutability between the train and road. Comparing the price levels between routes with and without competition, the Commission found that introducing competition could lead to price

[^23]:    reductions of up to $40-50 \%$ on rail transport services or quality improvements, such as greater punctuality. COMP/M. 4746 Deutsche Bahn/English Welsh \& Scottish Railway Holdings (EWS).
    ${ }^{65}$ Decisions of the European Commission in Cases COMP/M. 5096 RCA / MAV CARGO and COMP/M. 4746 Deutsche Bahn/English Welsh \& Scottish Railway Holdings (EWS).
    ${ }^{66}$ Case COMP/ M. 4746 Deutsche Bahn/English Welsh \& Scottish Railway Holdings (EWS).
    ${ }^{67}$ Case COMP/ M. 4746 Deutsche Bahn/English Welsh \& Scottish Railway Holdings (EWS).
    ${ }^{68}$ Definition laid down in Antitrust Case 37685 on the traction market. Case COMP/M.6150-VEOLIA TRANSPORT/TRENITALY/JV and COMP/M.5579 - TLP/ ERMEWA.

[^24]:    ${ }^{69}$ Antitrust case 37685.
    ${ }^{70}$ For example, see Case COMP M. 4439 Ryanair/Aer Lingus, concerning passenger traffic.
    71 For example, [...]
    ${ }^{72}$ In the SNCF/Trenitalia case cited above, for example, the international border crossing between Lyon and Turin through the Alps at Fréjus/Mont Cenis was defined as a relevant market, because all transport between north-eastern Europe and north-eastern Italy had to cross at that point.
    ${ }^{73}$ Joined Cases T-374/94, T-375/94 and T-388/94, European Night Services Ltd (ENS), Eurostar (UK) Ltd, formerly European Passenger Services Ltd (EPS), Union internationale des chemis de fer (UIC), NV Nederlandse Spoorwegen (NS) and Société nationale des chemins de fer françaises (SNCF) v Commission of the European Communities, [1998], ECR II-3141, "ENS judgment", paragraph 220.
    ${ }^{74}$ See, for example, Decision of the European Commission in Case COMP/M. 6150 Veolia Transport/Trenitalia/JV.

[^25]:    75 In Case T-229/94, Deutsche Bahn AG v Commission, the General Court of the EU held that "the rail services market constitutes a sub-market distinct from the rail transport market in general. It offers a specific range of services, in particular the provision of locomotives, traction and access to the railway infrastructure which, while provided according to the demands of the railway transport operators, is in no way interchangeable or in competition with their services. The distinct character of railway services also derives from the demand and supply factors that are specific to those services. It is not possible for transport operators to provide their services if they do not have railway services available to them."
    ${ }^{76}$ The Intermodal Land and Maritime Transport Observatory (Observatorio del transporte intermodal terrestre y marítimo) has carried out a more detailed analysis of a rail company's costs, distinguishing between electric locomotives and diesel-electric locomotives. Those estimates must in any event be used with great caution, since the "average" cost structure of a rail company may be very different from the actual cost structure of each market operator.
    ${ }^{77}$ Since 31 December 2012, ADIF has taken over responsibility for administering the former FEVE network ( 1269 km of metric gauge track). The figures given in this paragraph include the FEVE network, but in the report as a whole some data are available only for the original ADIF network and do not include the tracks transferred from FEVE.
    ${ }^{78}$ The Iberian gauge, characteristic of tracks in Spain and Portugal, is 1668 mm .
    ${ }^{79}$ The standard gauge, which predominates on central European lines, is 1435 mm .
    ${ }^{80}$ The data indicated in this paragraph refer exclusively to ADIF's original network, and do not include the lines transferred from FEVE.

[^26]:    81 Source: International Union of Railways (2010), International Railway Statistics.

[^27]:    82 The same gauge as in Portugal and Argentina.

[^28]:    83 With the exception of the Madrid-Valencia and Barcelona-French border stretches where the trains can reach 750 m .
    ${ }^{84}$ In the United States, trains reach lengths of 2 km or more.
    85 The high speed lines in Spain have a 25000 volt alternating current electricity supply.
    ${ }^{86}$ Additional Provision Six of Order FOM/233/2006 provides that foreign vehicles complying with the rules of the Convention concerning International Carriage by Rail (COTIF) can run on the RFIG "subject to any conditions which the Rail Infrastructure Administrator may impose, in accordance with the provisions in force relating to vehicle movements and rail safety".

