

barcelona

EPF CONFERENCE 2011

**PTP's work to improve the Spanish public transport
The case of Train 2014 plan**

Museu Picasso, 12 de març de 2011

Ricard Riol Jurado

nosaltres promovem el transport públic

nosotros promovemos el transporte público

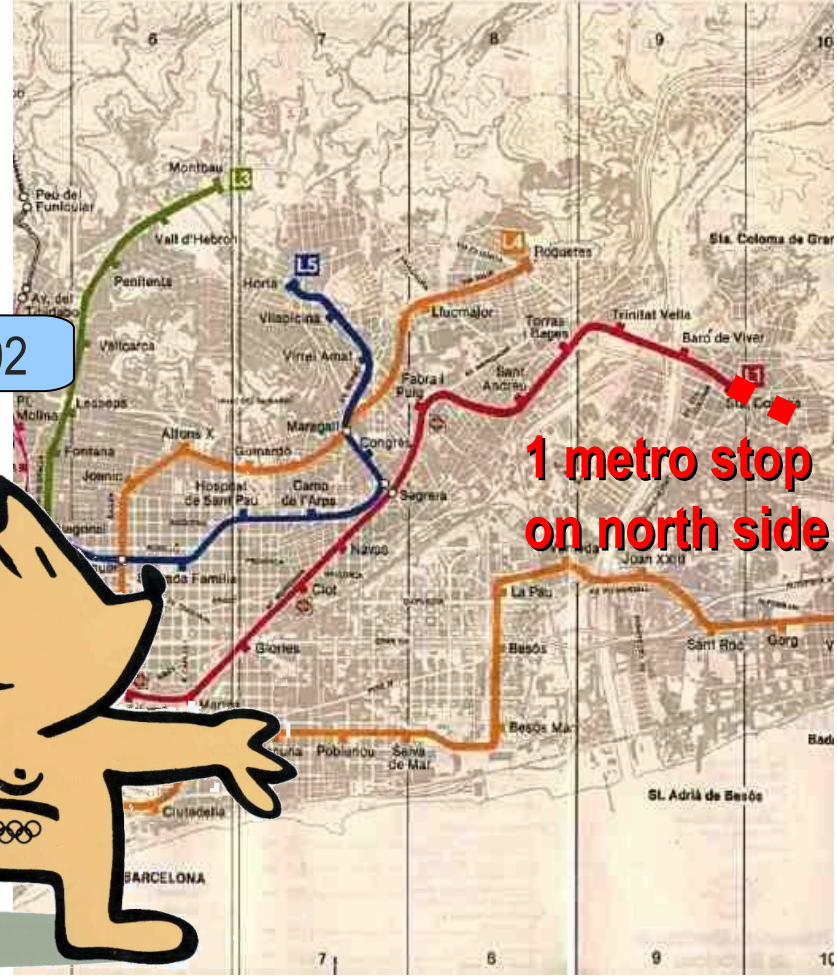
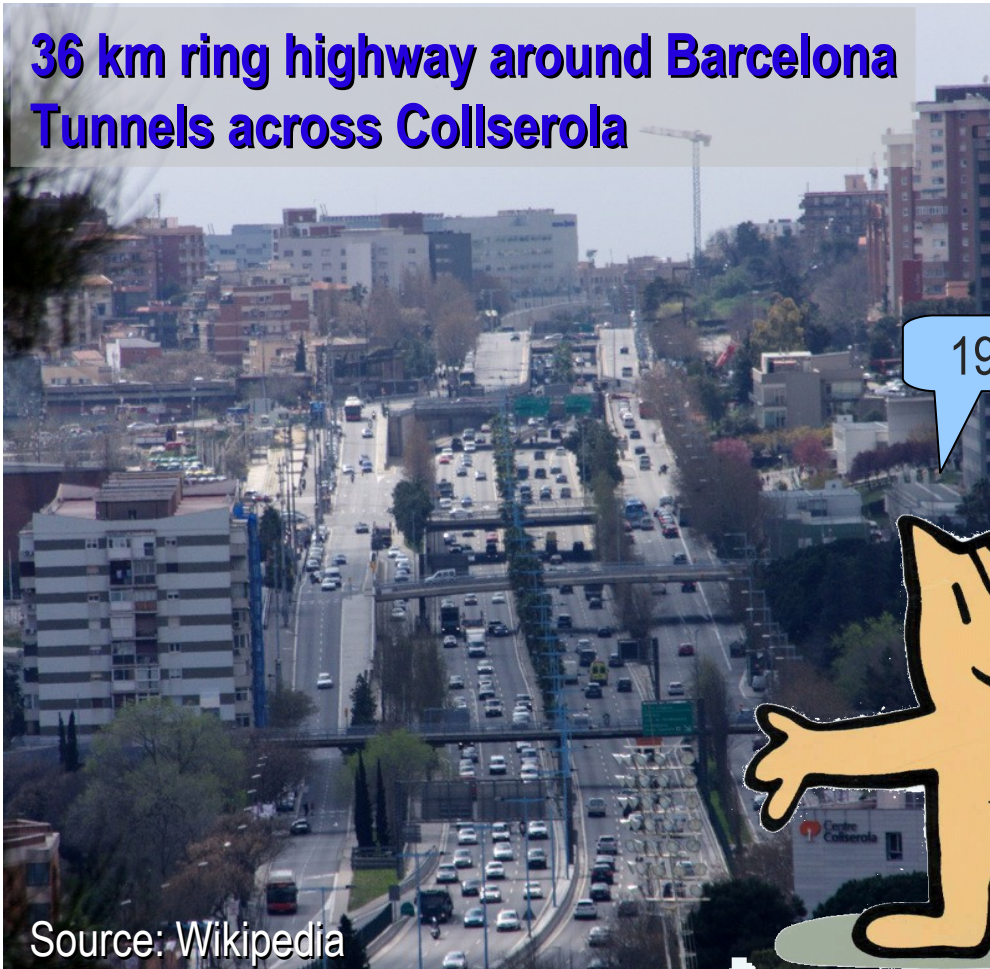
we promote public transport

nous faisons la promotion des transports publics

Wir fördern den öffentlichen Verkehrsmitteln

1 Why does the PTP exist?

**36 km ring highway around Barcelona
Tunnels across Collserola**



1992

1 metro stop
on north side



Source: Wikipedia

1 Why does the PTP exist?

Foundational and semi-reached objectives (1993)



Integrated fares
2001-current days...



Public administration for full mobility (public and private transit)
1996-current days...



Importation of Free car day for Catalonia
1999

Long term objectives

Promote sustainable mobility in a complex society (politicians included)

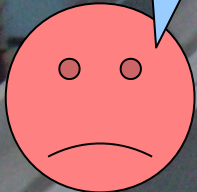
1 Why does the PTP exist?

We inaugurated city rings for the Olympic Games, in 1992

Yes, and we continue in congestion jam in rings and in inner city traffic

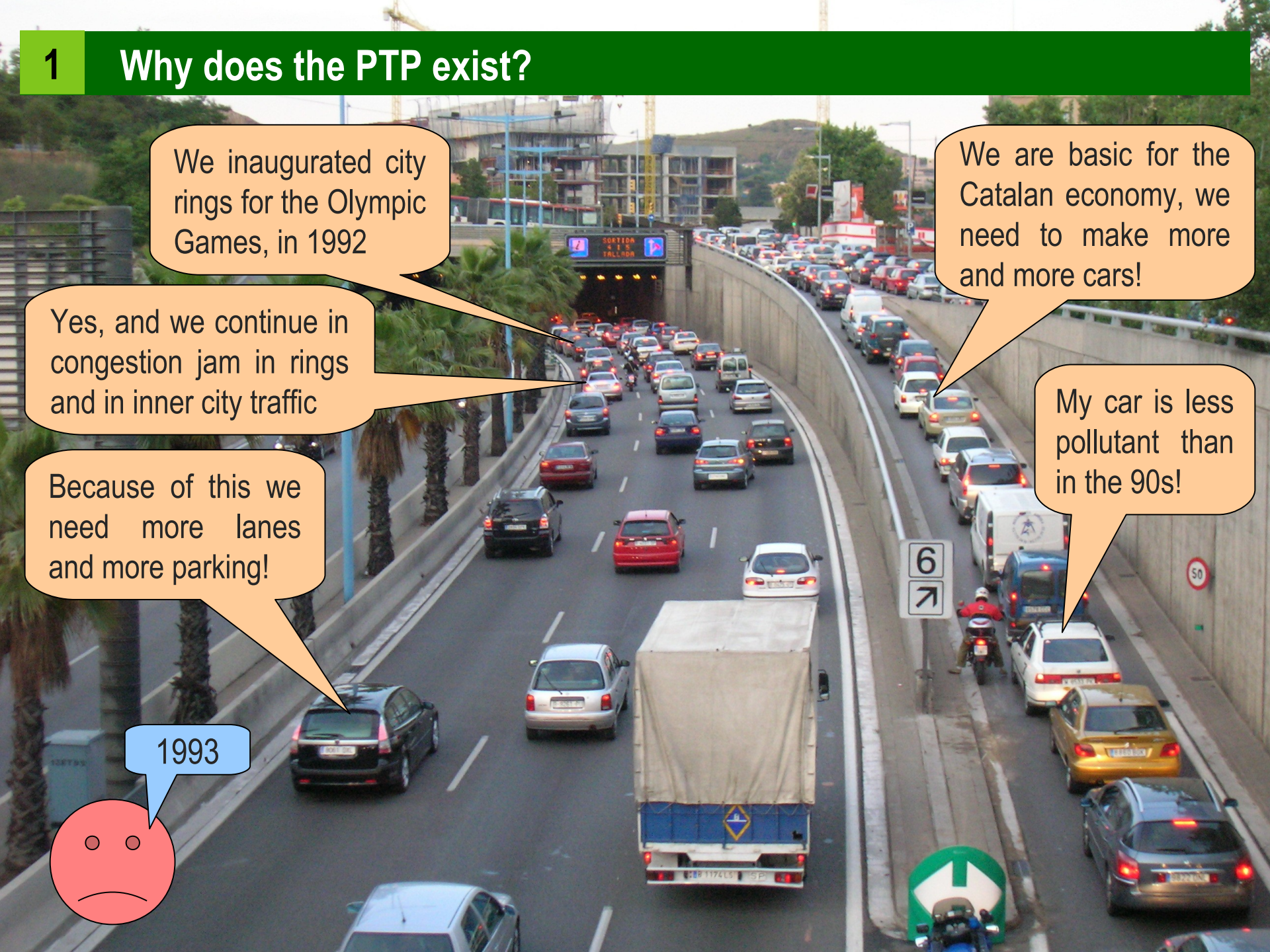
Because of this we need more lanes and more parking!

