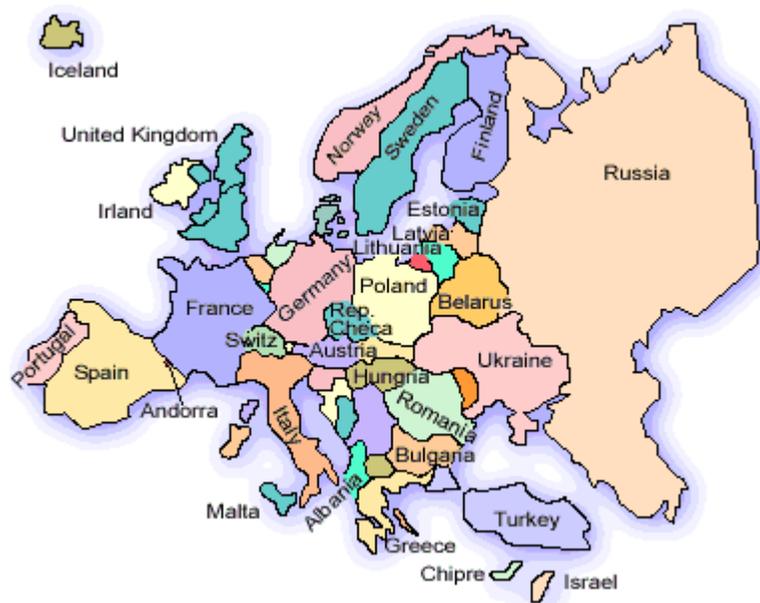


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New Railway Model and

Development of High Speed Services in Spain

Facts about Spain



- Population: 43.04 millions
- Surface area: 505,997 square Km
- Population density: 85.1 people per square Km
- GDP per capita: 20,838 € (≈28,100 \$)
- GDP growth: 3,4% annual
- Roads: 165,646 Km (Motorway: 13,156 Km)
- Railways:
 - General Interest Network: 12,991 Km (1,237 High Speed)
 - FEVE (metric gauge): 1,194 Km
 - Other regional railways: 905 Km



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Strategic Infrastructures and Transport Plan 2005-2020 (PEIT)

PEIT - SPANISH STRATEGIC INFRASTRUCTURES AND TRANSPORT PLAN 2005-2020

Main figures

- High Speed Railway Infrastructure
 - Today: 1,237 Km of High Speed Tracks.
 - In 2010: 2,230 Km of High Speed Tracks:
 - First country in the world:
 - Japan: 2,090 Km
 - France: 1,893 Km
 - In 2020: 10,000 Km of High Speed or High Performance Tracks
 - 50% of the population will have a High Speed Railway Station in their city.
 - 90% of the population will have a High Speed Railway Station within 50 km.

PEIT - SPANISH STRATEGIC INFRASTRUCTURES AND TRANSPORT PLAN 2005-2020

Budget

PEIT Budget: 241,392 million euros

Railways: 115,860 million euros (48% of total PEIT Budget).

80,500 million euros for High Speed or High Performance railway

PEIT funding sources:

Budgetary: 59.5%

Non budgetary: 40.5%

Railway: 81.4% budgetary, 18.6% non budgetary

Percentage of GDP allocated to investment in transport infrastructures:

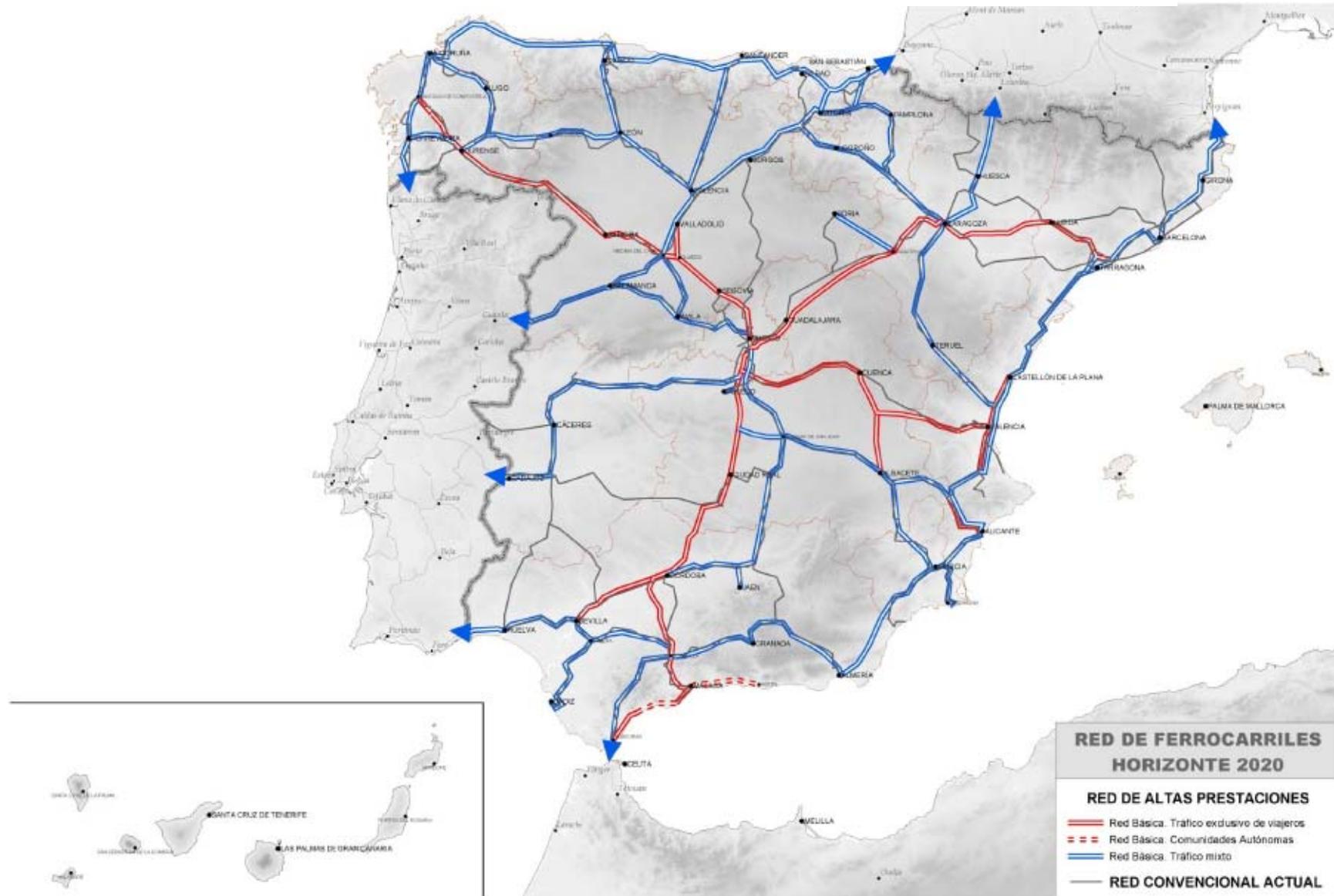
0.5-0.6% of GDP in the mid-eighties

1.7-1.8% of GDP in recent years

Forecast 2005-2020; average: 1.5%

Investment in transport infrastructures in Spain is today twice the European Union average (between 1.0% and 0.85% of GDP).

HIGH PERFORMANCE NETWORK 2020

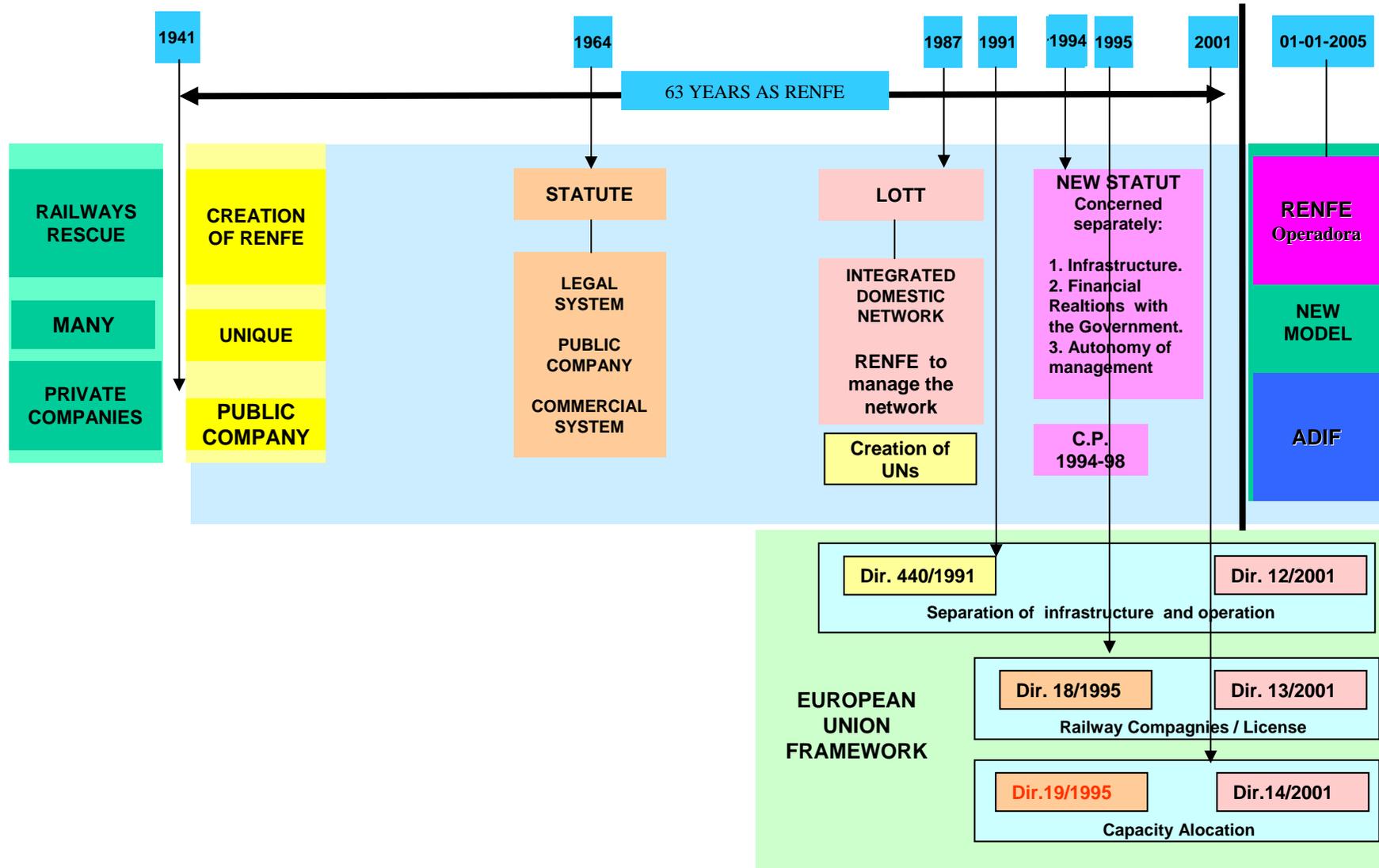




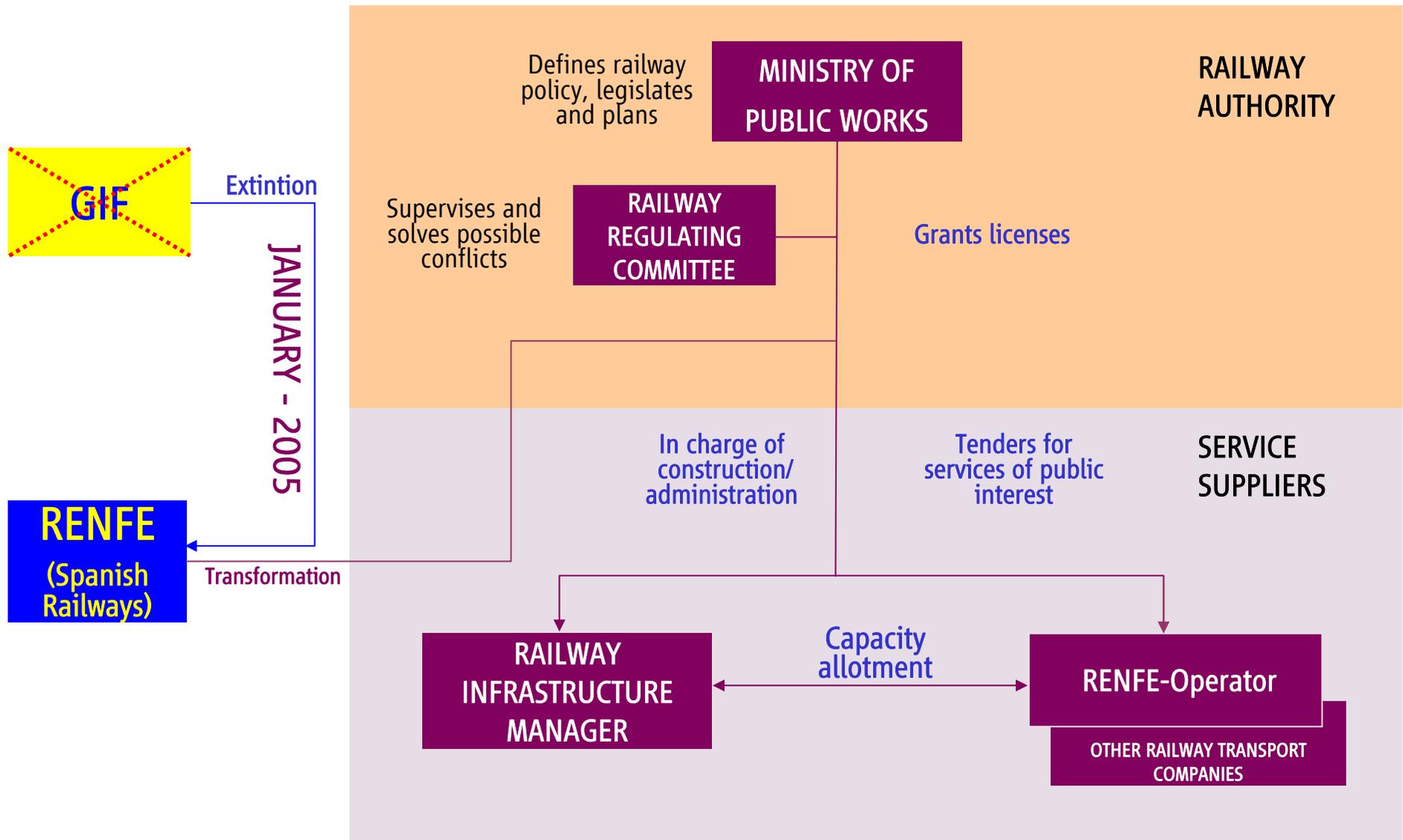
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EVOLUTION OF THE RAILWAY COMPANY IN SPAIN