[^29]:    ${ }^{87}$ The clearance gauge is the series of maximum dimensions, both for height and width (the maximum curve) for vehicles travelling on a rail network.

[^30]:    ${ }^{88}$ Rail freight transport service in which the load unit is a wagon, even if the wagon capacity is not fully used. Full wagonload transport is particularly suited to carrying heavy or high volume goods long distances.
    89 An integrated freight transport system, with goods grouped in cargo units (containers), which uses more than one mode of transport (maritime, rail, road or air) between the point of origin and the point of destination with a single transport document.

[^31]:    ${ }^{90}$ All traffic at the Barcelona-Granollers terminal is international.

[^32]:    91 Salient amongst "Other" modes is the carriage of dry bulk by conveyor belt (Intermodal Land and Maritime Transport Observatory. Final Document (Documento final). 2011).

[^33]:    92 Acciona Rail carried goods by rail between 2007 and 2010. However, it had no activity in 2011 [...].
    93 The information about companies comes from their websites.
    94 There are also three companies (Conte Rail, Pecovasa and Tramesa) which have qualified to be allocated capacity under the LSF (article 31 LSF ) and the RSF (articles 79 to 85). The figure of an applicant (carrier, freight forwarder, combined transport operators or a public administration with powers to provide transport services) qualifies to apply, exclusively, for the necessary capacity to operate the rail transport service in which it has an interest because it is directly linked to its activity.

[^34]:    95 Including transport and traction services.

[^35]:    96 Acciona did not carry any freight by rail in 2011.
    ${ }^{97}$ The customary measurements in the rail sector are tonne-kilometres or train-kilometres.

[^36]:    ${ }^{98}$ The data for Tracción Rail have been estimated by multiplying its tonnage carried figure by the average number of kilometres travelled by the private companies in 2010 according to data in the 2010 Report of the Rail Observatory (Informe del Observatorio del Ferrocarril) (Observatorio del Ferrocarril).
    ${ }^{99}$ Acciona did not carry freight by rail in 2011.

[^37]:    ${ }^{100}$ According to information supplied by TP Ferro, the only rail companies which use that company's facilities are RENFE-Operadora and the French company SNCF.
    ${ }^{101}$ According to the analysis prepared on the basis of data supplied by ADIF.

[^38]:    ${ }^{102}$ Because, in view of the long writing off periods for rolling stock and the shorter duration of contracts for rail activity, it prevents operators from having to bear the cost of acquiring rolling stock if ultimately their activity is less than planned.
    ${ }^{103}$ Cases COMP/M.5263 - DEUTSCHE BANK LONDON / LLOYDS TSB BANK / ANTIN INFRASTRUCTURE PARTNERS (BNP Paribas) / PORTERBROOK LEASING, COMP/M. 5439 OP TRUST / DEUTSCHE BANK LONDON / LLOYDS TSB BANK / BNP PARIBAS / PORTERBROOK LEASING, COMP/M. 3090 - Volkswagen / Offset / Crescent / LeasePlan /JV, COMP/M. 4844 - Fortis/ABN Amro Assets, and COMP/M. 669 Charterhouse / Porterbrook Leasing Company.
    ${ }^{104}$ On occasion this can occur "mid-franchise", where there is a "cascade" of replacement rolling stock from one franchise to another.
    ${ }^{105}$ On the demand side, those differences lie in the ownership of the rolling stock. In the case of finance leasing, the ownership and risk in the asset is transferred to the lease-taker, and the rolling stock will therefore appear in the lease-taker's balance sheet under hire purchase. In the case of operating leases, on the other hand, the risk and benefit vest in the leasing company. See Cases COMP/M.5263-DEUTSCHE BANK LONDON / LLOYDS TSB BANK / ANTIN INFRASTRUCTURE PARTNERS (BNP Paribas) / PORTERBROOK