1993



We are basic for the Catalan economy, we need to make more and more cars!

My car is less pollutant than in the 90s!



1 Why does the PTP exist?

With less consumption of energy, public spaces, noise and pollution!

Yes, we can give transport to this people. Also we can generate the double jobs by passenger-km using the public transport

Benefits of PT are for “moving” people...



1 Why does the PTP exist?

Barcelona has 6,000 vehicles/km², double than Madrid and four times more than London!

Big problems of pollution inner city area, in one of the most dense metropolitan areas in Europe

... and all the population!

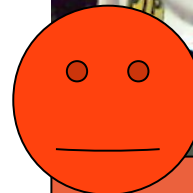


2 Our double strategy



SOCIAL PROMOTION

- Magazine
- Expositions
- School program
- Entertainment games
- Mobility races...



LOBBY FOR PUBLIC TRANSPORT

- Media
- Participation in public consultations
- Political debates
- Technical proposals...

2 Our double strategy

Our Holy Scriptures

**Sustainable
mobility**

**Private vehicle
restriction**

**Ecomobility
promotion**

**Compact and mixed
urbanism**

competitiveness

accessibility



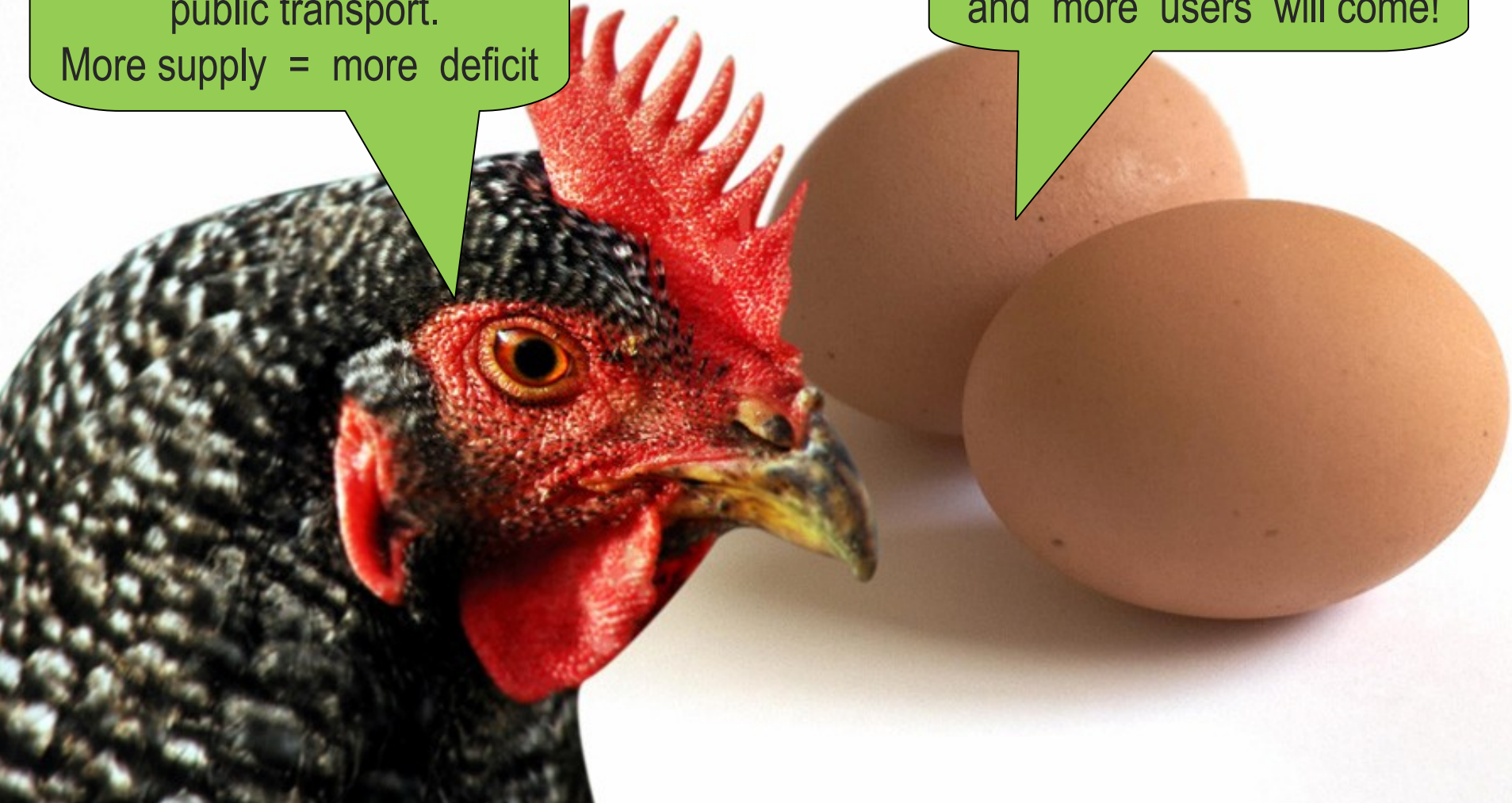
2

Our double strategy

We have to break eternal dilemmas...

Few people use
public transport.
More supply = more deficit

Put more public transport
and more users will come!



2 Our double strategy

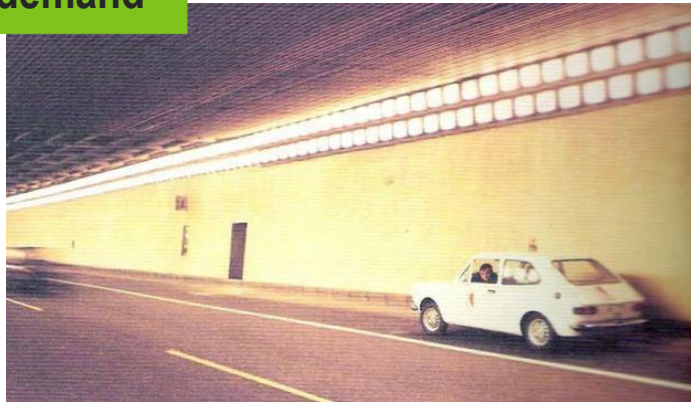
Nowadays relation between demand supply proceed from the 60s



Pull demand



Push demand



2 Our double strategy

There is a special passion for the infrastructures in Catalonia...

We need more infrastructures

We need more infrastructures

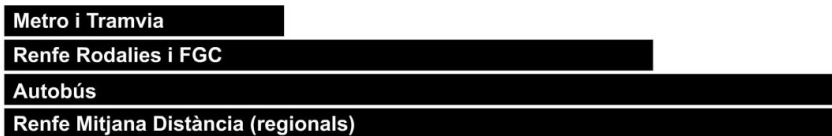
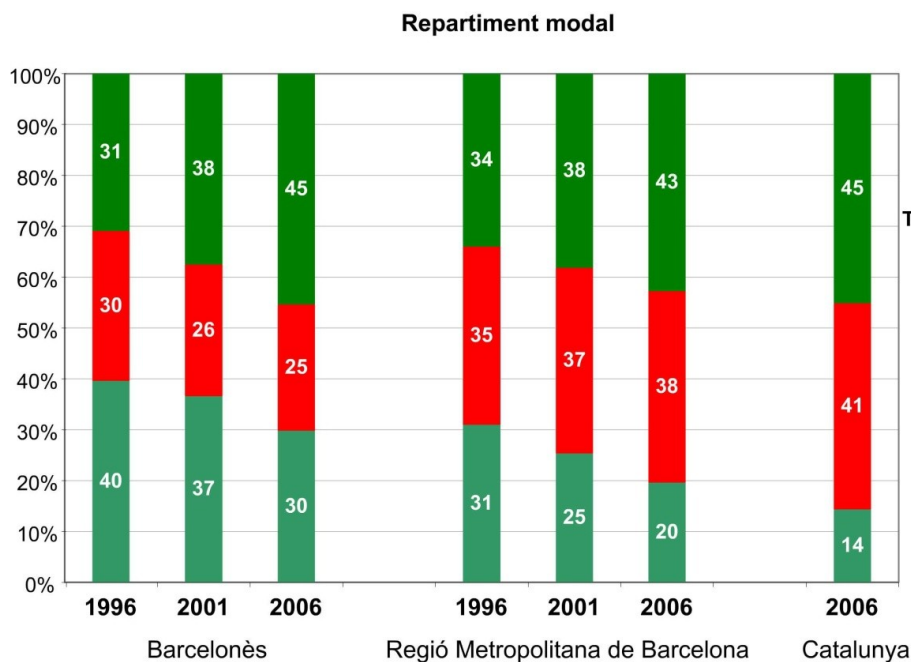
We need more infrastructures

Kilometers of infrastructure for every million people. Year 2005

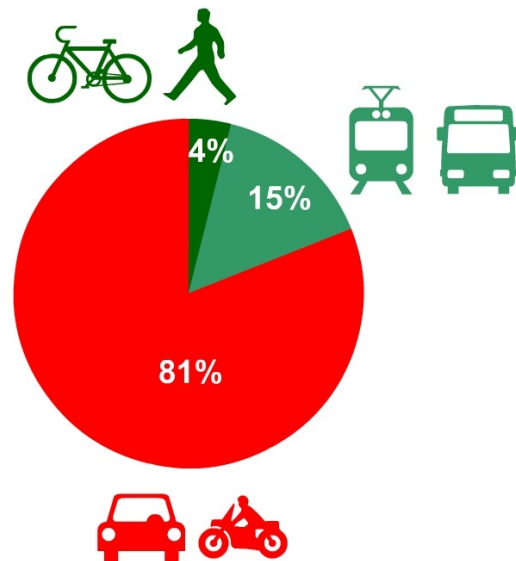
	Highway	Rail
Spain	239.2	334.3
Catalonia	185.8	240.8
EU 15	141.0	393.8
EU 25	124.7	433.3

2 Our double strategy

Person between 1981-2006 for BCN urban area, region and CAT.