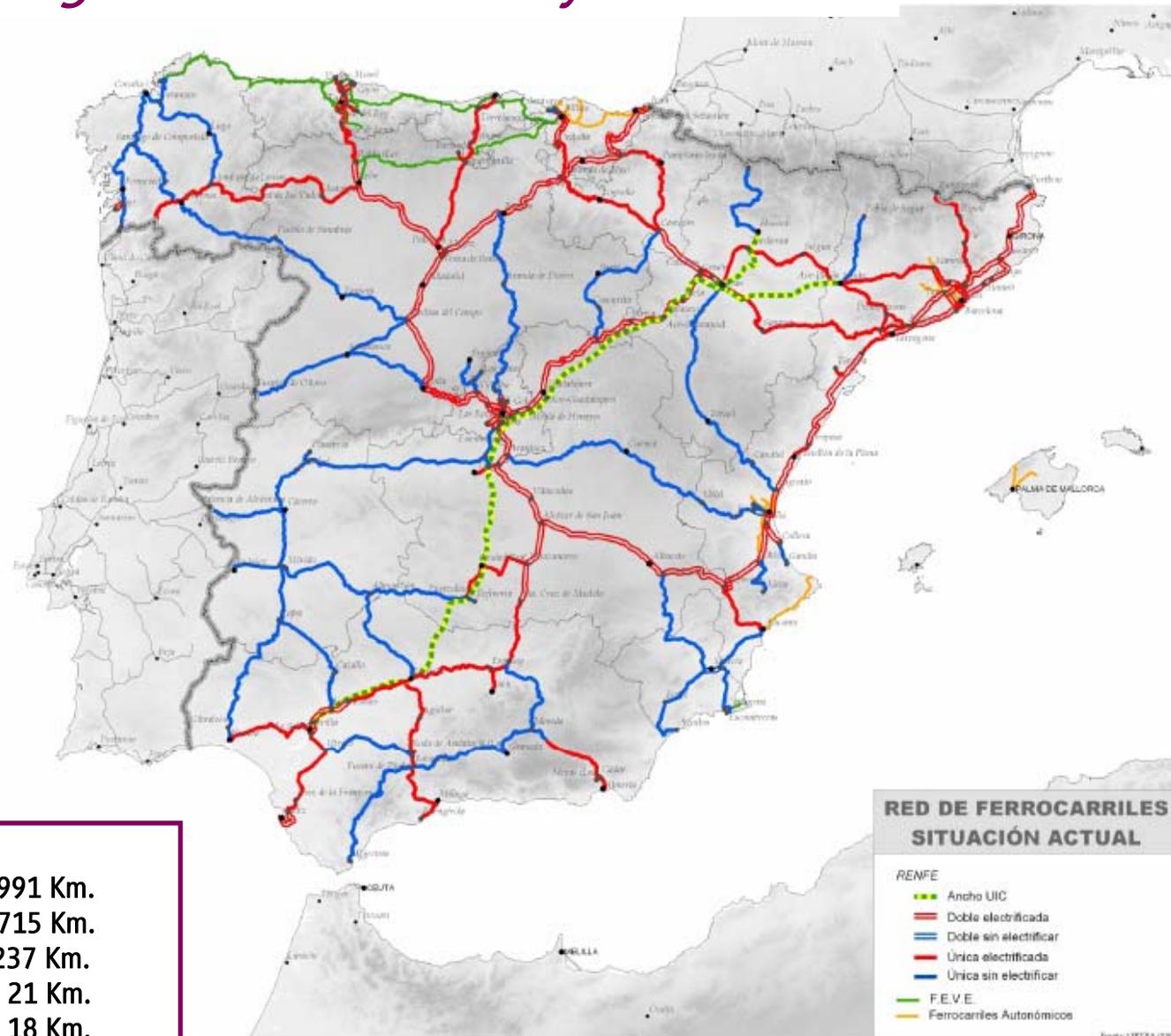
Historic evolution



THE NEW RAILWAY MODEL IN SPAIN



Configuration of the railway network

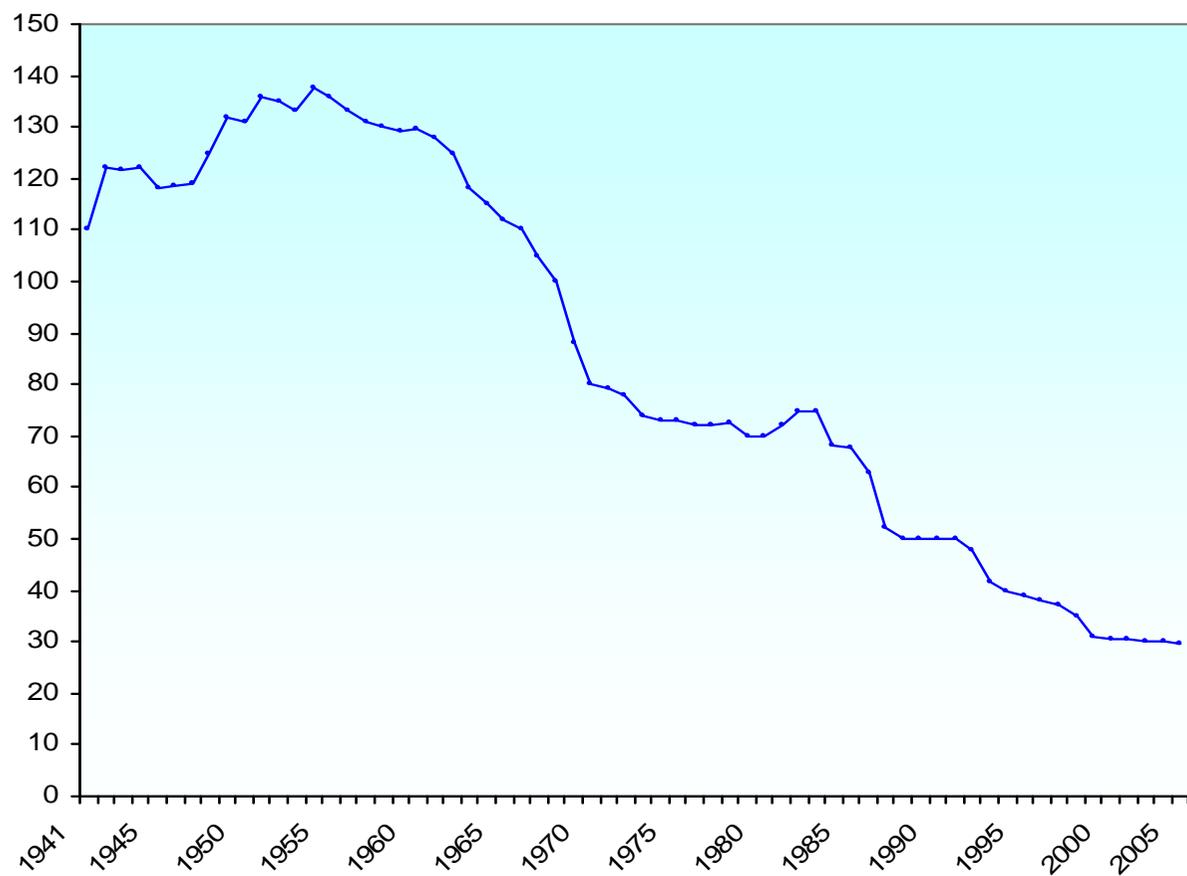


LINES:

Total	12,991 Km.
Conventional	11,715 Km.
UIC Gauge	1,237 Km.
Mixed Network	21 Km.
Metric Gauge	18 Km.