[^39]:    Source: Compiled by the CNC using data provided by the rail companies

[^40]:    ${ }^{109}$ The Intermodal Land and Maritime Transport Observatory finds that between $15 \%$ and $21 \%$ of the cost of operating a locomotive relates to maintenance and repair.
    ${ }^{110}$ Cases COMP/ M. 5579 TLP/Ermewa, COMP M. 221 ABB / BREL, COMP M.2139, Bombardier/ADtranz.
    ${ }^{111}$ Case M. 542 - BABCOCK/SIEMENS/BS RAILCARE.
    ${ }^{112}$ Case COMP/M. 2139 - Bombardier/ADtranz.
    ${ }^{113}$ Construcciones y Auxiliar de Ferrocarriles (CAF): a company engaged in the design, manufacture, maintenance and supply of equipment and components for rail systems.

[^41]:    ${ }^{114}$ Bombardier Transportation: a company belonging to the Canadian company Bombardier Inc. It manufactures, assembles and maintains propulsion equipment for all kinds of trains. It also has a rail signalling division responsible for installing electronic interlocking.
    ${ }^{115}$ A locomotive and train design, construction and maintenance company.
    ${ }^{116}$ The Plan to Restructure and Rationalise the State Public Business and Foundations Sector (Plan de reestructuración y racionalización del Sector Público Empresarial y Fundacional Estatal), approved by the Council of Ministers on 16 March 2012, provides for disinvestment from this company.
    ${ }^{117}$ A company engaged in the design, engineering and construction of all kinds of rail rolling stock and systems. Traction equipment (both diesel and electric). Its activity also includes the maintenance, refurbishment and modernisation of all forms of rail rolling stock.
    ${ }^{118}$ Through the Siemens Mobility Rail section, this company designs, manufactures and maintains rail rolling stock.
    ${ }^{119}$ The Plan to restructure and rationalise the State public business and foundations sector, approved by the Council of Ministers on 16 March 2012, provides for disinvestment from this company. In March 2013 the Consultative Council on Privatisations (Consejo Consultivo de privatizaciones) issued a report favourable to the sale of RENFE-Operadora's holding in Tarvia.
    ${ }^{120}$ Talgo designs and manufactures rolling stock, maintenance equipment and various gauge changing applications. It also provides comprehensive services tailored to each customer.

[^42]:    ${ }^{121}$ Besides which, Euskotren's maintenance work is confined to its own trains, which operate on the Basque regional track rather than the RFIG.

[^43]:    ${ }^{122}$ Information from replies to the CNC's requests for information from operators.

[^44]:    ${ }^{123}$ Combining services provided to both passenger and freight trains.
    ${ }^{124}$ Cases M.1165-LUFTHANSA/MENZIES/LCC and M. 5480 - DB/ PCC Logistics.
    ${ }^{125}$ Logistics facilities are defined as cargo terminals engaged exclusively in providing logistics services relating to the handling and warehousing of goods, adding value to the transport chain. Principal logistics facilities are those of greatest importance.
    ${ }^{126}$ No data are given for additional services, because they are provided exclusively by ADIF, nor for ancillary services, because no data are available.
    ${ }^{127}$ In this case, in relation to how they are managed, two types of complementary services have been distinguished - shunting (relating to trains) and ITU handling (relating to cargo).

[^45]:    ${ }^{128}$ Complementary shunting services include: shunting for delivery and/or collection at other facilities; shunting at facilities without shunting vehicles; formation/selection shunting without a shunting vehicle; shunting at facilities with shunting vehicles; and formation/selection shunting with a shunting vehicle.
    ${ }^{129}$ International transport unit (ITU) handling. This consists of loading/unloading ITUs within the rail transport mode.
    ${ }^{130}$ Valladolid, Zafra, Fuencarral, Cerronegro, Almería, Cartagena, Valencia San Isidre, Valencia Filipinas, Huesca and Lérida.
    ${ }^{131}$ To be eligible for self provision, companies wishing to provide their own services must indicate the proposed activity, indicating the specific complementary and/or ancillary services they intend to perform.

[^46]:    ${ }^{132}$ In addition to the above agreements, in April 2013 the Minister for Development authorised signature of agreements governing the rail connection from the ports of Bilbao, Pasajes, Santander and Seville with the rest of the RFIG.

[^47]:    ${ }^{133}$ This, furthermore, is nowadays only used very exceptionally for freight transport.