Person*km in 2003 for CAT

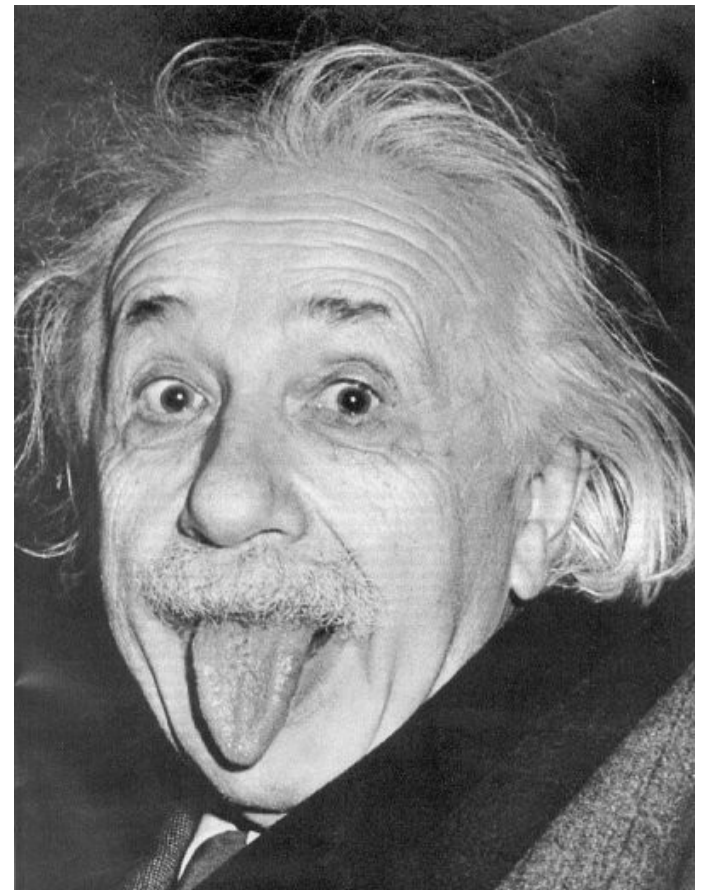


2 Our double strategy

**Insanity: doing the same thing
over and over again and
expecting different results.**

Albert Einstein

CATALAN PEOPLE:
Improve your railways instead
more and more highways!



3 We need a lobby for public transport

Automobile lobby



www.racc.es

It also provides travel and home insurances and care services with the Government.
1.000.000 people associated

Lobby for Sustainable mobility in Catalonia

Pedestrians



www.catalunyacamina.org

Ciclysts



www.bacc.info

Road Safety



www.pat-apat.org

Public Transport



www.transportpublic.org

3 We need a lobby for public transport

By historical reasons...



1970: First spanish motorway: Barcelona – Mataró
Pre-OPEC crisis times...



1971: Tramways of Barcelona
shut down

3 We need a lobby for public transport

By current reasons...

Seat Altea



Font: Youtube

Seat Altea



<http://www.youtube.com/user/laptp#p/u/16/S6Nzd9TggEE>

3 We need a lobby for public transport



**We need to increase public transport presence in our Parliament...
In modal split and in the debates!**

4 We need social promotion of PT

MOBILITY AND CLIMATE CHANGE EXPOSITION “Move with the planet”.



**Mou-te amb
el planeta!**



<http://www.youtube.com/user/laptop#p/u/10/Sabq40moB7s>

4 We need social promotion of PT



MOBILITY RACE. 11 municipalities celebrated it in 2010. 6 editions in Barcelona. Several routes demonstrate every year that two wheels and public transport are the most efficient in city, in travel time and costs.

4 We need social promotion of PT



“The sustainables”. Videogame for the schools

4 We need social promotion of PT



SENSE COTXE A LA CIUTAT (Oca de la mobilitat)



CREACIÓ DE XAPES



RULETA DE LA MOBILITAT



MOBIMEMORY



Child games for entertainment and learning

5 PTP proposals for improving our country




- Formula for creation of stable jobs
- Increases the capacity and the economical benefits of the city and the country
- Increases the public health and quality of your environment
- Reduces de climate change
- Improves de public space and road safety



5.1 Democratization of Barcelona highways

120

3 lanes

- 
- No civil works
 - Increasing the safety in roads
 - Reducing consumption and emissions
 - Time travel for cars: Only 15 seconds more for every km
 - And it could improve the public transport!