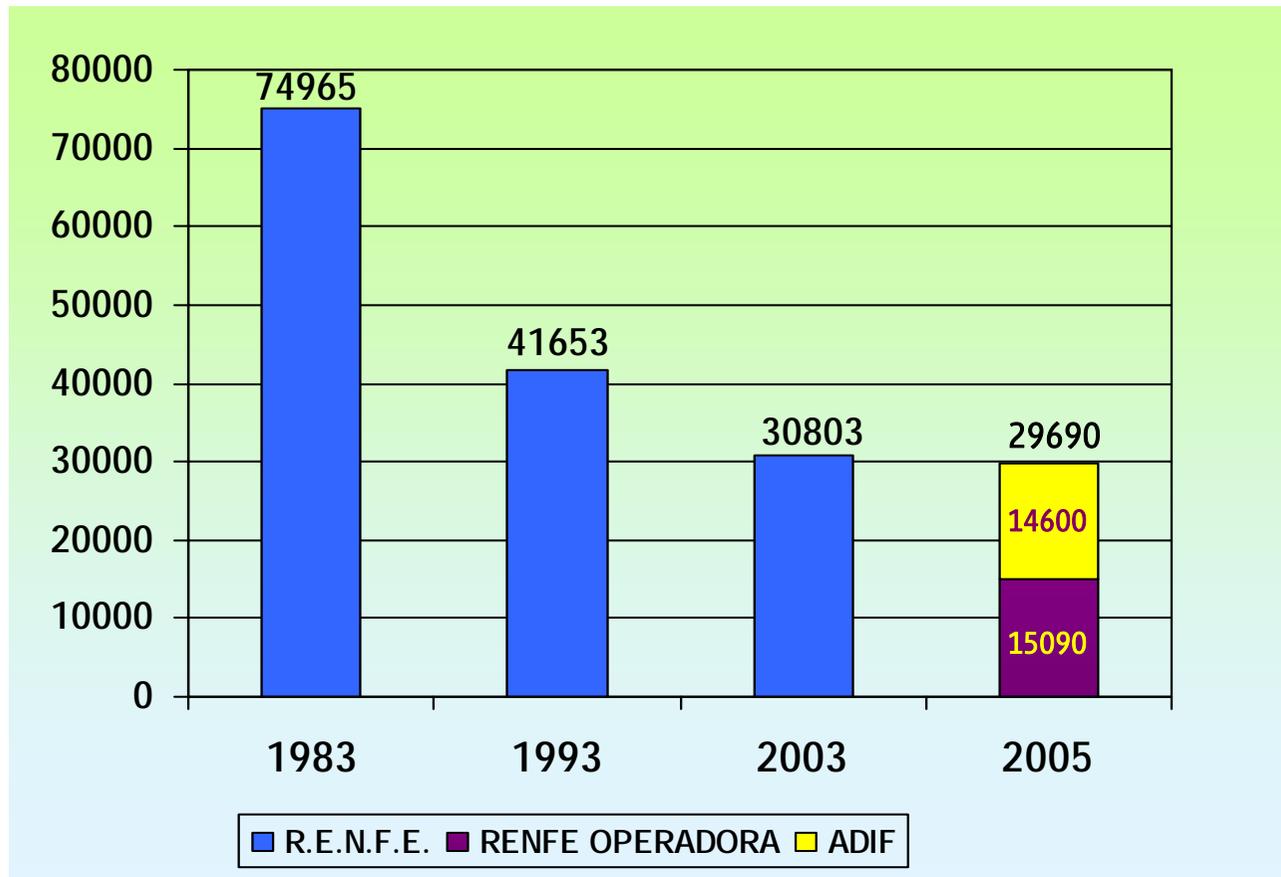
EVOLUTION OF RENFE STAFF

Thousands of personnel



EVOLUTION OF THE RENFE STAFF IN LAST THREE DECADES

PERSONNEL





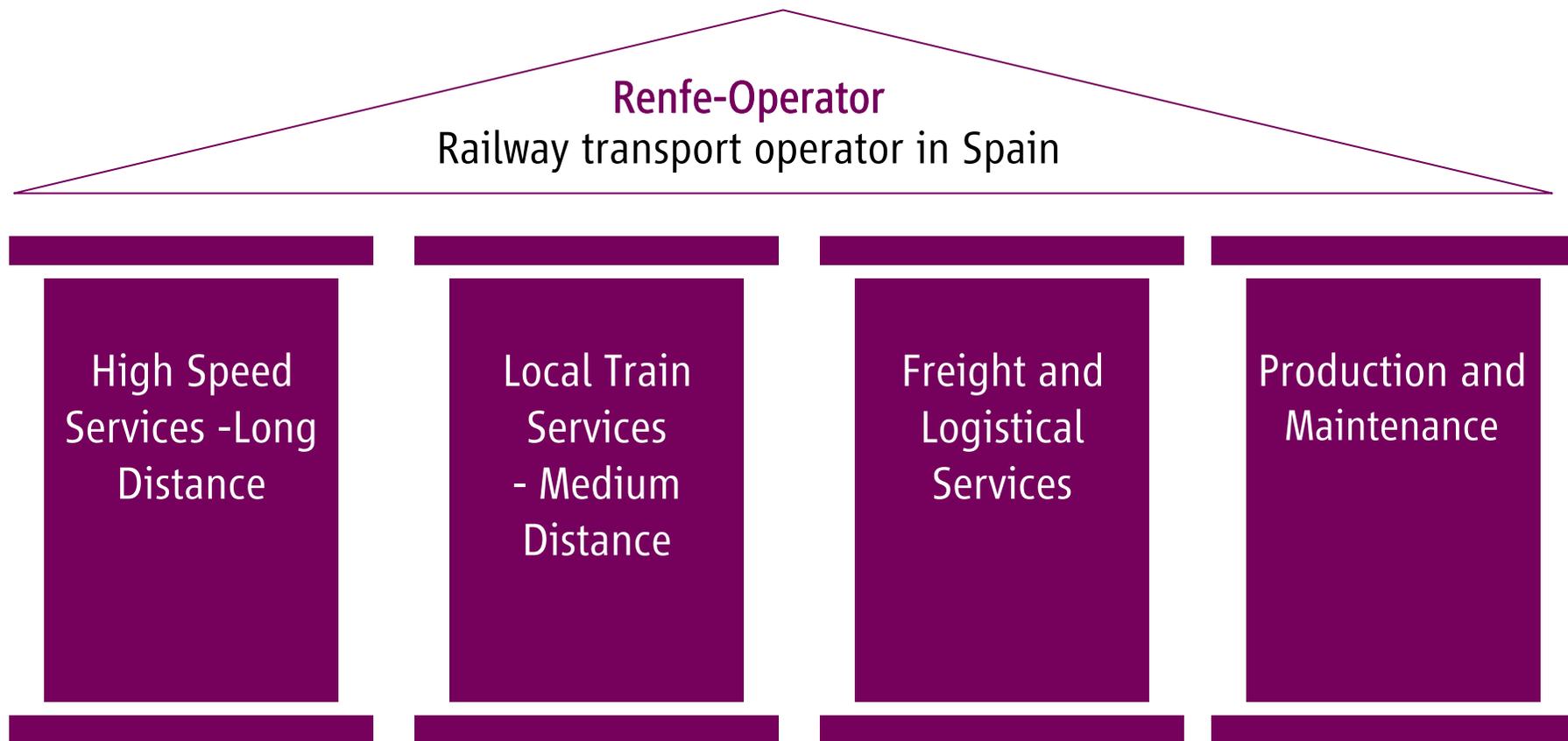
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RENFE-Operadora

SPANISH RAILWAY UNDERTAKING

ORGANIZATIONAL STRUCTURE

Company model with a corporate centre and with four distinct areas of activity



Amount of traffic in 2006

PASSENGER TRAFFIC

PASSENGERS-KILOMETRE

20,266,405,000

PASSENGERS

516,676,308

FREIGHT TRAFFIC

TONNES-KILOMETRE (net)

11,011,882,950

TONNES (net)

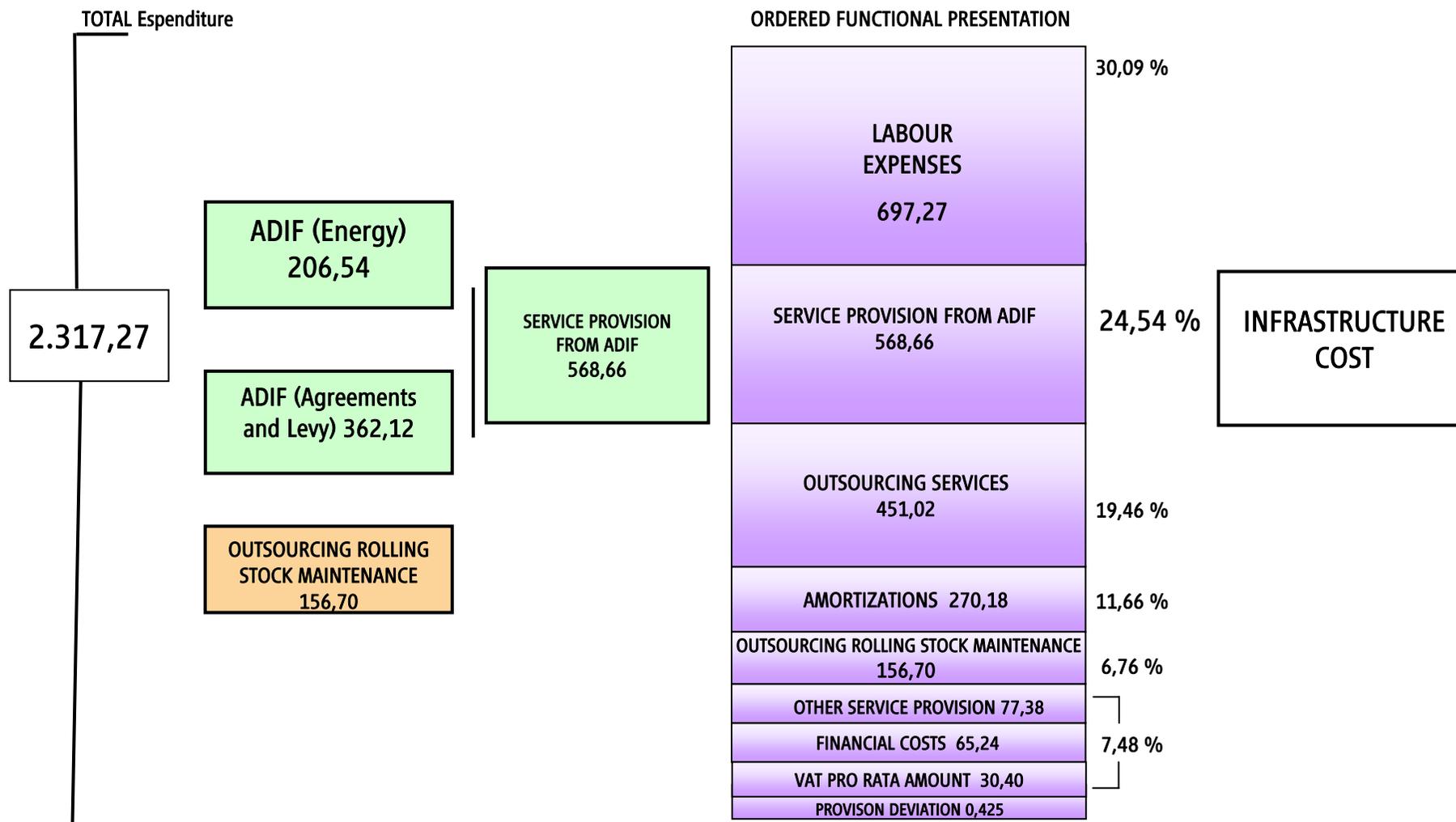
24,918,237

PRODUCTION

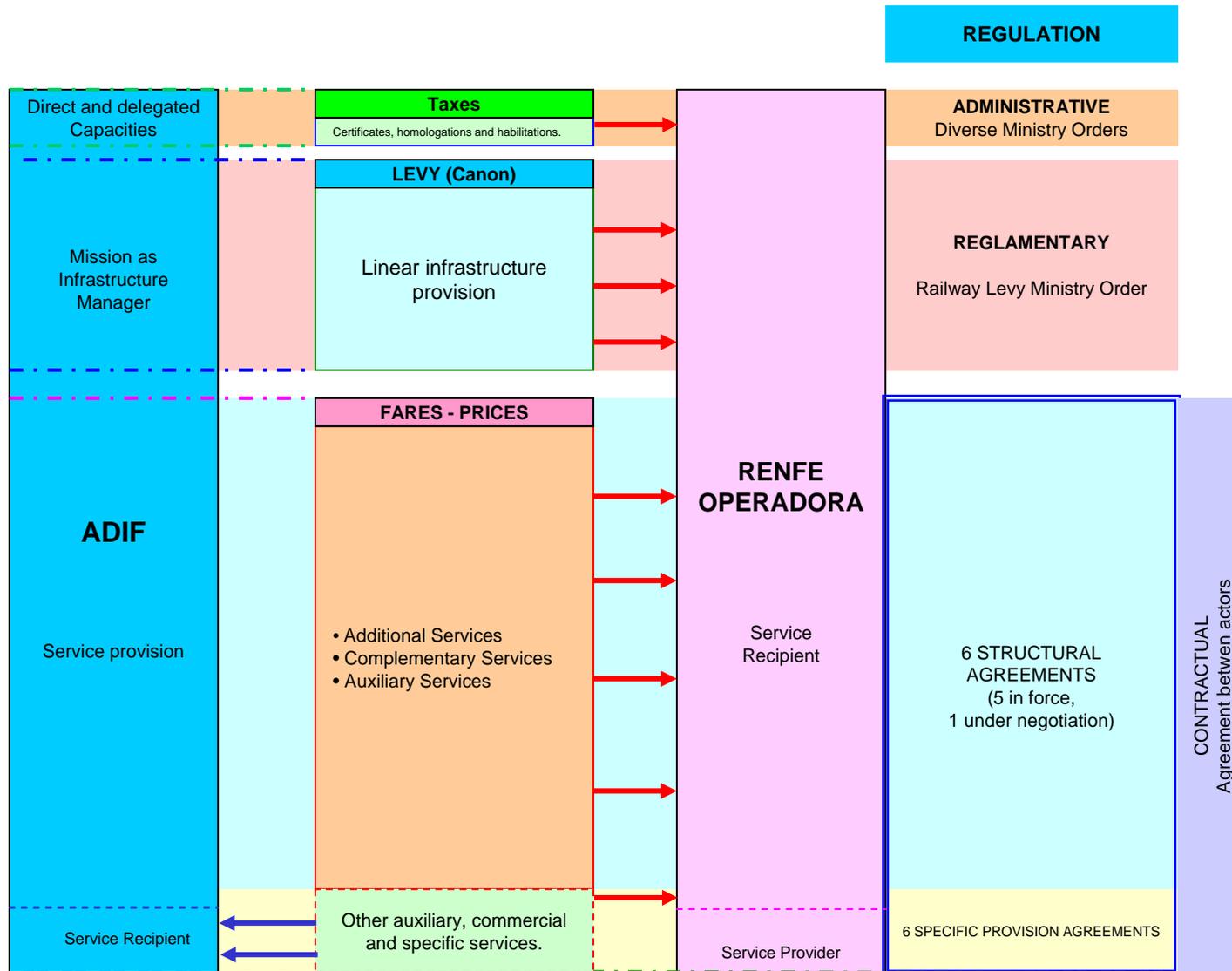
TRAINS/DAY

4,978

RENFE EXPENSES AND INFRASTRUCTURE COST



INFRASTRUCTURE PROVISION TO RENFE-OPERADORA



CONTRACT-PROGRAMME RENFE-GOVERNMENT

- Objectives

- Promote the railway development, increasing the market share
- Increase the quality of service
- Stimulate safe and environment friendly transport

- Commitments

- RENFE

- Adopt measures to limit spending
- Staff reduction
- Invest in new trains
- Limit the company debt