[^48]:    ${ }^{134}$ In its economic evaluation of the Strategic Infrastructure and Transport Plan (Plan Estratégico de Infraestructuras y Transporte or PEIT), the Ministry of Development 2011 Statistical Yearbook (Anuario Estadístico) estimates investment of 62785 million euros in road transport.

[^49]:    135 "In the case of railway networks, incumbent operators often have a de facto monopoly of the national market and this lack of competition is one of the reasons for the low quality and efficiency of services. Countries that have gone furthest in opening up the rail market have shown improvement in the quality of services and a rising market share of rail transport. The total market share of all but the biggest railway undertakings, for both freight and passenger transport (2010. source: DG MOVE) can be considered an indicator of competition in the rail sector. A low number of competitors, however, does not necessarily imply the existence of barriers to entry, but may also reflect market characteristics, for example the small size of the market." (European Commission, DG Mobility and Transport. Europe 2020 strategy: Network industries transport.)
    ${ }^{136}$ The data for RENFE-Operadora also include those for the former FEVE.
    ${ }^{137}$ Those data have been obtained on the basis of the operators with the most freight traffic (tkm), according to data from the International Union of Railways (2010), International Railway Statistics.

[^50]:    ${ }^{138}$ As part of the liberalisation process in the United Kingdom, the incumbent operator was split into various transport operators. There are therefore no data available because there is no incumbent operator.
    ${ }^{139}$ Includes passenger and freight train drivers.

[^51]:    ${ }^{140}$ Includes passenger and freight train drivers.

[^52]:    ${ }^{141}$ Because no data were available on the income of CFL Cargo de Luxemburgo and CP Carga de Portugal, the data for CFL and CP respectively have been analysed.

[^53]:    ${ }^{142}$ Includes passenger and freight locomotives.

[^54]:    ${ }^{143}$ Includes passengers and freight.
    ${ }^{144}$ No data are available for the Italian company FS.

[^55]:    ${ }^{145}$ Final Document, 3 June 2011.
    ${ }^{146}$ Ministry of Development, Strategic Plan to Stimulate Freight Transport in Spain (PEITFM, 2010), and Infrastructure, Transport and Housing Plan (PITVI, 2012).
    ${ }^{147}$ CRF (2011), CRF Annual Report and Report on the rail market sector in Spain (Memoria del CRF e informe sobre el mercado y el sector ferroviario en España). The CRF refers to all those factors as barriers which

[^56]:    impede greater development of rail freight transport: "the deficiencies in technical parameters on the conventional networks, such as the maximum length of 450 m , limitations on axle loads (maximum of 22.5 tonnes per axle), excessive gradients at many points on the network, different gauges ( $1000 \mathrm{~mm}, 1435 \mathrm{~mm}$ and 1668 mm ), different clearance gauges and different voltages".
    ${ }^{148}$ Consultative Council on Privatisations (2011), Report on competition in rail transport in Spain (Informe sobre la competencia en el transporte ferroviario en España).
    ${ }^{149}$ With the exception of the TP Ferro line. It must also be noted that the regulations do not expressly prohibit freight trains from running on UIC gauge high speed tracks. Technically, whether freight can be carried on those tracks depends on the maximum weight they can support.
    ${ }^{150}$ Strength-Weaknesses-Opportunities-Threats.
    ${ }^{151}$ By way of comparison, the average speed of passenger trains on the RFIG administered by ADIF in 2010 was 73.78 km/h. Source: Report of the Rail Observatory (2010).

[^57]:    ${ }^{152}$ PricewaterhouseCoopers (2011), Tomando la vía hacia un transporte de mercancías inteligente (On track for intelligent freight transport).
    ${ }^{153}$ CRF (2011), CRF Annual Report and Report on the rail market sector in Spain.
    ${ }^{154}$ Spanish Confederation of Business Organisations (Confederación Española de Organizaciones Empresariales) (CEOE, 2010), La liberalización del ferrocarril (Rail Liberalisation).

[^58]:    ${ }^{155}$ PEITFM (2010).
    ${ }^{156}$ Ministry of Development (2011).