80

3 lanes + 1 for PT

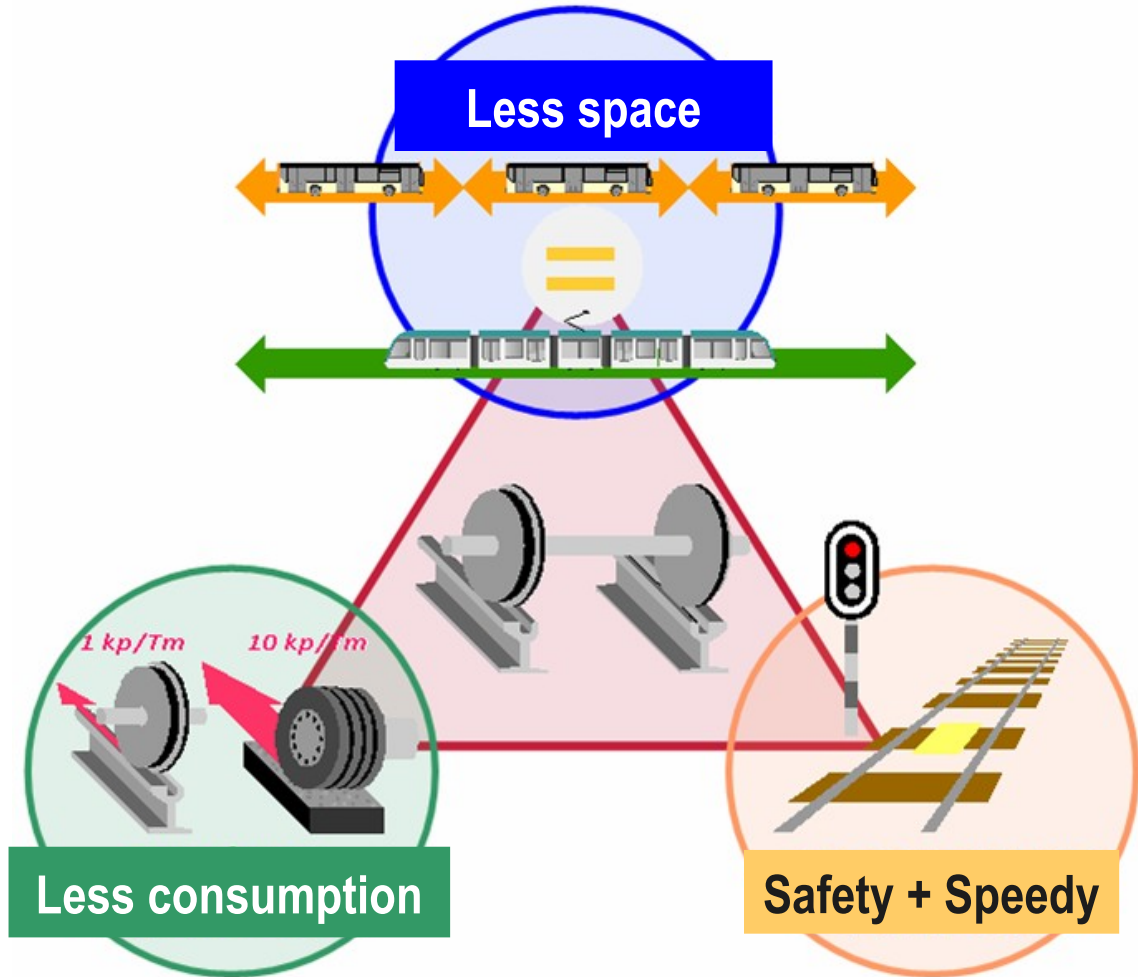


<http://www.youtube.com/user/laptp#p/u/12/XHOT0HwSQXQ>

5.1 Democratization of Barcelona highways



5.2 We believe in railways. Because of it, we need plan them better



5.2 We believe in railways. Because of it, we need plan them better



100



10

476
seated
passengers

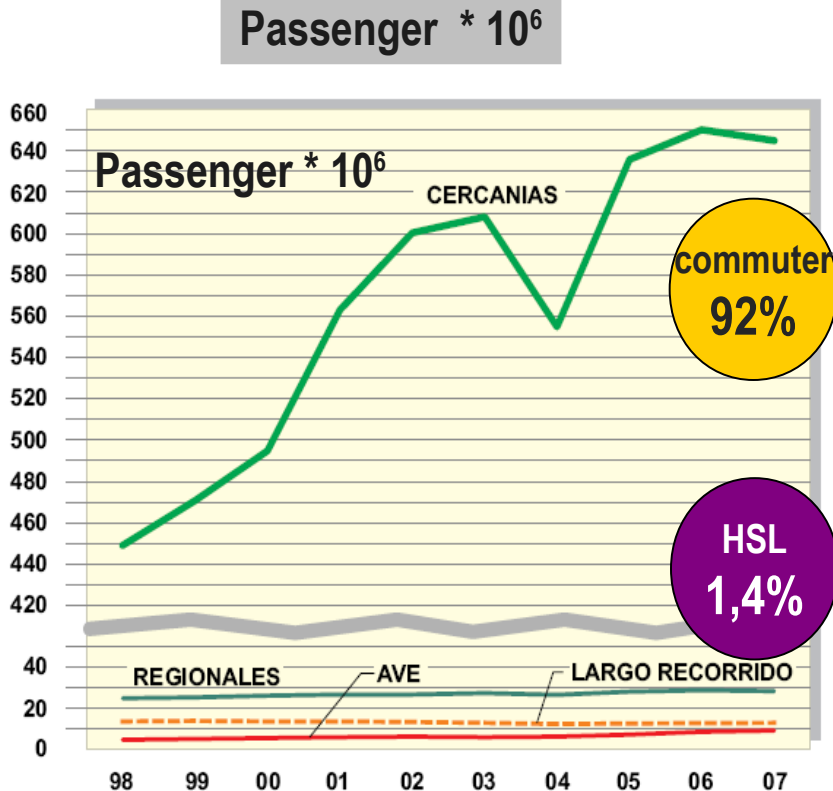


160

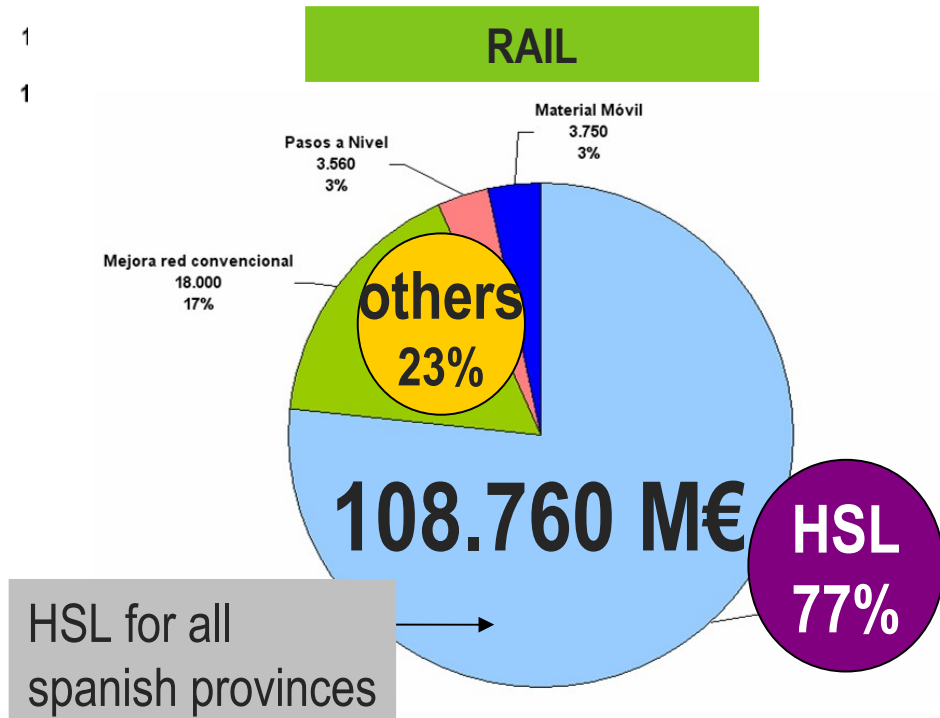
Source: PTP

5.2 We believe in railways. Because of it, we need plan them better

Passengers of Renfe. Year 2007



PEIT. Rail and Road Infrastructure plan for Spain. Year 2005-2020



5.2 We believe in railways. Because of it, we need plan them better

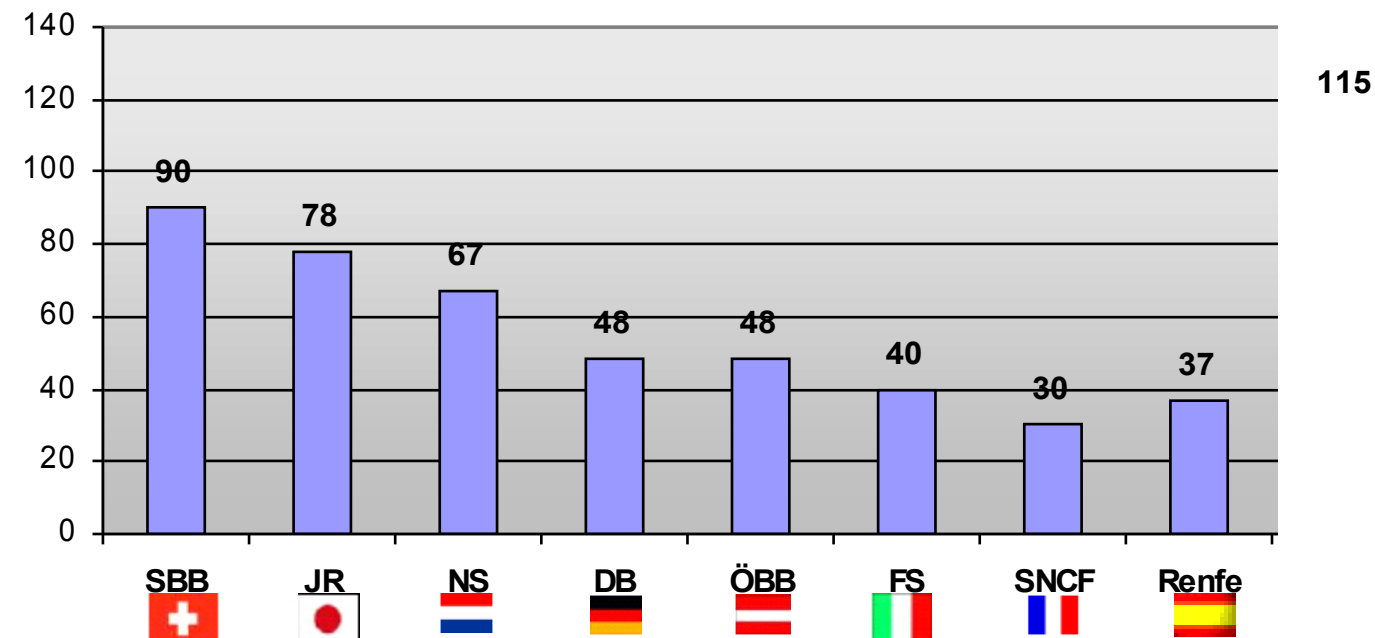
“Spain will be the country with more kilometers of highways and HSL (2.230 km)” said our Ministry of Transports. “The Spanish highways network was the someone with biggest growth in the 90's”, according to Eurostat.

Modal split for passengers 2008

	Private	Bus	Rail
Spain	80	14	6
EU 15	84	9	8
EU 25	84	9	7

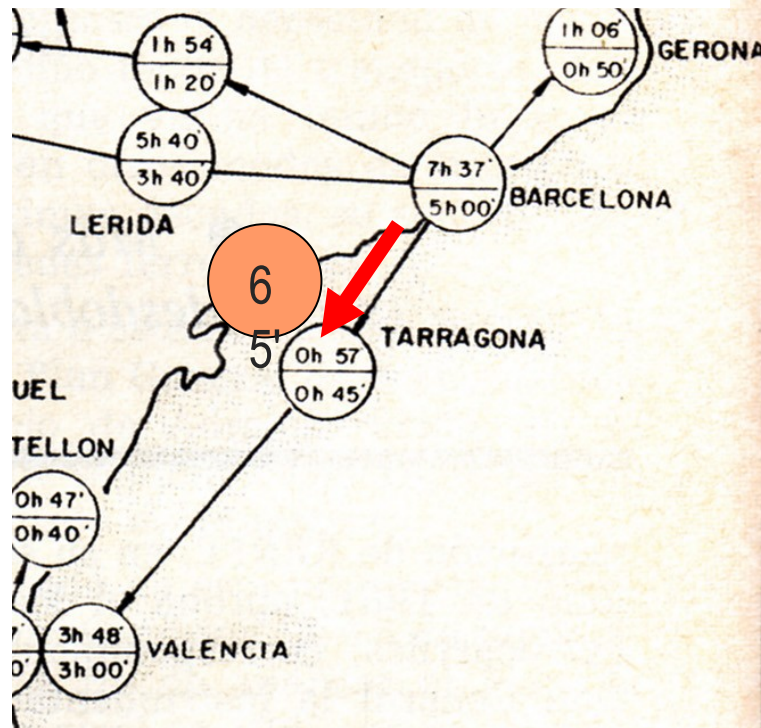
5.2 We believe in railways. Because of it, we need plan them better

Trains for each km of track every day (train*km/km network). Year 2005



5.2 We believe in railways. Because of it, we need plan them better

The 80's in Spain. Modernization of main lines and important plans for improve commercial speed, but never executed. Instead of this, new HSL has been built, but too far from Tarragona city.



Source:
*General Plan
for Railways,*
1981



5.2 We believe in railways. Because of it, we need plan them better

Barcelona Sants <> Tarragona Centre

2003



Conventional line

Travel time:

Catalunya Exprés: 55'-60' (now **65'**)

Fare 6,45 €

2008



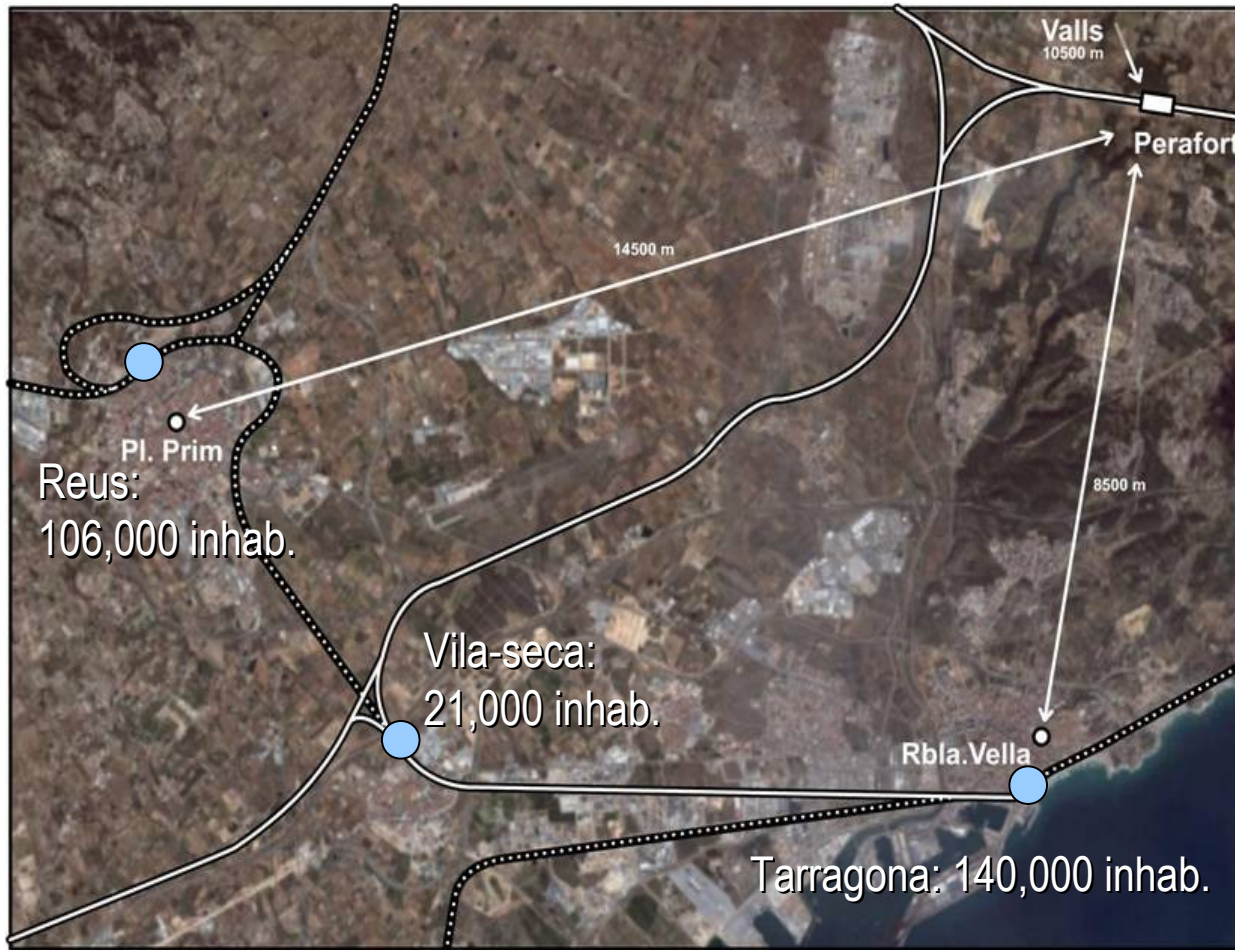
HSL

Travel time:

Renfe Avant 36' + transfer + Bus 15' = > 60'

Fare: 12 + 1,30 €

5.2 We believe in railways. Because of it, we need plan them better



The station of HSL line for Tarragona is in the middle of the field.