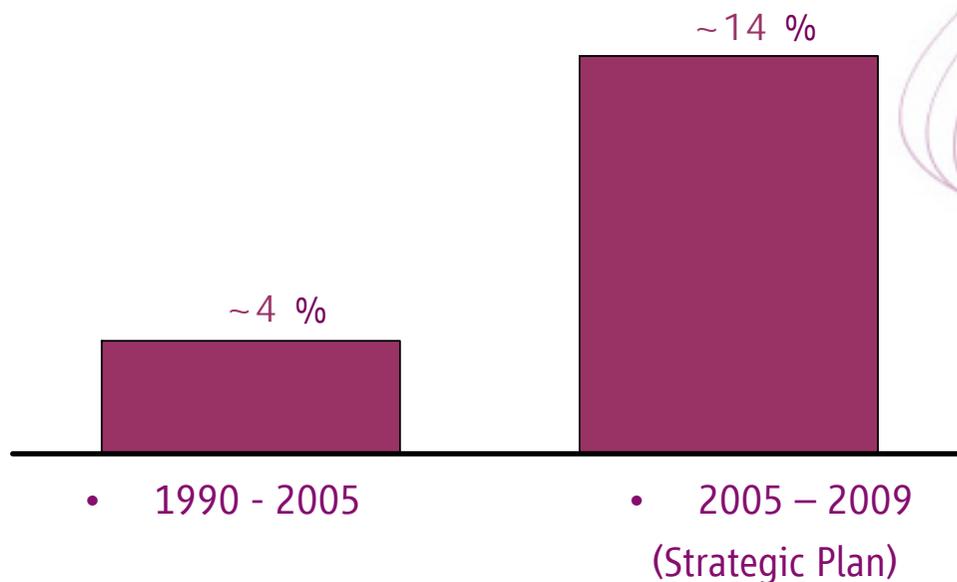
- GOVERNMENT

- Allow independent management of the company
- Make financial contributions for Human Resources Plan and Public Service Transport
- Allow a limited company debt to fulfill their commitments

A new Management Model to:

- Ensure the ambitious growth targets set out in the 2005-2009 Strategic Plan

Average annual growth in revenue from traffic



A new Management Model to:

- Ensure the ambitious growth targets set out in the 2005-2009 Strategic Plan

100 million
more
passengers

+ 19.3 %

€ 1,100 million
more in revenue

+ 79.6%

4 million more
tonnes

+ 13.9%

43 million more
Train-Km

+ 24.7%



Key financial-economic parameters

- Mainly in New Trains.-

Total Investment (millions €)	2006	2007	2008	2009	2010	TOTAL
	1,036	1,208	1,249	1,064	1,216	5,772

Contributions of the State to RENFE-Operadora.

State Contributions (million €)	2006	2007	2008	2009	2010	TOTAL
CURRENT TRANSFERS	558	595	585	491	396	2.624
<i>Compensation to Commuter and Medium Distance services</i>	<i>301</i>	<i>316</i>	<i>353</i>	<i>347</i>	<i>350</i>	<i>1.668</i>
<i>Loss compensation</i>	<i>227</i>	<i>248</i>	<i>191</i>	<i>100</i>	<i>-9</i>	<i>757</i>
<i>Human Resource Plan (Reduction Staff)</i>	<i>35</i>	<i>31</i>	<i>41</i>	<i>44</i>	<i>46</i>	<i>197</i>
CAPITAL CONTRIBUTIONS	404	404	449	479	404	2.140
TOTAL CONTRIBUTION FROM STATE	962	999	1.034	970	800	4.764

Safety.

Accidents/Mill.Km.Train	2006	2007	2008	2009	2010
Rate of Admissible Risk (TRA)	0.072	0.050	0.041	0.030	0.026

EVOLUTION OF RENFE-Operadora STAFF.

	2006	2007	2008	2009	2010
Personnel number	14,888	14,767	14,635	14,476	14,317

Fares.

Freight:

2006: +3.6%

Yearly average increase for period 2007/2010: 2.1%

Passengers:

Commuter: +5.3%

Medium distance: +4.7%

High Speed / Long Distance: +6.3%

(Many Conventional Long Distance Services will be turned into High Speed Services)

Traffic.

PASSENGERS-KM. (Millions)

	2006	2007	2008	2009	2010
Commuter	8.639	8.844	9.171	9.745	10.399
Medium Distance	3.235	3.352	3.692	4.369	4.657
High Speed – Long Distance	8.631	9.173	12.121	13.195	14.454

TONNES-KM. (Millions)

Freight	11.360	11.708	12.398	12.877	13.371
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Income of RENFE-Operadora (million €)

	2006	2007	2008	2009	2010
Traffic income	1,585	1,719	2,216	2,520	2,812
Compensation for Commuter and Medium Distance services	300	326	343	347	350
Other incomes	249	171	340	372	461
TOTAL INCOME:	2,134	2,216	2,899	3,239	3,623

RENFE-Operadora's Balance Sheet.

(Million euros)

ASSETS	2006	2007	2008	2009	2010
Net assets	4,194	5,118	6,015	6,659	7,396
Establishment expenses	2	2	2	1	1
Non-current assets	173	173	173	173	173
General expenses to distribute	2	2	2	2	2
Current assets	427	430	435	482	434
TOTAL ASSETS:	4,798	5,725	6,627	7,317	8,006

LIABILITIES	2006	2007	2008	2009	2010
Equity	1,639	2,043	2,492	2,971	3,375
Income to distribute	11	10	10	9	9
Provisions	56	58	59	60	61
Bank liabilities	2,258	2,779	3,226	3,391	3,774
Current liabilities	834	835	839	886	787
TOTAL LIABILITIES:	4,798	5,725	6,626	7,317	8,006



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High Speed Services

CHRONOLOGY

- The High Speed Business Unit is created in 1990.
- New approach: clear customer orientation.
- Founded as an integrated system.
- Commercial operations begin on 21 April, 1992.
- AVE infrastructure and traffic are separated at the end of 1993.
- The punctuality commitment is made on 12 September, 1994.
- In 1997, one year before the forecast, it obtains profits for the first time: 391 million pesetas (2.4 million euros).
- In October 1998 AVE obtains the European Quality Prize awarded by the EFQM.

VIDEO "TRAIN AVE – AVE MARIA"





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Products and fleet for High Speed Service

- LONG DISTANCE*
- MEDIUM DISTANCE*
- DOUBLE GAUGE TRAINS*

High Speed - Long Distance



Madrid-Córdoba / Sevilla (471 Km.):	(1992-April-21)	2h,20'	(40 trains a day)
Madrid-Zaragoza (307 Km.):	(2003-October-11)	1h,29'	(24 trains a day)
Madrid-Lleida (447 Km.):	(2003-October-11)	2h,20'	(12 trains a day)
Madrid-Huesca (390 Km.):	(2005-April-28)	2h,15'	(4 trains a day)
Madrid-Camp Tarragona (528 Km.):	(2006-December-18)	2h,43'	(16 trains a day)

Services included in the ticket price

	CLUB	BUSINES	TOURIST
Four music channels and earphones	✓	✓	✓
Video	✓	✓	✓
Puzzles for children	✓	✓	✓
Facilities for handicapped	✓	✓	✓
Nursery	✓	✓	✓
A la carte restaurant	✓		
Free bar	✓		
Catering service	✓		
Access to VIP Lounges	✓	✓	
Daily press and magazines	✓	✓	
Parking (24 h. single ticket, 48 h. return ticket)	✓	✓	

AVE serie 100



Gauge:	1,435 mm
Maximum speed:	300 Km/h
Number of trains:	18
Length:	200 m
Number of seats:	320 (Club: 30, Business class: 78 and Tourist class: 212)
Number of seats for people with reduced mobility (PRM):	2

AVE Serie 100 - Cafetería



AVE Serie 100 - Tourist class



AVE Serie 100 - Class Club



AVE Serie 100 - Business class



Talgo 350 serie 102



Gauge:	1,435 mm
Maximum speed:	330 Km/h
Number of trains:	16 (+30)
Length:	200 m
Number of seats:	318 (6 Club lounge, 39 Club, 78 Business class, 195 Tourist class)
Number of seats for people with reduced mobility (PRM):	2

AVE Serie 102 - Class Club



AVE Serie 102 – Business Class



AVE Serie 102 – Tourist Class



AVE Serie 102 - Cafetería



ICE 350 serie 103



Gauge:	1,435 mm
Maximum speed:	350 Km/h
Number of trains:	16 (+10)
Length:	200 m
Number of seats:	404 (7 Club Lounge, 30 Club, 103 Business, 264 Tourist)
Number of seats for people with reduced mobility (PRM):	2

ICE serie 103 - Class Club



ICE serie 103 - Cafetería



ICE serie 103 – Lounge Club and Cabin



ICE serie 103 – Business class



ICE serie 103 - Class Tourist



Madrid Puerta de Atocha AVE Club Lounge



AVE CLUB LOUNGE



MODERNITY



DESIGN



CONFORT



High Speed Medium Distance



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Avant

Madrid-Ciudad Real (171 Km.):	1992-October-18	0h:51'	(26 trains a day)
Madrid-Puertollano (210 Km.):	1992-October-18	1h:13'	(26 trains a day)
Córdoba-Sevilla (128 Km.):	2004-December-29	0h:45'	(16 trains a day)
Madrid-Toledo (71 Km.):	2005-November-15	0h:30'	(22 trains a day)

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Avant

Serie 104

Gauge:	1,435 mm
Maximum speed:	250 Km/h
Number of trains:	20 (+13)
Length:	107 m
Number of seats:	237 (31 Business class, 206 Tourist class)
Number of seats for people with reduced mobility (PRM):	1



Train serie 104 Tourist clas



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Avant

Train serie 104 Business Class



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Avant

Alvia Serie 120 / Altaria / Talgo 200



TALGO 200	Madrid-Málaga (527 Km.):	(1993-January-1)	3h:47'	(12 trains a day)
ALTARIA	Madrid-Cádiz (626 Km.):	(1993-July-26)	5h:05'	(4 trains a day)
	Madrid-Huelva (586 Km.):	(1993-August-1)	4h:18'	(2 trains a day)
	Madrid-Algeciras (635 Km.):	(1999-June-22)	5h:18'	(4 trains a day)
	Madrid-Barcelona (616 Km.):	(2003-October-11)	4h:30'	(2 trains a day)
ALVIA	Madrid-Barcelona (616 Km.):	(2006-May-17)	3h:55'	(14 trains a day)
ALTARIA	Madrid-Granada (577 Km.):	(2006-December-17)	4h:28'	(4 trains a day)

Talgo 200

Altaría



Doble Gauge:	1,435 / 1,668 mm
Maximum speed:	200 Km/h
Length:	Variable
Number of seats for type of coach:	Tourist class: 36 Business class: 26
Number of seats for people with reduced mobility (PRM):	1

Altaria - Cafetería



Altaria – Business Class



Altaria –Tourist class





Alvia-Series 120

Doble Gauge:	1,435 / 1,668 mm
Maximum speed:	250 Km/h
Number of trains:	12 (+45)
Length:	107 m
Number of seats:	238 (156 Tourist, 82 Business class)
Number of seats for people with reduced mobility (PRM):	1





ALVIA Serie 120

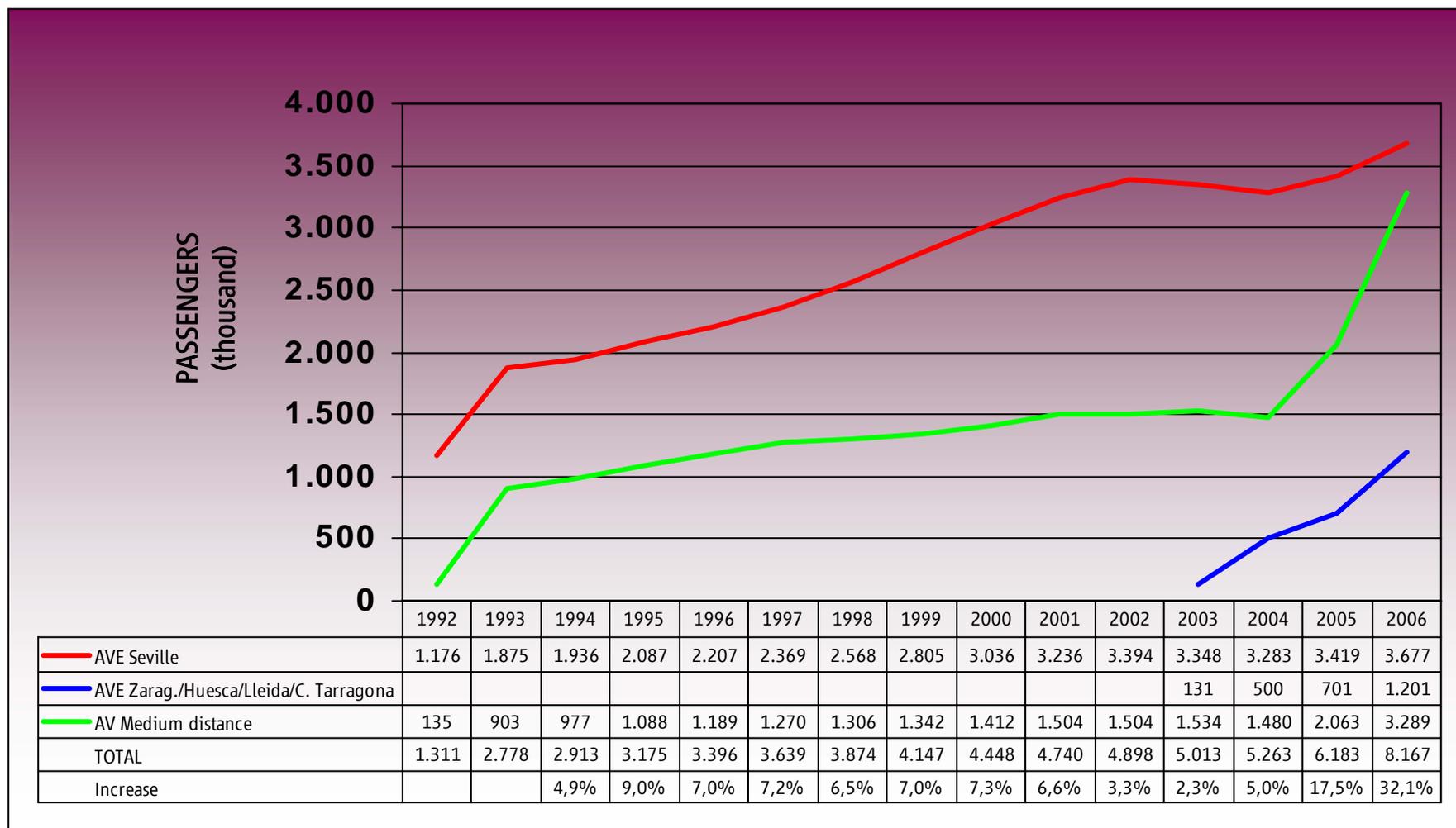


Talgo serie 130



Doble Gauge:	1,435 / 1,668 mm
Maximum speed:	250 Km/h
Number of trains:	45
Length:	181 m
Number of seats:	299 (Business class: 63 and Tourist class : 212)
Number of seats for people with reduced mobility (PRM):	1