[^59]:    157 Informe previo Feria Transport Logistic, Munich (Preliminary report Transport Logistics trade fair, Munich). Economic and Commercial Office of the Spanish Embassy in Berlin. 2011.
    ${ }^{158}$ Ministry of Development (2011).
    ${ }^{159}$ The Ministry of Development also makes this finding in the PEITFM (2010), in so far it refers to electrification of existing lines on the line infrastructure and port access amongst the main measures to improve rail infrastructure.
    ${ }^{160}$ According to the available information in the most recent Annual Reports published by Puertos del Estado for 2010, the ports of Almería, Motril and Melilla have no rail access, but their inclusion in the Mediterranean Corridor has speeded up implementation of plans for access to be put in place. The Port of Ceuta has no rail connection with the hinterland. At the Port of Ferrol there is no rail access to the outer harbour. The rail access to the Port of Seville has already been approved and the tendering procedure has been announced for rail access to the Port of Barcelona.

[^60]:    ${ }^{161}$ CRF Resolution of 25 September 2012, on Proceedings 2012/002 on rail terminals and additional, complementary and ancillary services.
    ${ }^{162}$ Ministry of Development (2011).
    ${ }^{163}$ Rail Regulation Committee Resolution of 25 September 2012, on Proceedings 2012/002 opened ex officio to analyse rail terminals and additional, complementary and ancillary services.

[^61]:    ${ }^{164}$ CRF, Resolution of 25 September 2012.

[^62]:    ${ }^{165}$ Regulation 913/2010 establishes a number of freight corridors at European level. The following lines have been designated in Spain: in Corridor 4, Madrid-Medina del Campo/ Bilbao/San Sebastián-Irún; and in Corridor 6, Almería-Valencia/Madrid-Zaragoza/Barcelona.

[^63]:    ${ }^{166}$ This would apply to an operator which only used specific lines and, therefore, wished to reduce administrative costs.
    ${ }^{167}$ One operator has stated, for example, that "without traction we were not permitted to obtain a safety certificate".
    ${ }^{168}$ According to article 58 of the RSF, "traction is understood to be provided where the undertaking owns the means enabling traction or where it has access to those means on a permanent basis in any manner accepted in law under which they are fully available throughout the period during which the service is provided".
    ${ }^{169}$ One manufacturer has stated that "vehicles are designed and built in appreciably shorter times than those necessary to complete the approval process".

[^64]:    ${ }^{170}$ Enactment of Order FOM/233/2006 entailed abandoning a "one-stop shop" model (the former RENFE) for a model involving ADIF, the Ministry of Development and the certification body.
    ${ }^{171}$ The approval procedure involves obtaining three different certificates: the validation of the rail vehicles, the authorisation to place in service and the vehicle movement authorisation, issued by three different authorities - the certification bodies, the Ministry of Development and ADIF respectively, which check compliance with the Technical Specifications for Interoperability (TSIs) and approve the technical specifications for approval.
    ${ }^{172}$ In order to drive a freight train the driver must have a licence to drive and a safety certificate for the line in question.
    ${ }^{173}$ Article 41.3 of Order FOM/2872/2010. This provision implements article 17 of Directive 2007/59/EC of the European Parliament and of the Council.

[^65]:    ${ }^{174}$ Although article 47.3 of Order FOM/2872/2010 does provide that the knowledge and experience acquired by drivers can be recognised for the purpose of obtaining a new certificate.
    ${ }^{175}$ Additional Provision Nine of Order FOM/2872/2010. That provision implements article 24 of Directive 2007/59/EC, which provides that "Member States shall ensure that the necessary measures are taken in order to ensure that investments made by a railway undertaking or an infrastructure manager for the training of a driver do not unduly benefit another railway undertaking or infrastructure manager in the case where that driver voluntarily leaves the former for the latter railway undertaking or infrastructure manager".

[^66]:    ${ }^{176}$ Current licences issued in any Member State of the EU are valid for that purpose, although in order to operate in Spain a minimum knowledge of Spanish is also required.
    ${ }^{177}$ Additional Provision Four of Order FOM/2872/2010.
    ${ }^{178}$ In particular, as indicated in section II.1, the charge for use of railway lines forming part of the RFIG includes four types of charge: access charge, charge for reserving capacity and vehicle movement and traffic charges.
    ${ }^{179}$ CRF Resolution of 6 February 2012 on rail charges in Spain and their possible discriminatory effects on rail supply.