It's a paradox thinking that a new line will improve the regional transport and reduce the congestion of the old line when it doesn't serve the center of cities as classic line does.

Only 14 people / train between Camp de Tarragona-BCN.

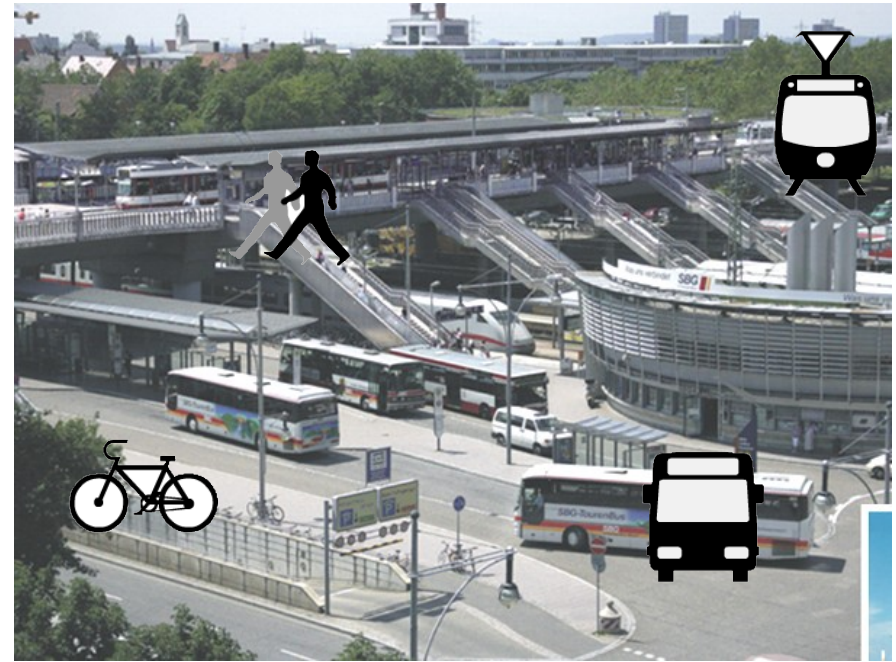
Only 5% people arrive to the station by public transport

5.2 We believe in railways. Because of it, we need plan them better

Camp de Tarragona

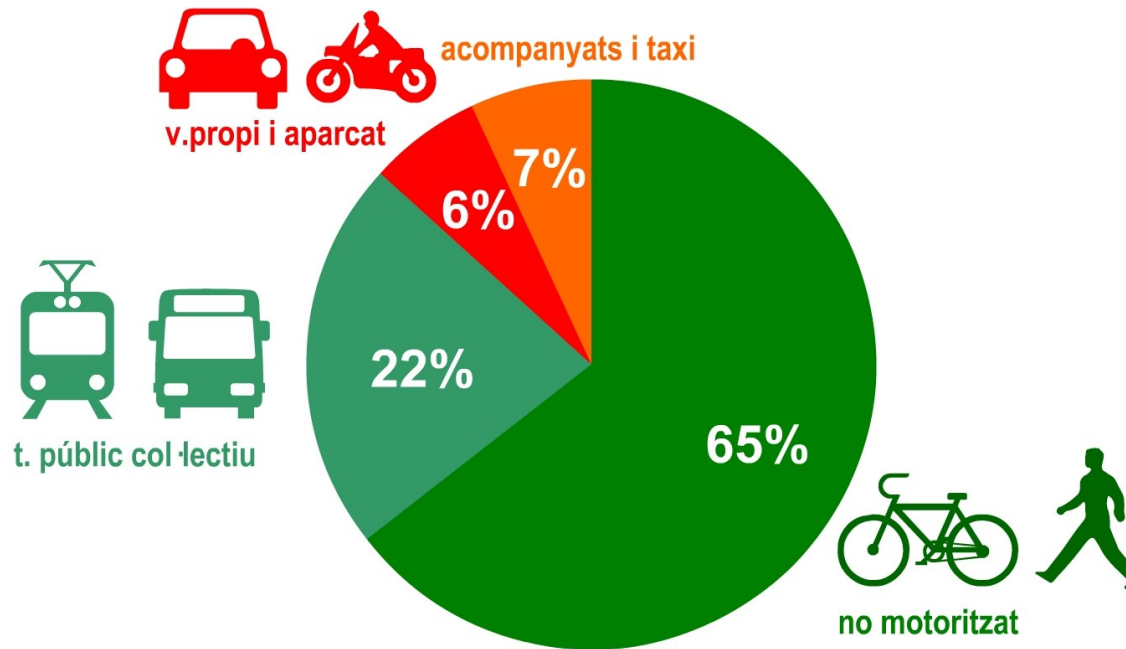


Freiburg Hauptbahnhof



5.2 We believe in railways. Because of it, we need plan them better

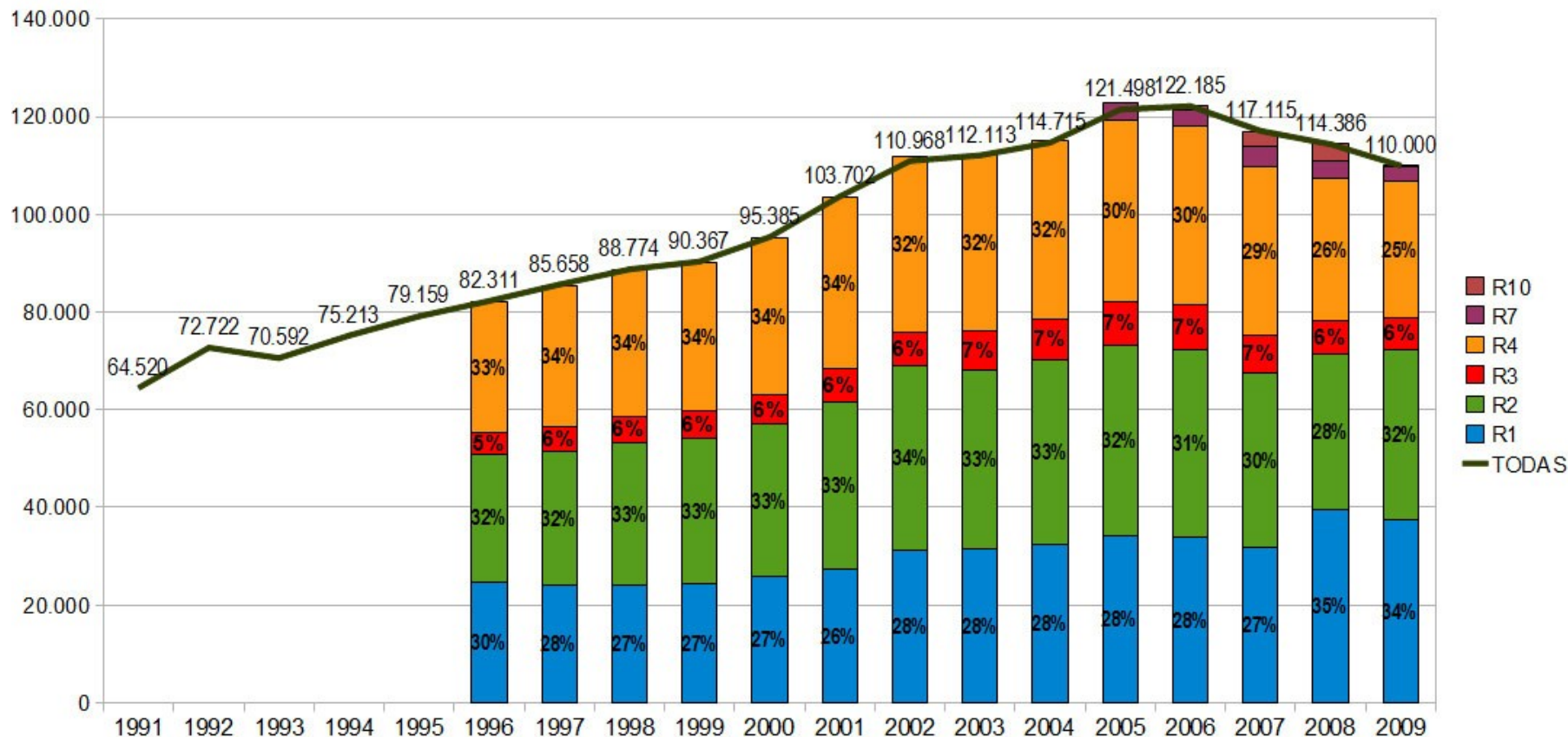
How people arrives to train stations in Barcelona commuter services?