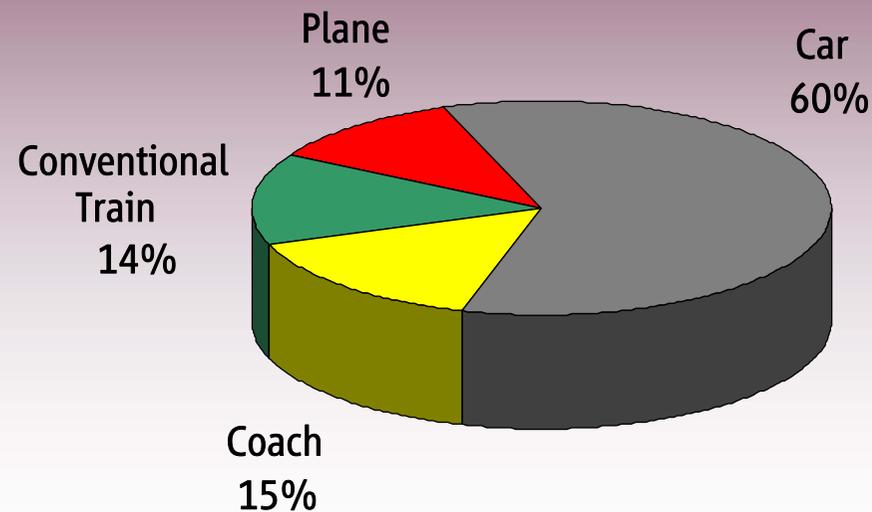
Evolution of passenger numbers



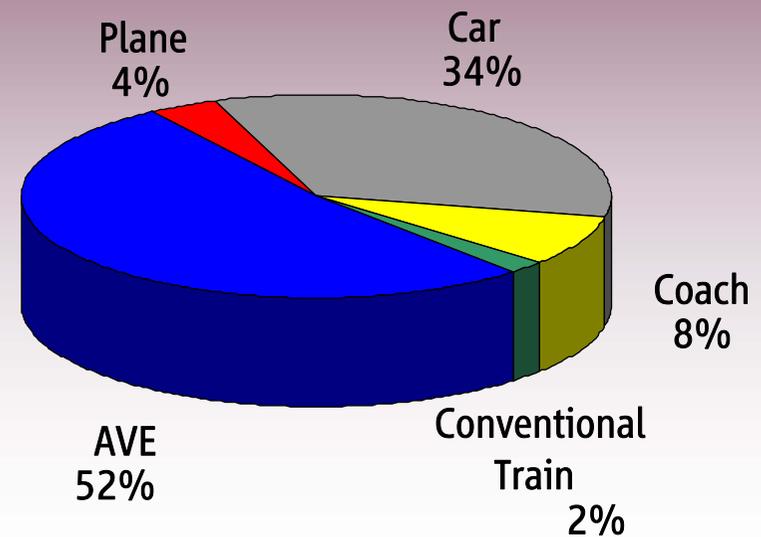
Modal Distribution: Madrid-Seville Corridor

APRIL 1992 New high speed service (AVE)

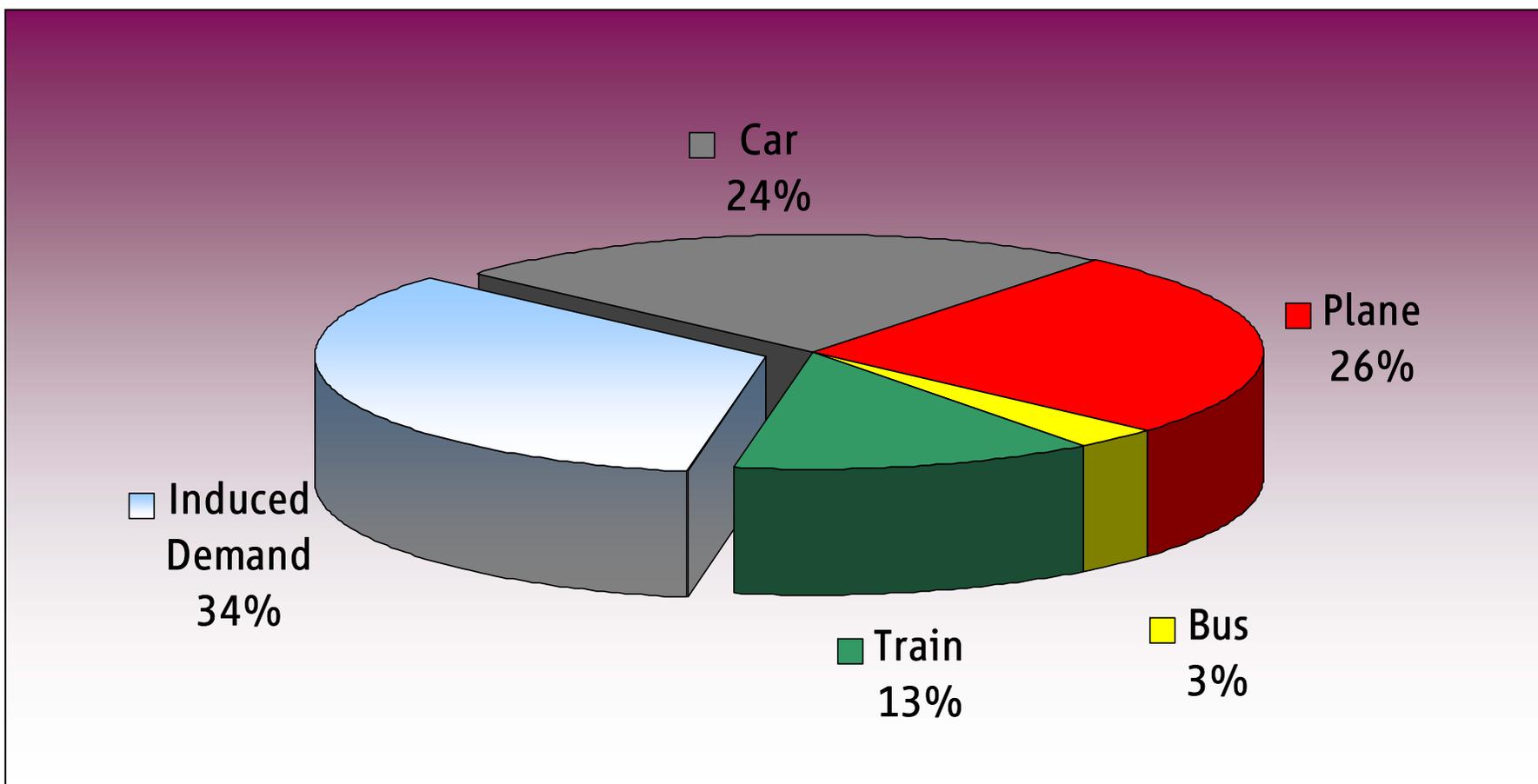
Before AVE
(1991)



After AVE
(1993)