[^67]:    ${ }^{180}$ Article 11 of Directive 2001/14 provides that "Infrastructure charging schemes shall through a performance scheme encourage railway undertakings and the infrastructure manager to minimise disruption and improve the performance of the railway network. This may include penalties for actions which disrupt the operation of the network, compensation for undertakings which suffer from disruption and bonuses that reward better than planned performance".
    ${ }^{181}$ CJEU judgment of 28 February 2013. Case C-483/10.

[^68]:    ${ }^{182}$ The French Competition Authority's Decision No 12-D-25 of 18 December 2012 penalised the commission of that practice by the French incumbent (SNCF), in so far as it took the view that it had prevented the other operators on the market from using those paths and that because those paths were not available new entrants were obliged to resort to alternative solutions which increased their costs and reduced the quality of service.
    ${ }^{183}$ Additional Provision Nine of the LSF provides that RENFE-Operadora, "shall, from entry into force of the Act, be allocated all the infrastructure capacity necessary to provide the freight transport services being provided at that time by the public enterprise RENFE".

[^69]:    ${ }^{184}$ According to information supplied by Renfe-Operadora to the CNC, a total of [...] have been sold.

[^70]:    ${ }^{185}$ As indicated in section II.2, up to 2011 [...].
    ${ }^{186}$ In the United Kingdom the "ROSCOs" were created by splitting up the incumbent operator's rolling stock unit. This measure made that rolling stock available to the new operators and, in turn, the rolling stock was uncoupled from the incumbent service provider, to prevent any obstacles being set up to impede access for new operators.
    ${ }^{187}$ See section II.2.

[^71]:    ${ }^{188}$ In June 2011 the Freight and Logistics division was restructured, splitting off the marketing of rail freight transport services and transferring it to CONTREN, IRION, MULTI and PECOVASA.
    ${ }^{189}$ Since 2006, RENFE-Operadora has been preparing separate profit and loss accounts and balance sheets for each of its divisions, one of which is the freight and logistics services division. That separation was consolidated in legal terms with the restructuring of the Freight and Logistics division, on 1 June 2011, by means of which the marketing of rail freight transport services was split off and transferred to CONTREN, IRION, MULTI and PECOVASA.

[^72]:    ${ }^{190}$ The Council of Ministers meeting on 29 December 2006 approved the Programme Agreement between the General State Administration (AGE) and the public enterprise RENFE-Operadora, with a term from 1 January 2006 to 31 December 2010. That Programme Agreement established the mutual objectives, obligations and undertakings of AGE and RENFE-Operadora.
    ${ }^{191}$ The rail regulations provide that until such time as rail passenger transport is fully liberalised, which Royal Decree Law 22/2012 recently set as 31 July 2013, Renfe-Operadora will receive from the State the corresponding subsidies and compensation for providing loss-making rail transport services, embodied in the Programme Agreement to be entered into by the undertaking and the AGE.
    ${ }^{192}$ The IGAE took the view that the compensation in question should be regarded as non-specific and not capable of being allocated to any specific business unit, representing instead support for businesses to adapt to competition during the transition to liberalised passenger transport.
    ${ }^{193}$ The redundancy procedure was approved by the Directorate General for Employment (Dirección General de Trabajo) on 13 September 2005, initially valid until 31 December 2009, and there were 1758 redundancies by that date. That redundancy procedure was extended on 19 October 2009 by the Directorate General for Employment until there had been 2000 redundancies or until 31 December 2010.

[^73]:    ${ }^{194}$ RENFE-Operadora does not have a list of basic charges and discounts for each stretch of line. Those prices are published only for intermodal transport on the "Multiclient Network".
    ${ }^{195}$ In Decision No 12-D-25 of 18 December, the French Competition Authority found that the SNCF had on certain sections of line set prices below its costs in order to maintain its position and prevent its competitors from entering the market.
    ${ }^{196}$ The CRF resolution arising from RENFE-Operadora's claim against ADIF for the payment of rail traffic charges serves as an example.
    ${ }^{197}$ Royal Decree 452/2012 of 5 March.