5.2 We believe in railways. Because of it, we need plan them better

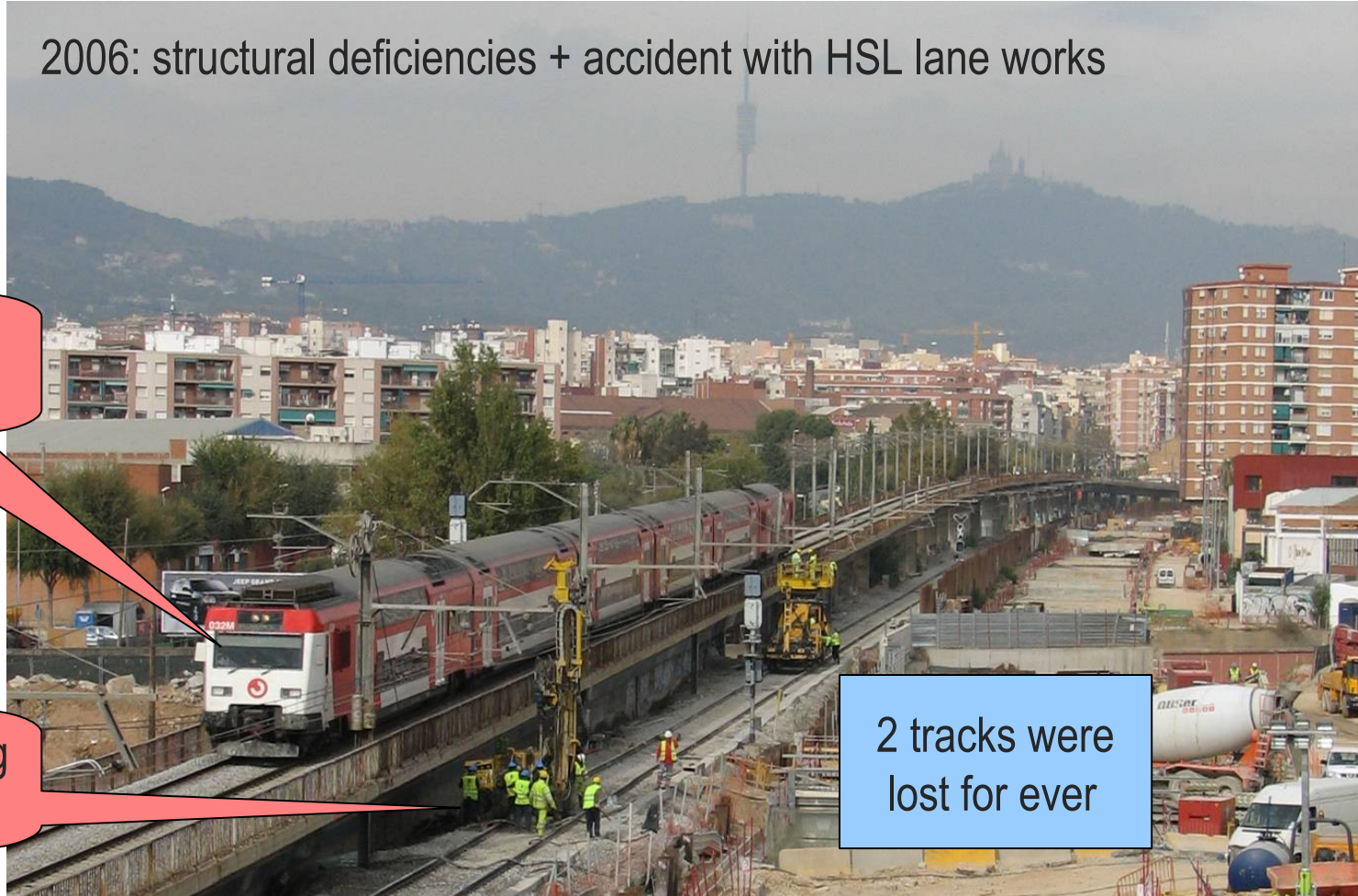
Barcelona commuter service (Renfe)

1996-2006: +50% of demand. Very low public investment



5.2 We believe in railways. Because of it, we need plan them better

2006: structural deficiencies + accident with HSL lane works



:@#~€#|*!!!!!!

Wops! Something
is wrong!

2 tracks were
lost for ever

5.2 We believe in railways. Because of it, we need plan them better

While economical lobbies are only worried by the arrival date of HSL to Barcelona, society integrated by public transport users, syndicates, consumers and neighbor's associations were claiming to give more priority to conventional network.



5.2 We believe in railways. Because of it, we need plan them better

We're not situated as an opposition HSL association, but we have to be exigent with public investments. Because of this, we planned in 2006 a new strategy for Catalan railways called **Pla Tren 2014**. Inspired in Swiss **Bahn 2000**, these are the main facts of the plan:

- For avoiding disappointments, infrastructure has to be subordinated to services plan, not planning first infrastructures and later.
- We can't afford pharaonic investments, like the HSL line (one time every 50 years). We must minimize inversions and maximize services. Train 2014 is a large list of interventions that improve the network immediately and they can increase its benefits when they could work simultaneously

While rails are planned...



... roads are built



5.2 We believe in railways. Because of it, we need plan them better

- We compared travel times between highways and current trains. We have to act!
- We have to solve current problems instead of planning new HSL for the next decades. Now we have important problems of **capacity and speed** for passengers and freight.

1997...



© 2007 Bernat Borràs www.trenscat.cat



Source: www.trenscat.cat

5.2 We believe in railways. Because of it, we need plan them better

- We have to pay attention to most demanded services and freight transport. In Catalonia main services are commuter and regional trains.
- We have to integrate HLS with conventional lines, like a highway works in a road network, for taking the most profit of new rails. **We have to plan accessibility, not only speed.**



5.2 We believe in railways. Because of it, we need plan them better

- We can introduce tram-trains for the expansion of railway in low-dense or semi-dense urban areas, instead of expensive tunnels.
- We propose a transparent criteria for expand the passengers network: towns with a population of 30,000 inhabitants and regional districts with 50,000 inhabitants, in most populated city. It would serve the 94% of Catalan people.



5.2 We believe in railways. Because of it, we need plan them better

The increasing of the commercial speed of regional trains near BCN through an innovative strategy (1):

- Planning the addition of the 3rd and 4th track in south corridor, where commuter trains are inhibiting competitive speed for direct and regional trains.
- We recover a proposal from the 80's
- We connect it with a 3rd iberian gauge tunnel in BCN.



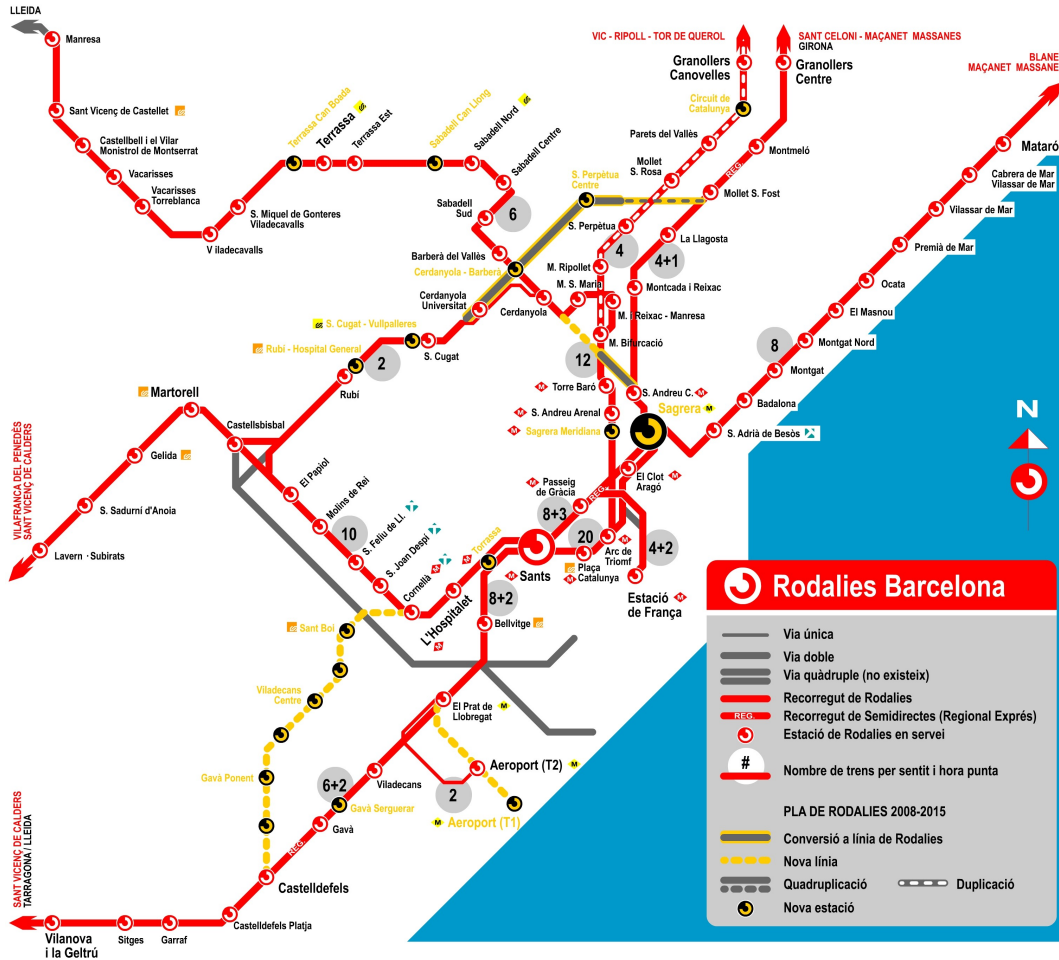
5.2 We believe in railways. Because of it, we need plan them better

The increasing of the commercial speed of regional trains near BCN through an innovative strategy (2):

- Using HSL between future station of La Sagrera and the surroundings of Granollers, in north corridor.
- Implementation of third rail for UIC gauge in conventional lines of Puigcerdà and Portbou (they reach France)
- Using bi-tension trains, for 25,000 Vca and 3,000 Vcc