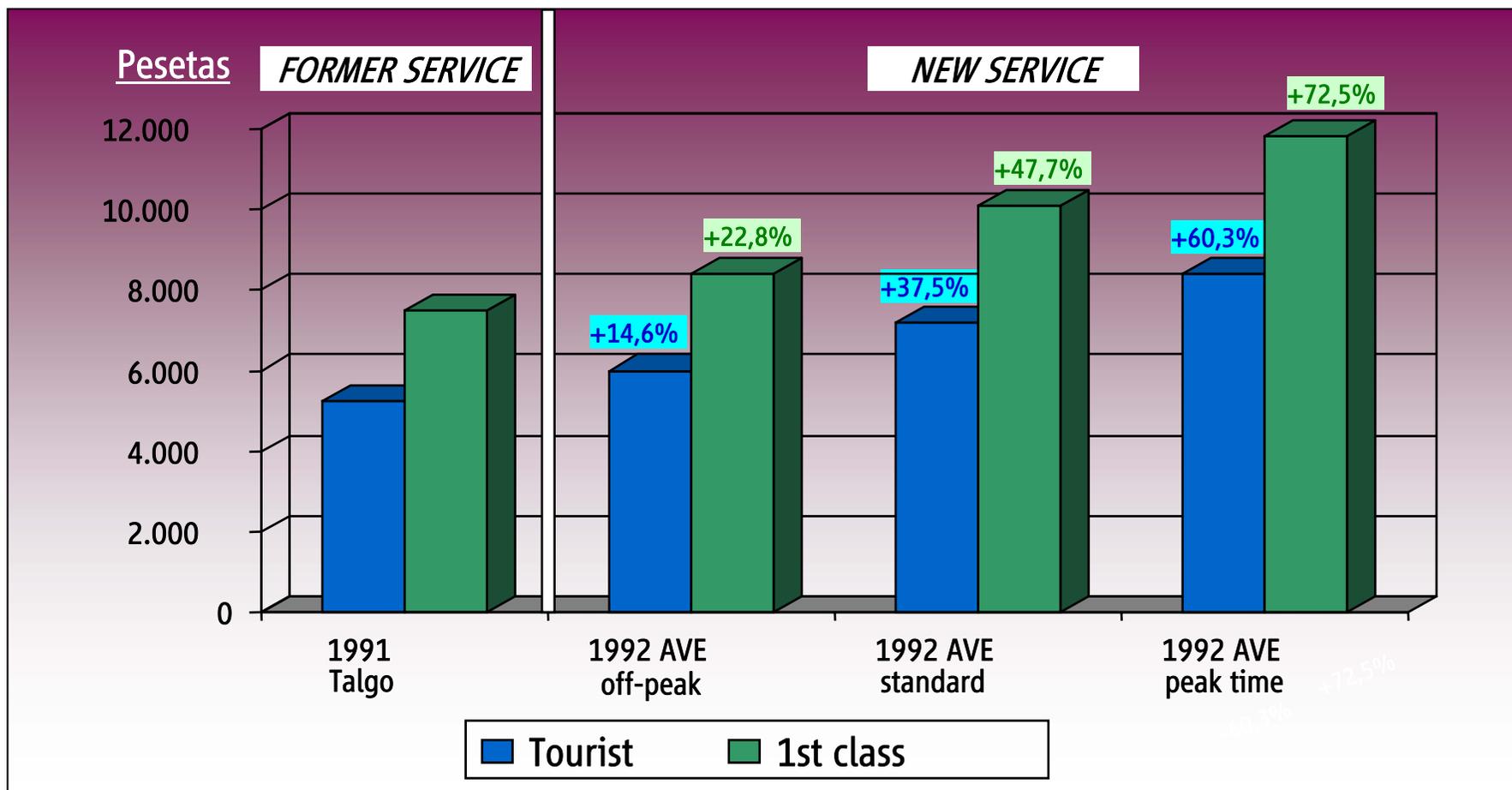


Source of Demand

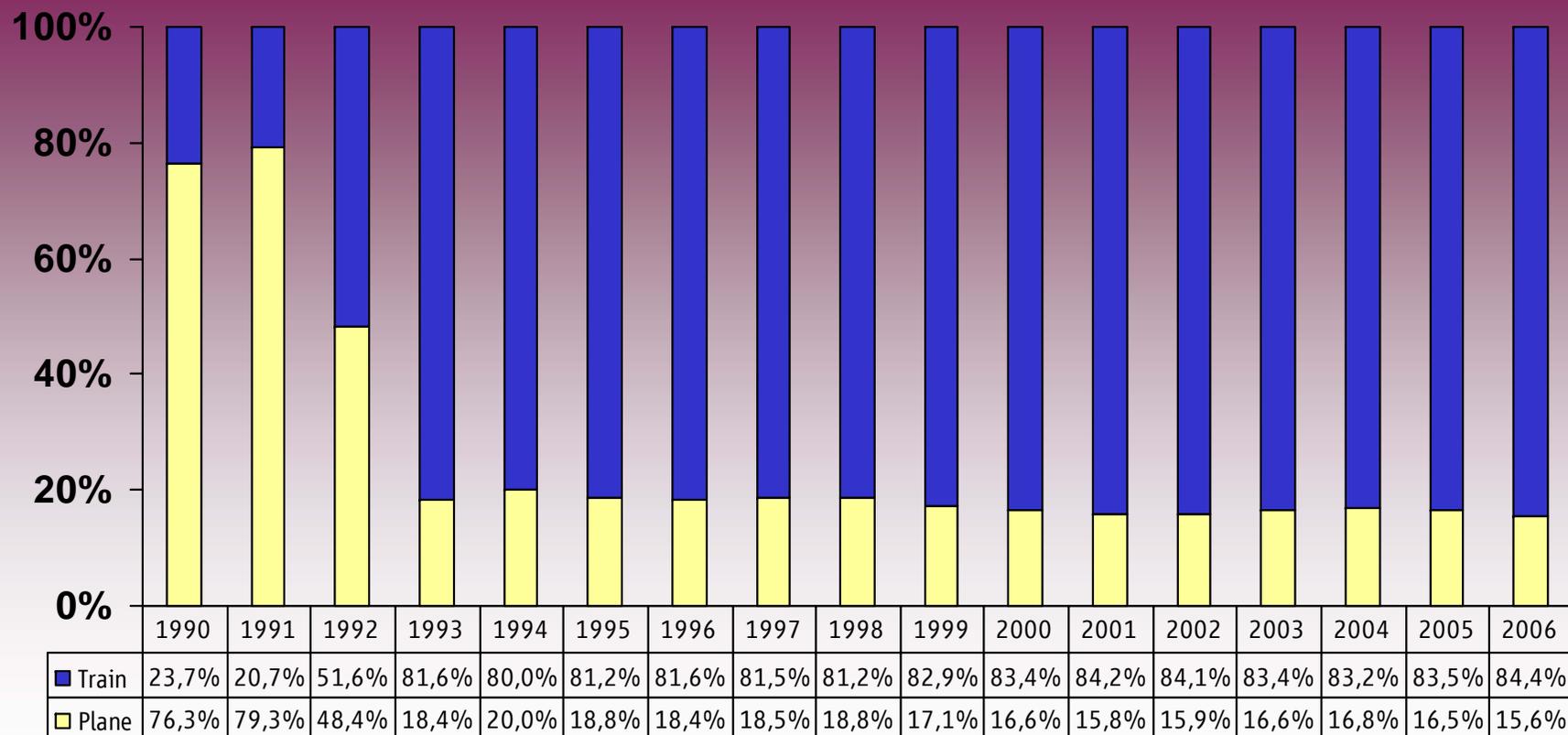


Source: AVE annual product research

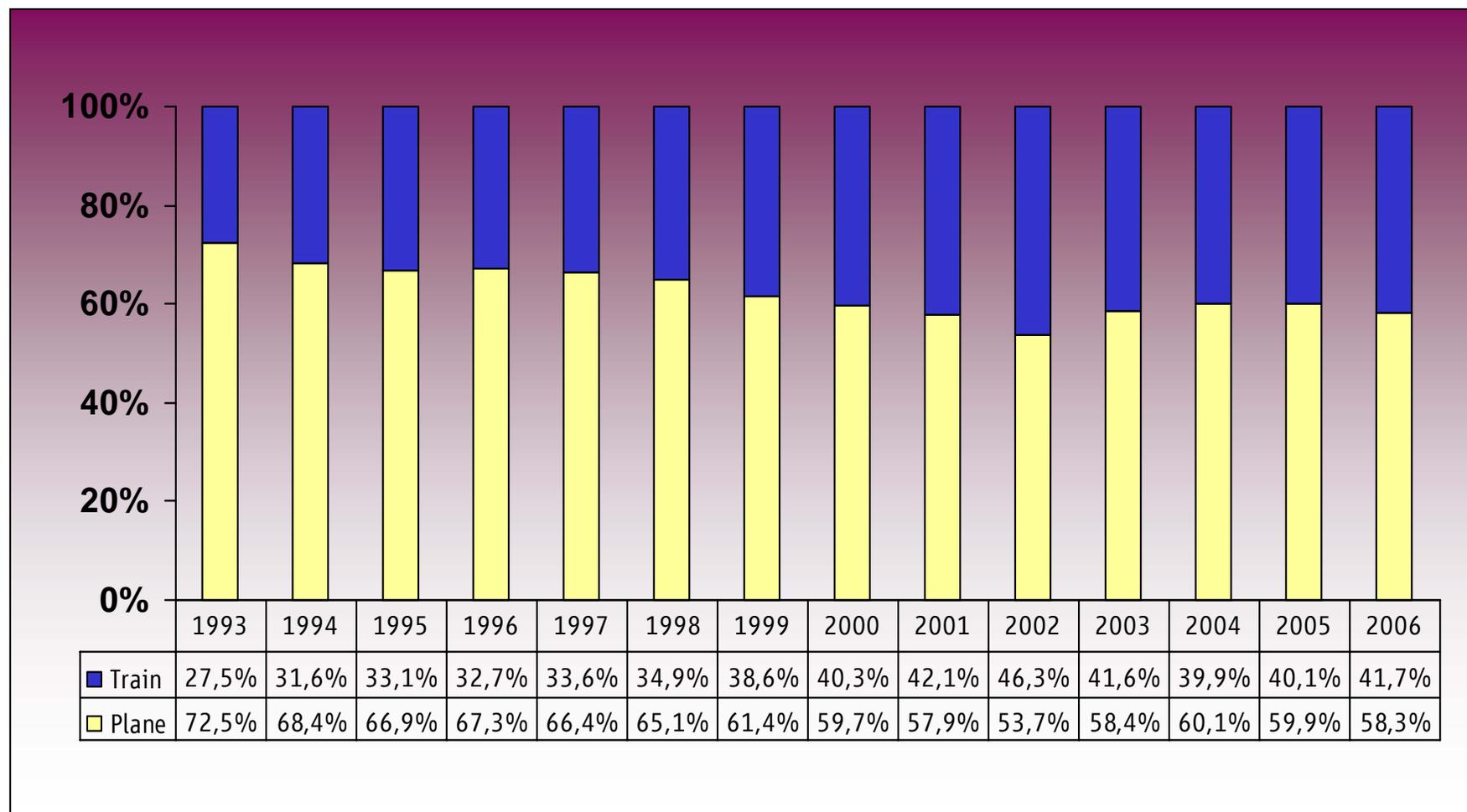
Talgo / AVE Madrid – Seville (471 Km.) Price Evolution



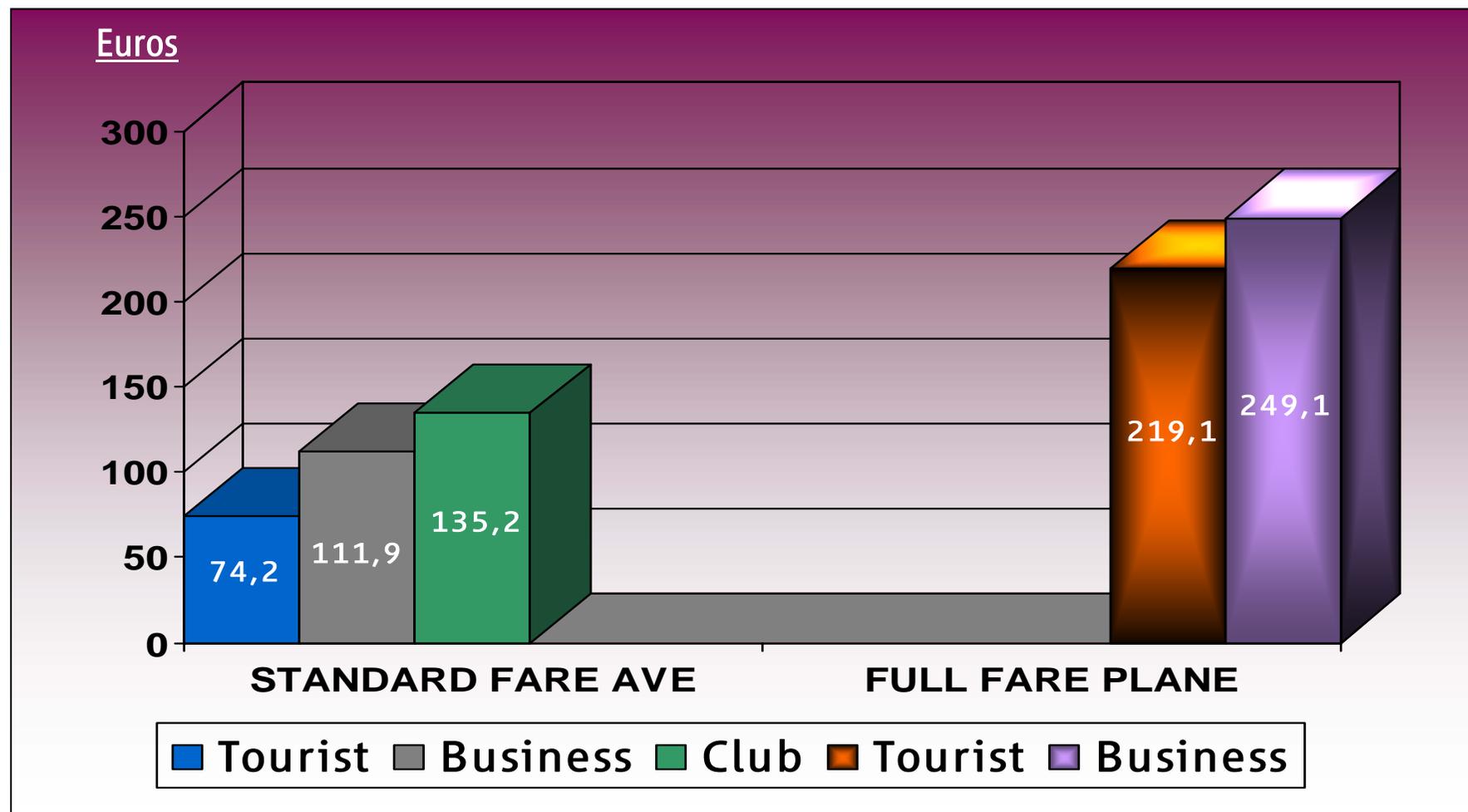
Market Share: Madrid – Seville High Speed



Market Share: Madrid – Málaga Service - 200 Km/h.



2007 Prices (AVE / Plane) Madrid-Seville (471 Km)





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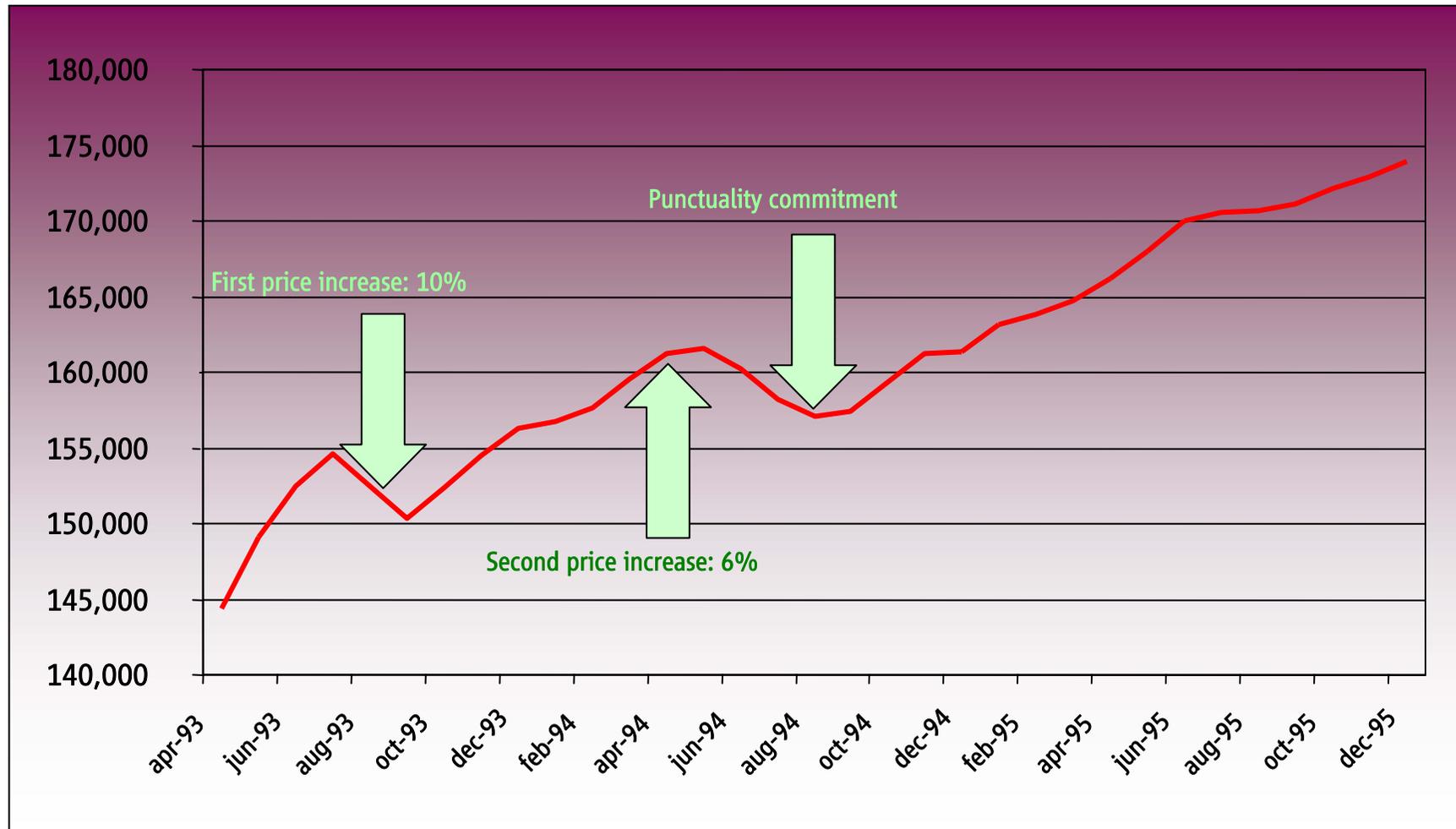
Quality Commitments RENFE-Operadora