[^74]:    ${ }^{198}$ ADIF Statute, approved by Royal Decree 2395/2004 of 30 December, as amended by Royal Decree 104/2011 of 28 January.
    ${ }^{199}$ The sheds and car parks in Annex IV. 4 to Order FOM/2909/2006.

[^75]:    ${ }^{200}$ A company in which RENFE-Operadora and Continental Rail hold shares. RENFE-Operadora's holding is $49 \%$. According to its website, "CONSTRU-RAIL is a transport operator which provides integrated logistics solutions - transport, storage and distribution - for businesses. Its main customers are the electricity companies, cement producers, construction companies, the major suppliers in the construction sector (prefabricated units, quarries and gravel pits, steel products, concrete, etc.), and the main maritime container shipping companies."
    ${ }^{201}$ Cargometro, owned by FGC (51\%), Renfe ( $25 \%$ ) and Comsa RT ( $24 \%$ ), has been in operation since the middle of 2009 and operates a freight train service between the Barcelona free zone and the Seat factory in Martorell. (Source: FFE, 5.06.2009, "Cargometro: nuevo servicio de mercancías para Seat entre Barcelona and Martorell").
    ${ }^{202}$ Owned by the company FGC as to $51 \%$, and as to the remainder by Comsa Rail Transport and Pecovasa (with Pecovasa $60 \%$ owned by RENFE-Operadora). It operates a transport service between the Seat factory at Martorell and the Port of Barcelona (source: Vía Libre-FFE, 23.01.2008, "Comienza el servicio de Autometro entre la factoría de Seat and el Port of Barcelona"),
    ${ }^{203}$ RENFE-Operadora has a $22.5 \%$ holding. Acciona Rail and Comsa are minority shareholders. Combiberia is engaged in intermodal transport (combined transport by rail and road) of all kinds of freight, nationally and internationally.
    ${ }^{204}$ Servicios Especializados de Mantenimiento, Almacenaje y Transporte (SEMAT) is a private company of national scope belonging to TRANSFESA ( $62 \%$ ) and RENFE ( $38 \%$ ) whose main activity is transporting vehicles by rail, which it does through its holding in the "Iberian Rail Pool", bulk and container freight transport - which it performs directly -, managing the Auto-Expreso vehicle transport terminals, and what is currently its main activity, managing the automobile logistics centres and last-mile vehicle distribution from those centres to the customer, generally a dealership (source: www.semat.es).
    205
    On 22 March 2012 the European Commission informed the Spanish State of its decision to withdraw part of the claim, that relating to the lack of independence of the rail regulator (Source: CRF, 2011).

[^76]:    ${ }^{206}$ According to data in the CRF Memoria de actuaciones (Report on Activities). 2011.
    ${ }^{207}$ Rail Regulation Committee Resolution of 6 February 2012 on Proceedings 2011/002 commenced ex officio to analyse rail charges in Spain and their possible discriminatory effects on the supply of rail services.

[^77]:    ${ }^{208}$ In thousand tonnes carried.

[^78]:    ${ }^{209}$ With the exception of the networks at the ports and the international gauge connection with France, ADIF administers the entire RFIG.
    ${ }^{210}$ ADIF is the only actor which provides services at practically all terminals.

[^79]:    ${ }^{211}$ In Spain, only the high speed trains run on the UIC tracks (with the exception of the TP Ferro section).

[^80]:    ${ }^{212}$ The companies Deutsche Bundesbahn, in the FRG, and Deutsche Reichsbahn, in the GDR.
    ${ }^{213}$ It was initially envisaged that $49.9 \%$ of the capital in DB ML AG would be floated on the stock market.
    214 Case C-556/10.

[^81]:    ${ }^{215}$ Still pending a ruling.
    ${ }^{216}$ Train Operating Company (TOC).
    ${ }^{217}$ Rolling Stock Operating Companies (ROSCOs).

[^82]:    ${ }^{218}$ The following companies are also part of the holding company FS: Ferservizi, the group's services company (property, administrative, installation and purchasing services); FS Sistemi Urbani, the group's urban property valuation company with no role in the rail service; Fercredit, the group's finance company; and Sita Sogin, which manages complementary or replacement services for passengers.