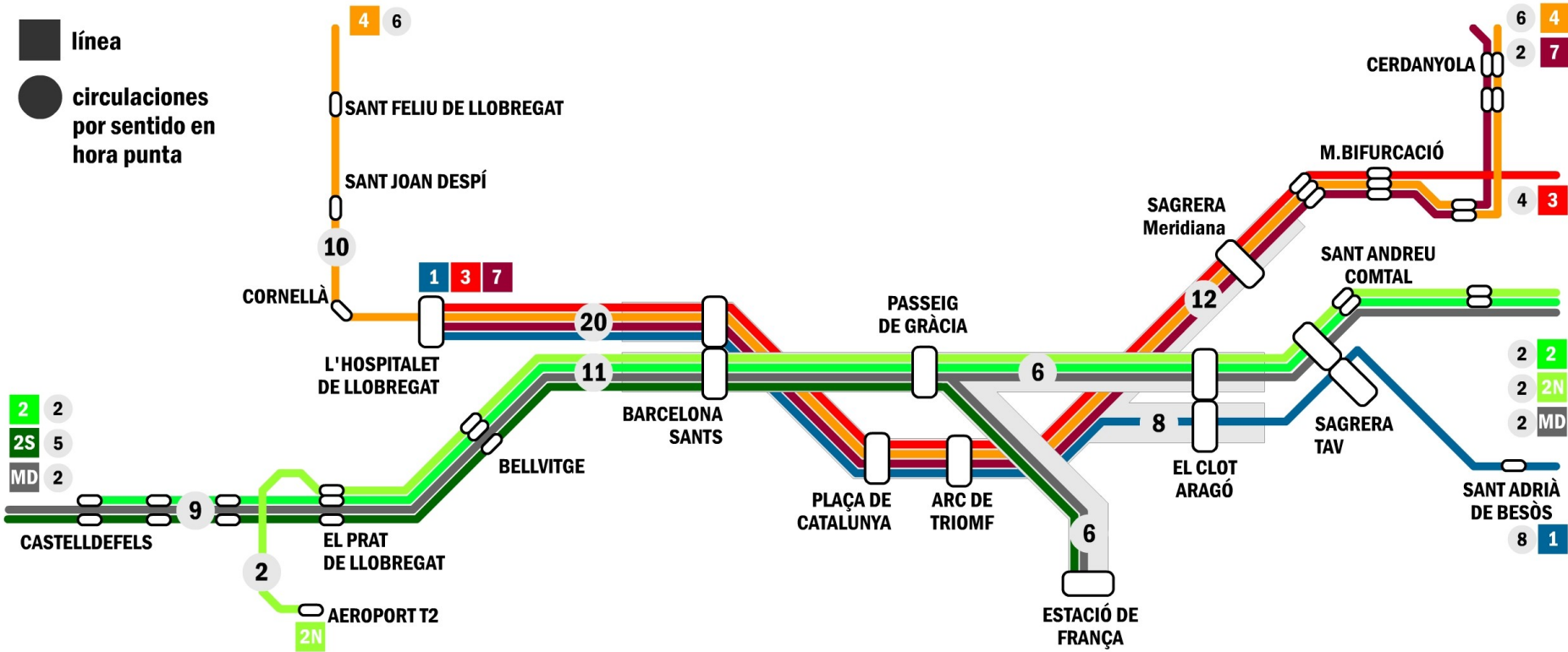
5.2 We believe in railways. Because of it, we need plan them better



We have 20 circulations in each sense in Plaça Catalunya tunnel. Low for a metro, too much for a multiple destination trains.

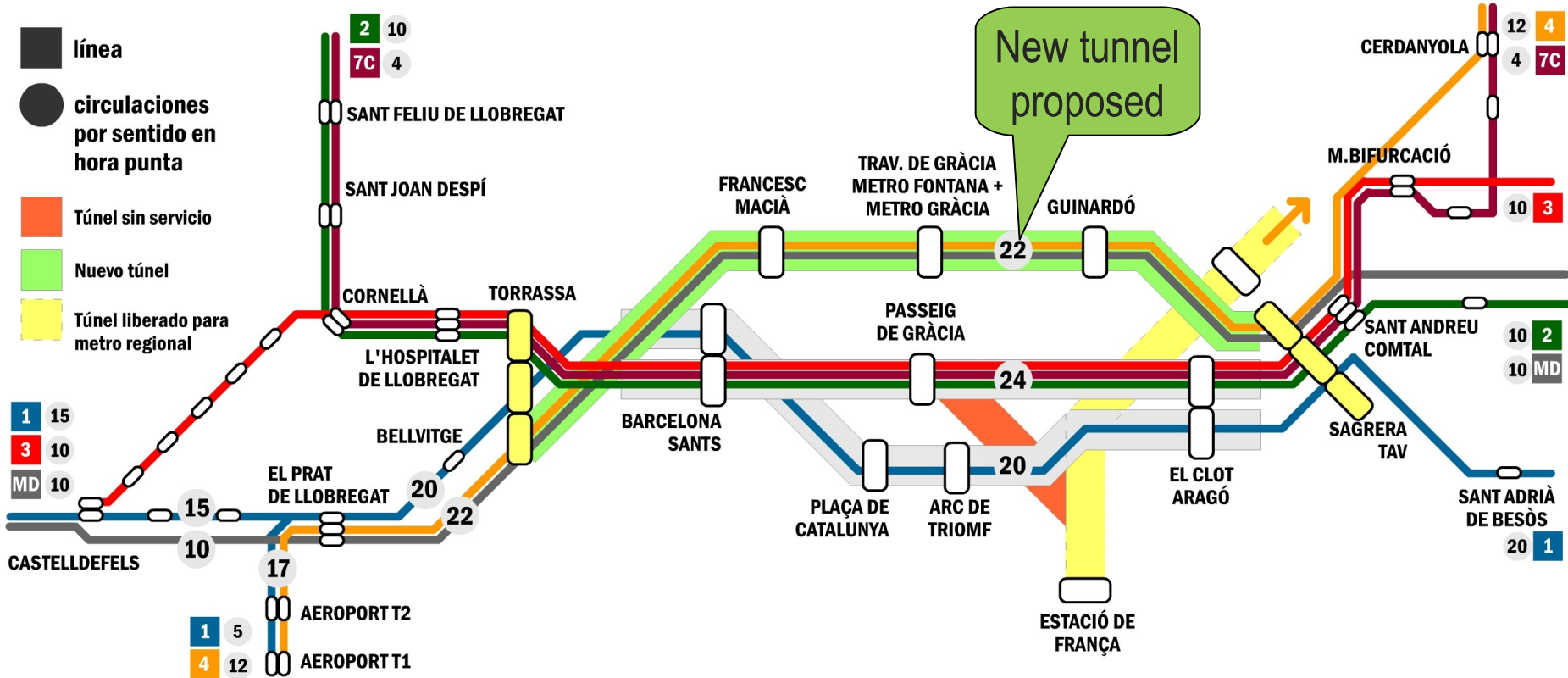
5.2 We believe in railways. Because of it, we need plan them better

Current situation in rush-hour



5.2 We believe in railways. Because of it, we need plan them better

Third tunnel in iberian gauge connected to current them in Torrassa and Sagrera



5.2 We believe in railways. Because of it, we need plan them better

LOCAL AND METROPOLITAN LINES



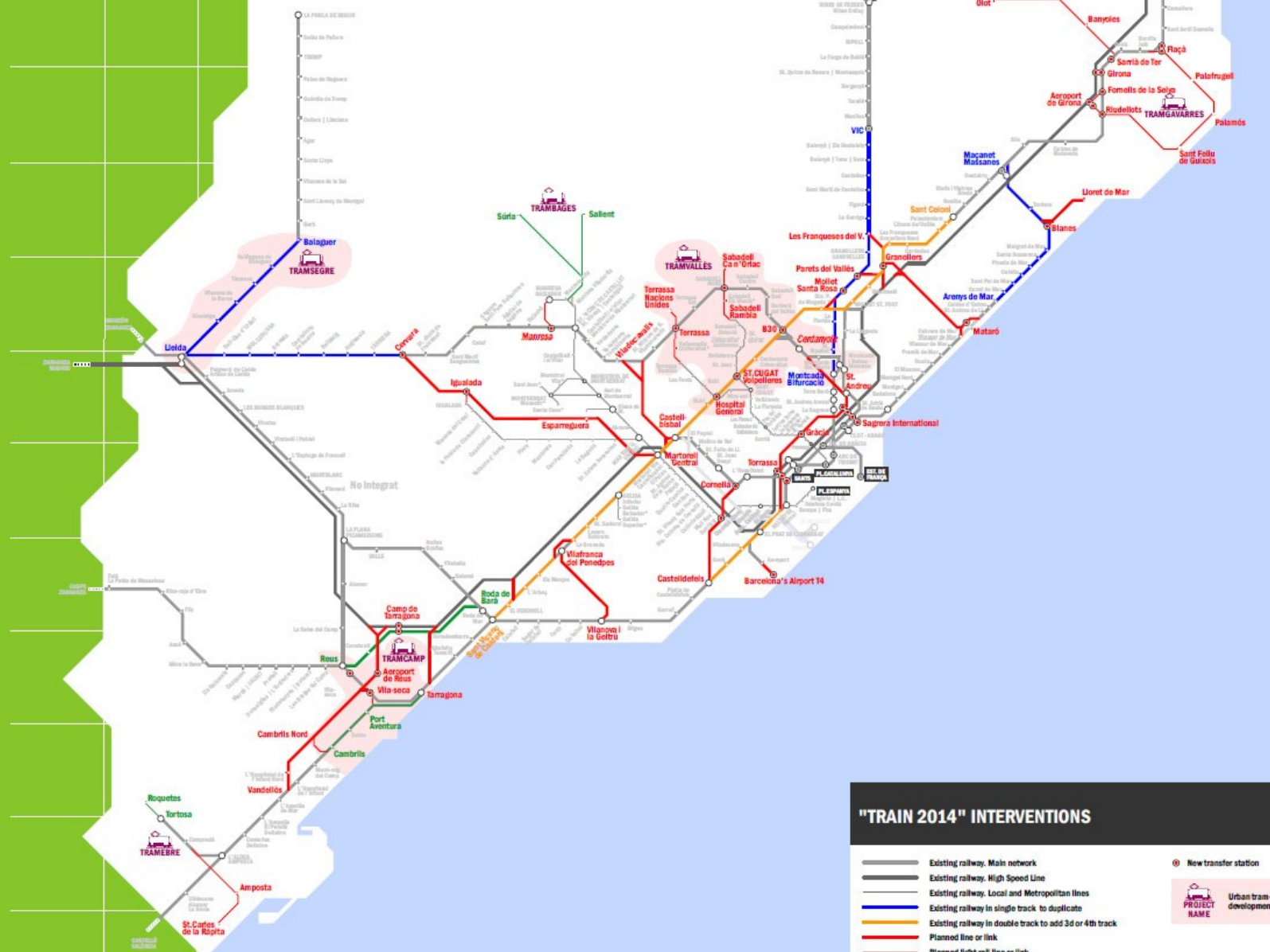
- Metropolitan services on main network
- Local and metropolitan services in dedicated network












REGIONAL AND EXPRESS LINES



- Regional and express services on main network
- Regional and express services on high speed line

PLA TREN 2014



-  Existing railway, Main network
 -  Existing railway, High Speed Line
 -  Existing railway, Local and Metropolitan lines
 -  Existing railway in single track to duplicate
 -  Existing railway in double track to add 3d or 4th track
 -  Planned line or link
 -  Planned light rail line or link
 -  Existing track or explanation for fully renewal
-  New transfer station
 -  Urban tram-train development zone
 -  PROJECT NAME

5.2 We believe in railways. Because of it, we need plan them better

	Duplication of tracks (km)	Addition of a third or fourth track (km)	Extension for passenger and freight (km)	Light- railway extension for passenger (km)	Conversio n (km)	TOTAL (km)
Phase 1	30,8	40,8	80,8	16,5	18,7	187,6
Phase 2	47,85	27,2	0	78,75	55,65	209,45
Phase 3	126	127	119,5	0	12	384,5
TOTAL	204,65	195	200,3	95,25	86,35	781,55

The same inversion that new HSL line linking Girona and Lleida through Manresa or current HSL line between Madrid and Barcelona ($7 \cdot 10^9$ €)!