The main aspects of RENFE-Operadora's business policy are:

- ✓ Comfort
- ✓ Competitive Journey Times
- ✓ High Standard of Service
- ✓ Safety
- ✓ Punctuality
- ✓ Respect for the Environment
- ✓ **Commitment to Customers**

“GET ON THE TRAIN” VIDEO

Evolution of the number of AVE passengers - monthly moving average -



Punctuality Commitment

Date: September 11, 1994

Product: High Speed Trains

Commitment:

The **total ticket price** is refunded if a train arrives at its destination more than **five minutes late**.

The price is refunded in **cash**, from the day after de delay.

Punctuality commitment on AVE trains from 12 September 1994 to 31 December 2006

Number of trains:

Total:	221,017	→	0.32%
Delayed:	698	→	

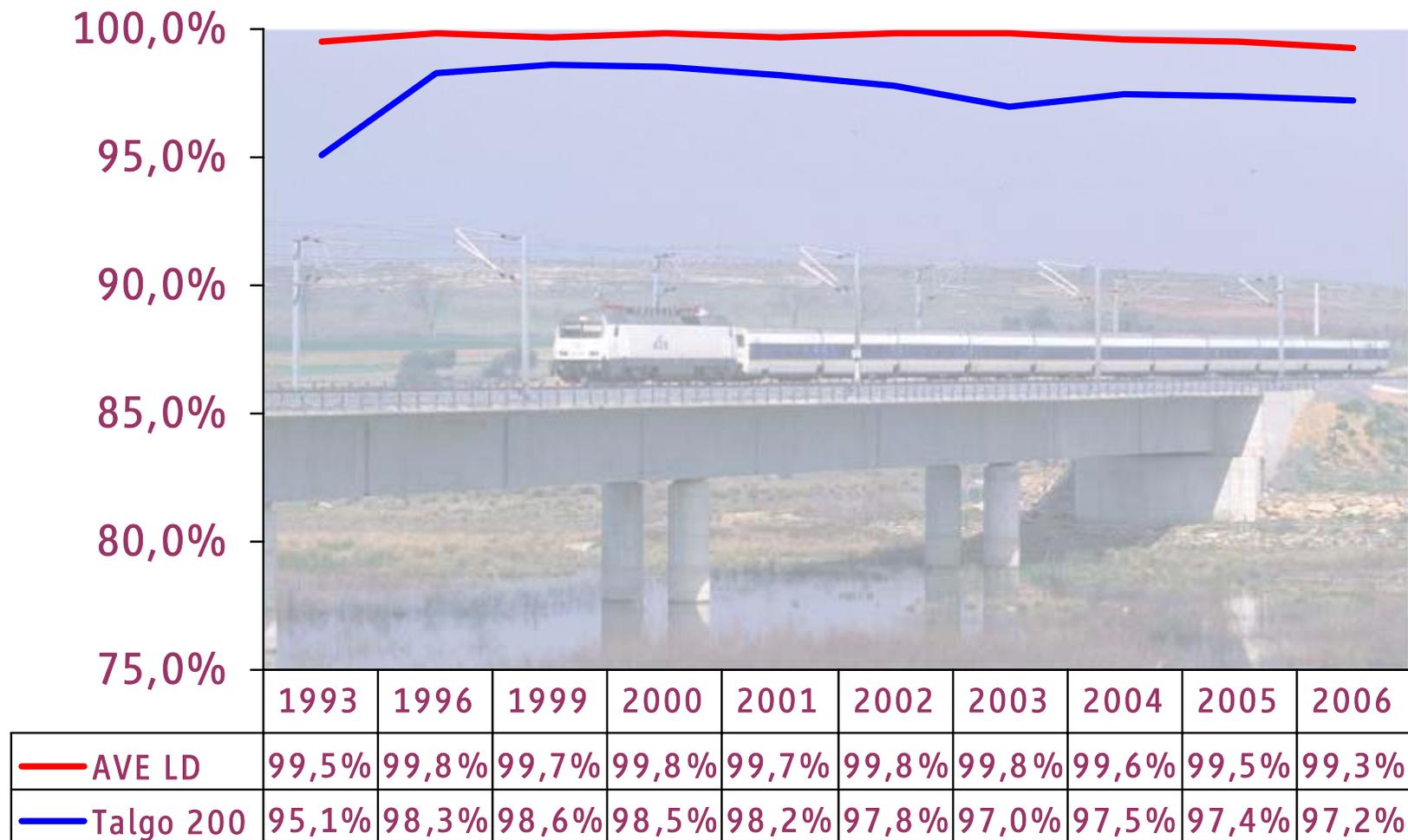
Number of Passengers:

Total:	55,027,812	→	0.28%
Delayed:	153,991	→	

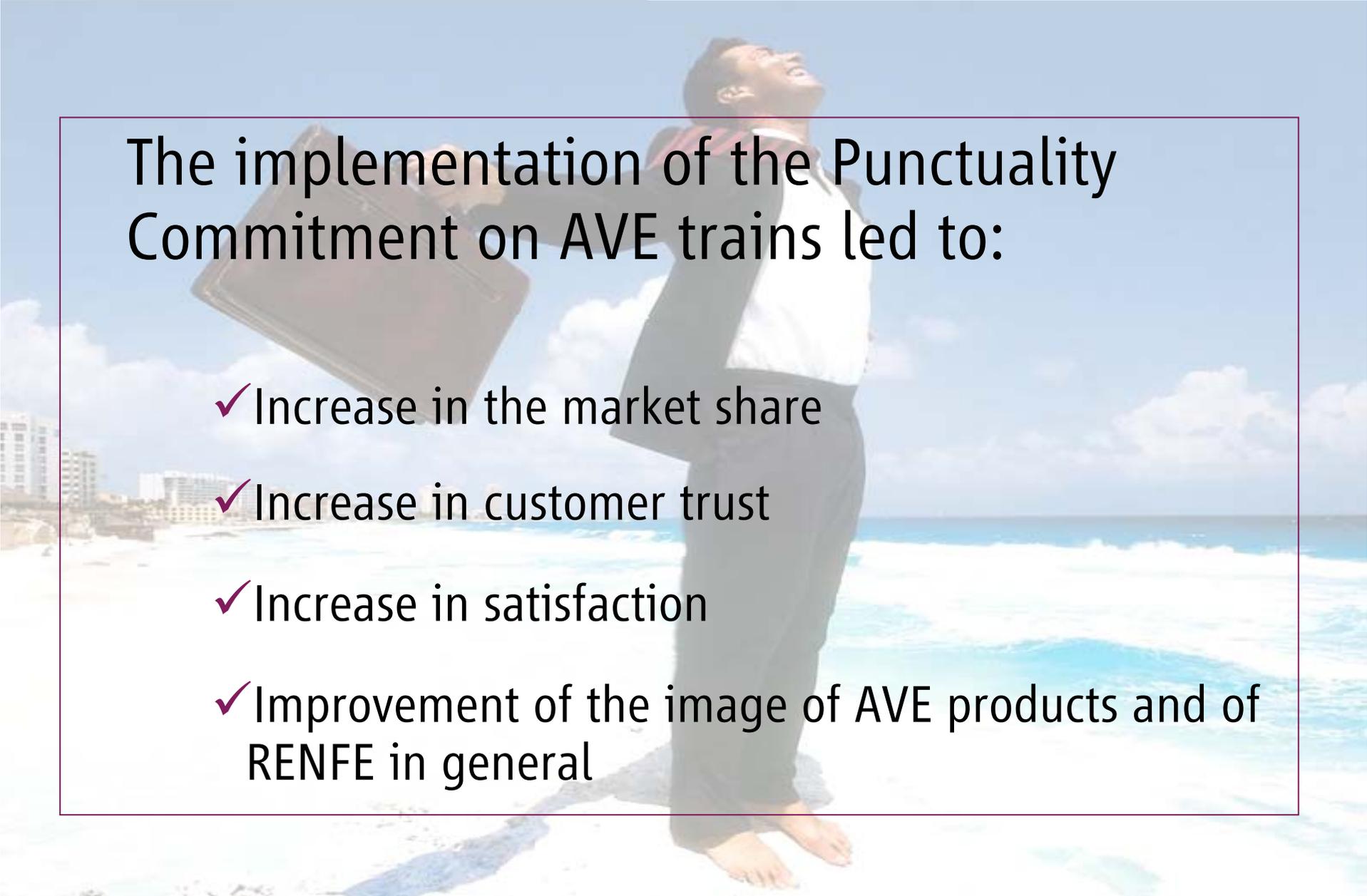
Income (Mill. Euros):

Total:	1,930.9	→	0.28%
Refunds:	5,5	→	

Evolution of punctuality on AVE and Talgo 200 trains



"AVE - HAPPINESS" VIDEO

A man in a dark suit and white shirt stands on a sandy beach, looking up at the sky with a smile. He is holding a dark briefcase in his right hand. The background shows the ocean with white waves and a blue sky with scattered clouds. In the distance, some buildings are visible on the left side.

The implementation of the Punctuality Commitment on AVE trains led to:

- ✓ Increase in the market share
- ✓ Increase in customer trust
- ✓ Increase in satisfaction
- ✓ Improvement of the image of AVE products and of RENFE in general

The success of the Punctuality Commitment on AVE trains led to:

- ✓ The gradual implementation of Punctuality Commitments in other products
- ✓ The company undertaking new quality commitments
- ✓ The more active involvement of employees and suppliers in achieving the standards of quality

Evolution of the delay refund policy: Talgo 200 (Madrid – Málaga)

Delay:	PERIOD OF VALIDITY		
	1993 - 1998	1998 - 2001	2001- Hoy
More than 20 min.	0%	0%	25%
More than 30 min.	0%	25%	25%
More than 40 min.	0%	25%	50%
More than 60 min.	25% (*)	50%	100%
More than 120 min.	50% (*)	75%	-
More than 180 min.	50% (*)	100%	-
More than 240 min.	100% (*)	-	-

() Other routes, different conditions, according to the scheduled duration of the journey.*

Delay compensations offered by RENFE-Operadora

Minimum commitments

As a general rule, for all products, according to the stipulations of the Railway Sector Regulations, Decree Law 2387 of December 2004	Delay:	Refund on ticket price:
	More than 1 hour	50%
	More than 1 hour and 30 min.	100%

In practice, these minimum compensation commitments only apply to overnight trains and, on isolated occasions, to daytime trains

Delay compensations offered by RENFE-Operadora

More demanding commitments by products

Products:	Delay:	Refund on ticket price:
Madrid-Seville AVE trains and High Speed Middle Distance trains	More than 5 minutes	100%
	More than 15 minutes	50%
Trains Alvia and AVE, running on Madrid-Zaragoza/Lleida/Camp de Tarragona-Huesca High Speed Line	More than 30 minutes	100%
	More than 20 minutes	25%
Alaris, Altaria, Euromed and Talgo 200 trains	More than 40 minutes	50%
	More than 60 minutes	100%
	Between 30 and 44 minutes	25%
Regional Trains (Except TRD trains)	Between 45 and 59 minutes	50%
	More than 60 minutes	100%
	Between 15 and 29 minutes	20%
TRD trains	Between 30 and 59 minutes	50%
	More than 60 minutes	100%
	Between 15 and 29 minutes	20%

Delay compensations which exceed those proposed by the European Union ...

Delay:	Refund on ticket price:
Up to 119 minutes	25%
Equal more than 120 minutes	50%

Common position (CE) N° 19/2006, adopted by the Council on 24 July 2006 with a view to the adoption of a Regulation of the European Parliament and of the Council on international rail passengers' rights and obligations

..., those of other European countries ...

Country:	Type of Service:	Delays:	Compensation:
France SNCF	TGV: Journeys of more than 100 km.	More than 30 minutes	1/3 of the ticket price, in "travel pass" vouchers
Germany DB	Main line trains: ICE, IC/EC, IR, MET and Thalys And CIS on national routes	More than 60 minutes (including missed connection)	20% of the ticket price, in "travel pass" vouchers
	IC- Sprinter	More than 30 minutes	Value of the IC-Sprinter train supplement, in "travel pass" vouchers
	DB NZ, Uex, CNL, EN, D	More than 120 minutes (including missed connection)	20% of the outbound ticket price (including additional prices), in "travel pass" vouchers
Italy FS	Italian Eurostar trains	More than 25 minutes	50% of the ticket price, in "travel pass" vouchers
	Intercity and Eurocity trains on national routes	More than 30 minutes	30% of the price of the ticket and used reservation, in "travel pass" vouchers
	Overnight Intercity trains and Express trains	More than 60 minutes	30% of the price of the ticket and used reservation per seat and 20% of the couchette or bed service price, in "travel pass" vouchers
Portugal CP	Quality tilting trains on the main lines and IC conventional trains	Between 60 and 90 minutes	50% of the fare
		More than 90 minutes	100% of the fare

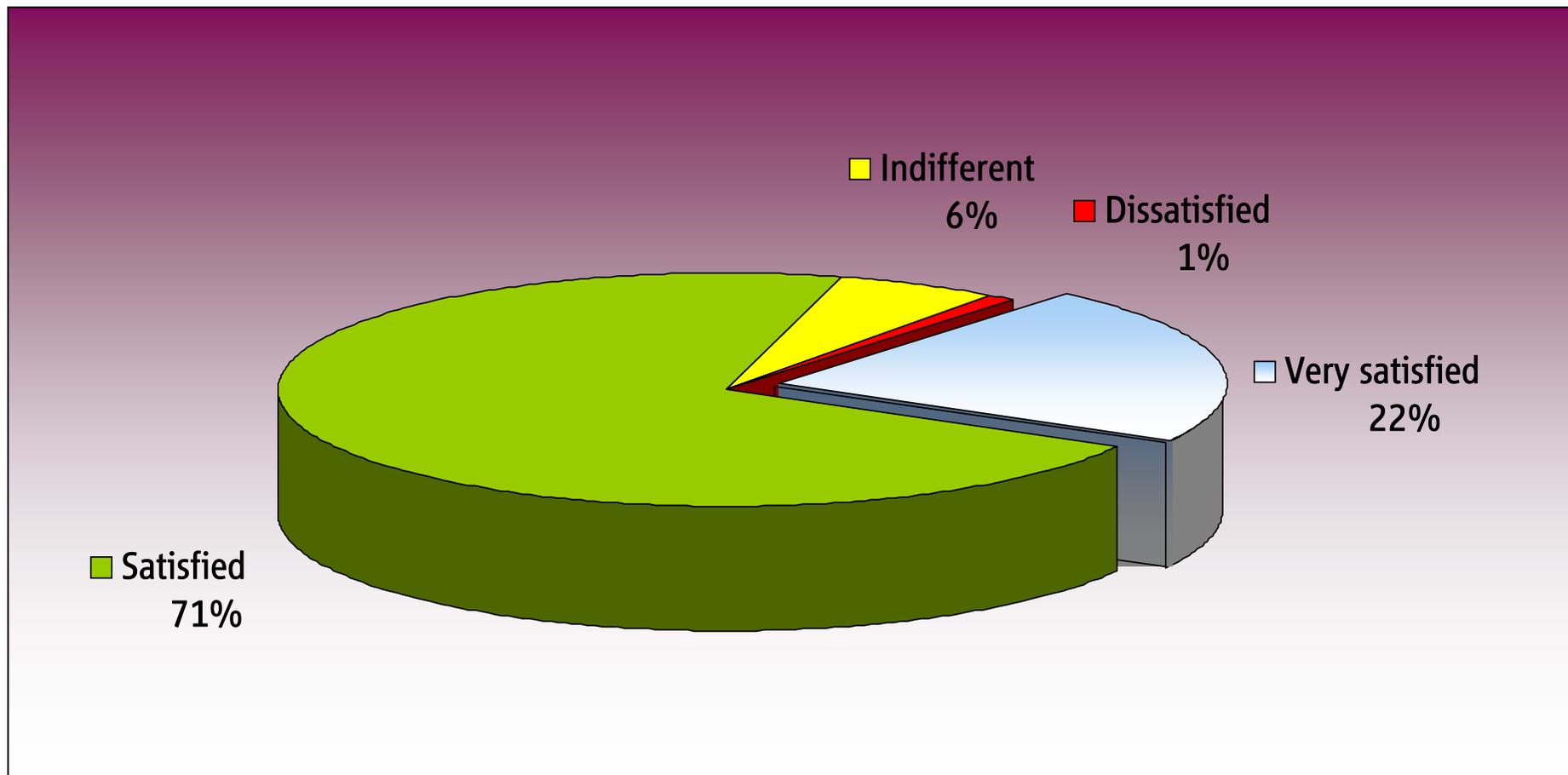
... and those of other star High Speed products.

Company:	Type of Service:	Delays:	Compensation:
Thalys	Only for international journeys	More than 30 minutes	20% in vouchers (cash in Germany)
		More than 60 minutes	50% in vouchers (cash in Germany)
		More than 120 minutes	100% in vouchers (cash in Germany)
Eurostar	All services, except Avignon and ski trains	Between 60 and 80 minutes	50% in "travel pass" vouchers or a free outbound journey
		More than 180 minutes	Cash refund

Compensations for lack or deficiency of on-board services High Speed / Long Distance

Lack / Deficiency of:	Refund on ticket price:	
	From 01 January 2002 to 26 May 2006	Situation since: 26 May 2006
Video/Audio	25%	15%
Air-conditioning (total)	50%	100%
Air-conditioning (partial)	50%	50%
WC	-	100%
Meal service at seat	-	50%
Cafeteria / Restaurant	25%	25%

AVE Customer Satisfaction (Madrid – Seville)



Source: Annual study of AVE product

General rating of quality by the customers

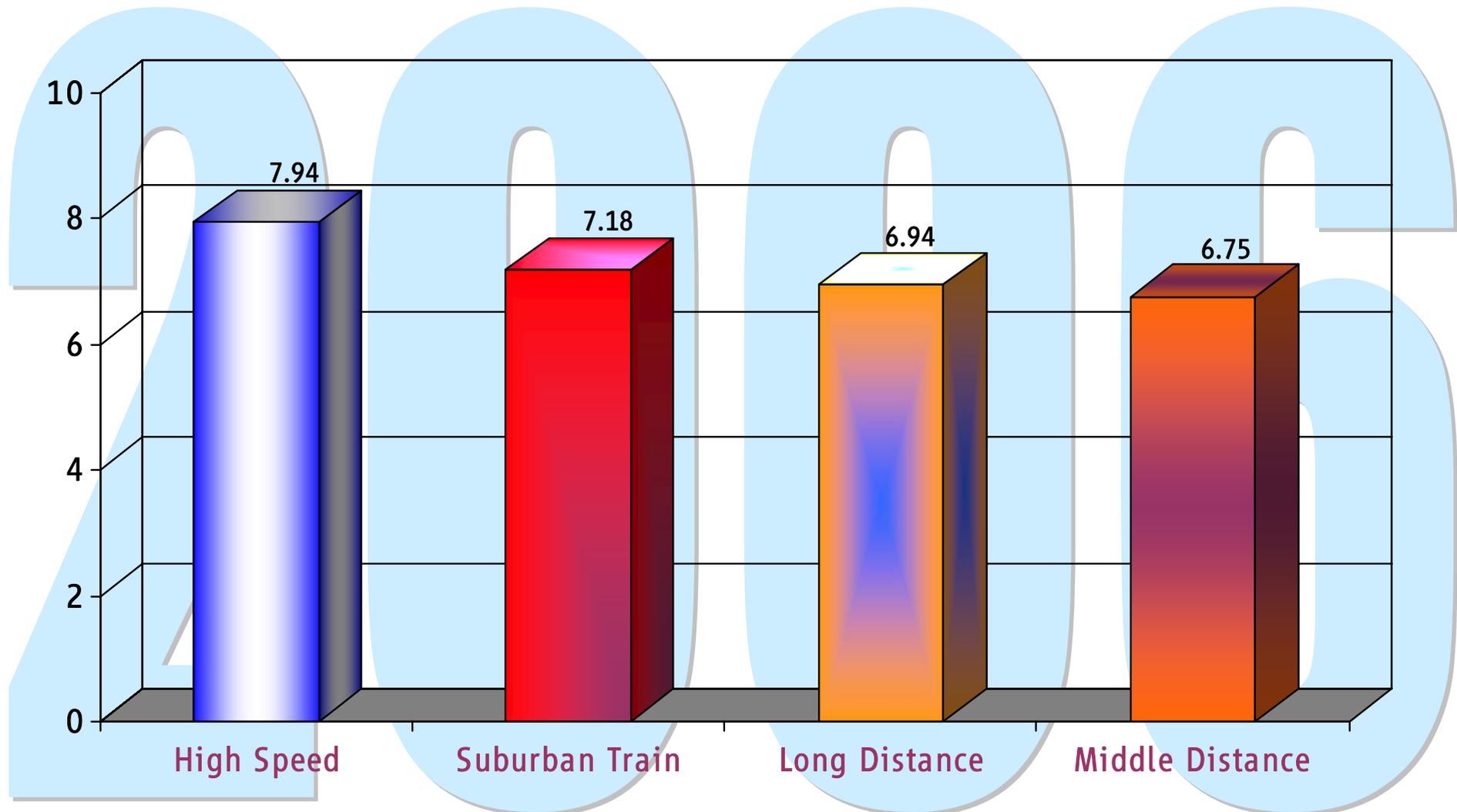
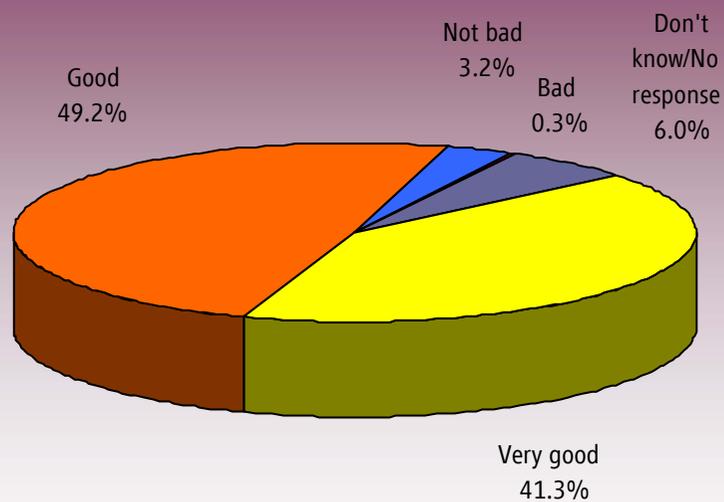
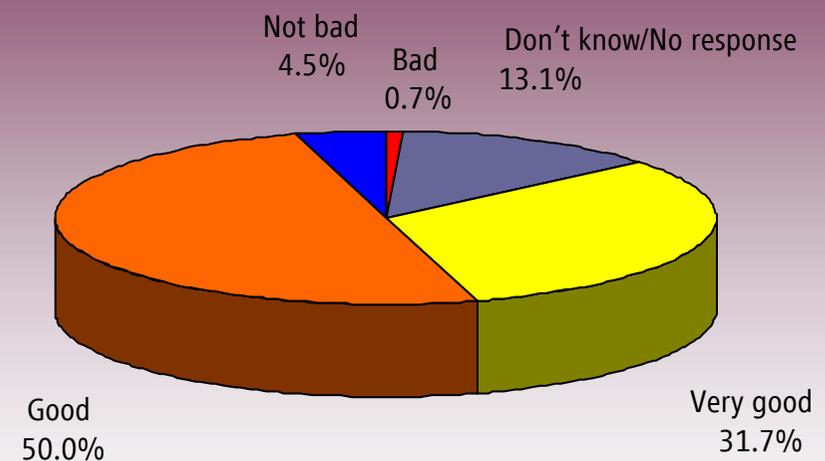


Image of AVE among the General Public

Residents in the corridor



Residents outside the corridor



Source: Study of the image of AVE among the Spanish population, December 2004



renfe

We're heading for the future.
Are you going to get on board?