5.2 We believe in railways. Because of it, we need plan them better

- Majority of Catalan Parliament supports 2014 plan in 2007, with several and different parties
- Nowadays party in Catalan Government has confirmed the support given to us when they were in opposition.
- Some changes in urban planning: 3rd and 4th tracks added, a third Iberian gauge tunnel in Barcelona, etcetera.
- Train 2014 is nominated for UITP PtX2 awards that will be delivered in Dubai on 14th April, 2011.
- But main ideas are competence of State. Will they agree with Train 2014 plan?



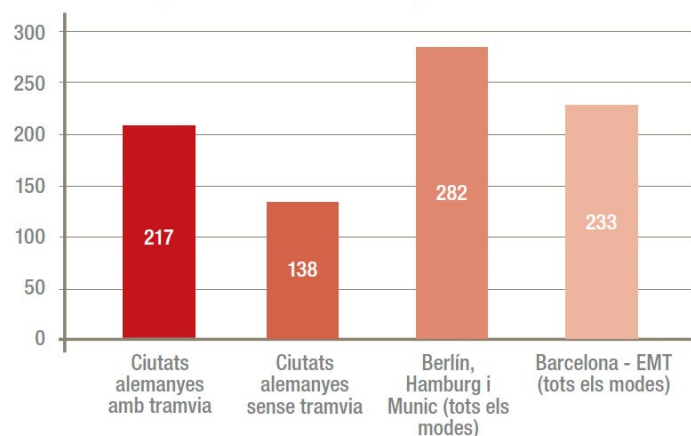
5.3 Urban lessons: less concrete and more intelligence

*“If you plan for cars and traffic, you get cars and traffic.
If you plan for people and places, you get people and places”.*
Fred Kent. Nova York



5.3 Urban lessons: less concrete and more intelligence

Nombre de viatgers en TP / habitants i any



BCN urban area: 233 pax/hab

Berlin-Hamburg-Munic: 282 pax/hab

German city with tram: 217 pax/hab

German city only bus: 138 pax/hab

Spanish cities: 68 pax/hab.

Sabadell: 66 pax/hab.

Terrassa: 55 pax/hab.

Freiburg: 342 pax/hab.

Ciutats amb tramvia, a més del bus

Ciutat	Habitants	Passat/any	Viatges/hab. any
Bielefeld	324.000	41.000.000	127
Mannheim	310.000	68.000.000	219
Karlsruhe	289.000	109.000.000	377
Augsburg	263.000	54.000.000	205
Braunschweig	246.000	37.000.000	150
Chemnitz	245.000	42.000.000	171
Krefeld	236.000	41.000.000	174
Friburg	219.000	70.000.000	320
Efurt	203.000	36.000.000	177
Mainz	198.000	46.000.000	232
Kassel	194.000	40.000.000	206
Potsdam	151.000	27.000.000	179
Heidelberg	145.000	40.000.000	276
Darmstadt	142.000	31.000.000	218
Würzburg	135.000	35.000.000	259
Heilbronn	121.000	20.000.000	165
Ulm	121.000	30.000.000	248
Jena	103.000	21.000.000	204
Mitjana	202.500		217

Variació mitjana de passatgers en ciutats amb tramvia i sense tramvia: 57%

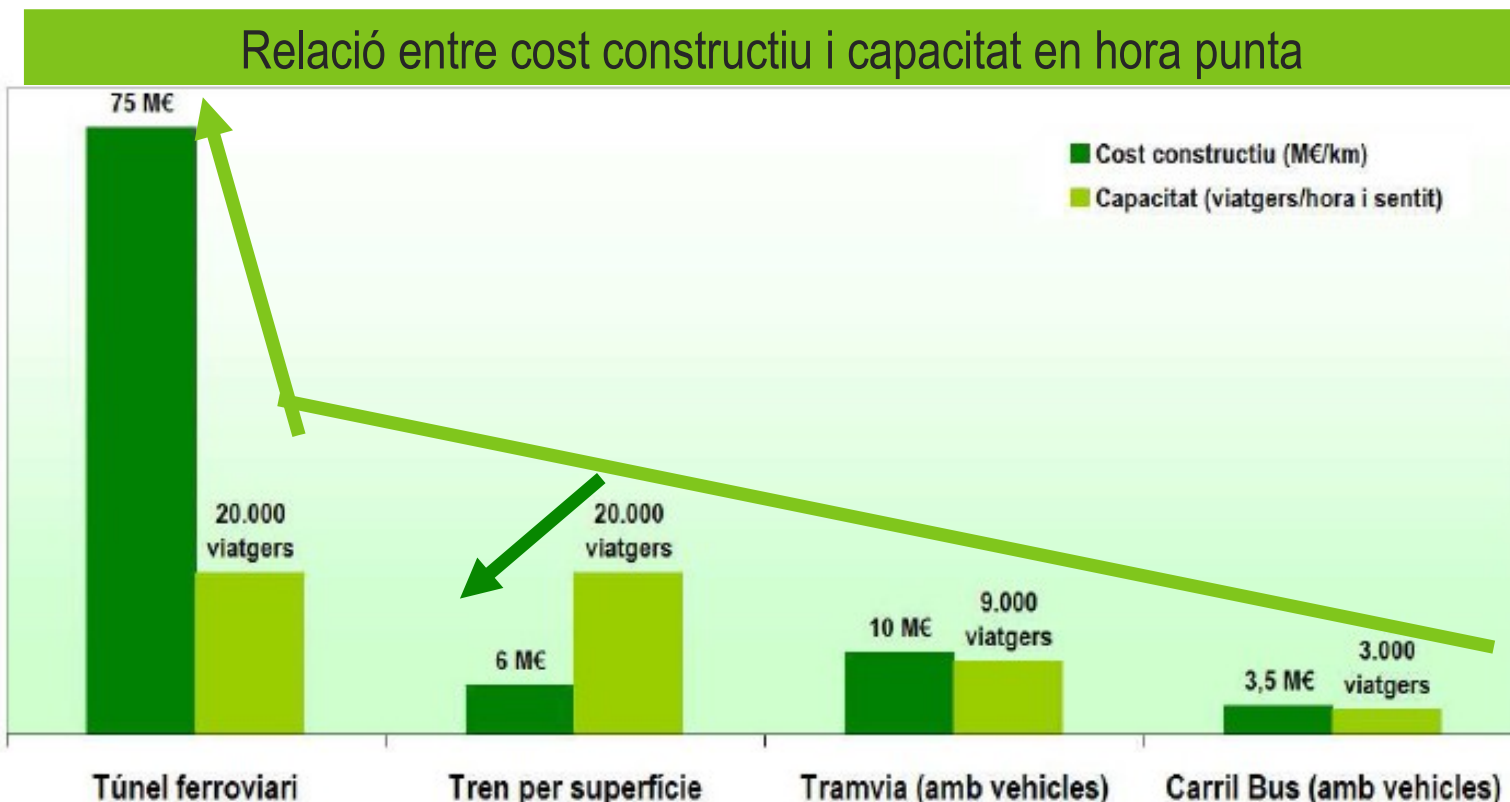
Dades de 2008 i 2009

Ciutats sense tramvia, només bus

Ciutat	Habitants	Passat/any	Viatges/hab. any
Münster	272.000	33.000.000	121
Wiesbaden	275.000	47.000.000	171
Mönchengladbach	260.000		
Mönchengladbach (Àrea metropolitana)	310.000	48.000.000	155
Aachen	260.000		
Aachen (Àrea metropolitana)	570.000	62.000.000	109
Kiel	236.000	33.000.000	140
Lübek	211.000	27.000.000	128
Hagen	194.000	38.000.000	196
Hamm	183.000	13.000.000	71
Osnabrück	163.000	36.000.000	221
Solingen	162.000	24.000.000	148
Oldenburg	160.000	16.000.000	100
Regensburg	132.000		
Regensburg (Àrea metropolitana)	280.000	33.000.000	118
Ingolstadt	123.000	12.000.000	98
Göttingen	121.000	18.000.000	149
Reutlingen	113.000	15.000.000	133
Elangen	104.000	14.000.000	135
Trier	104.000	16.000.000	154
Mitjana	210.647		138

5.3 Urban lessons: less concrete and more intelligence

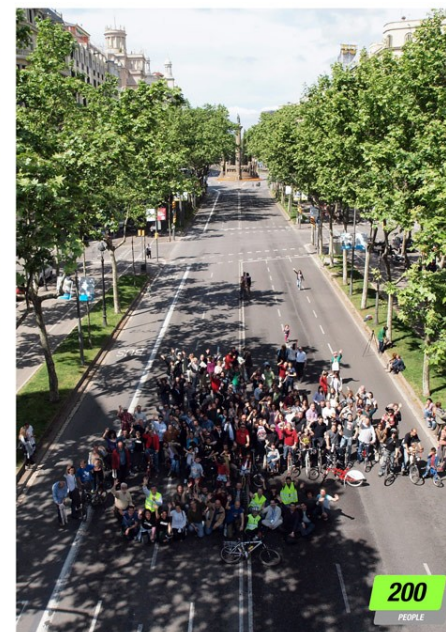
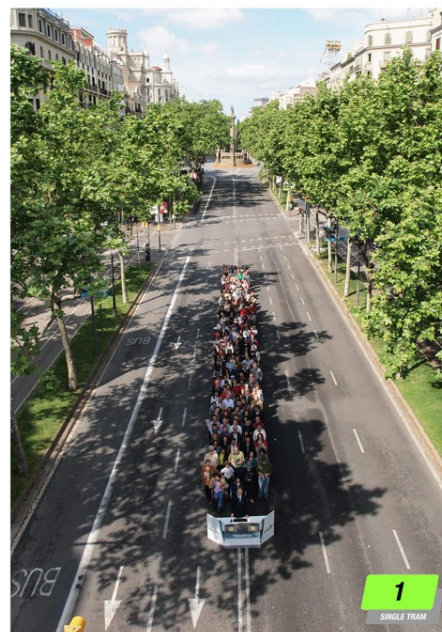
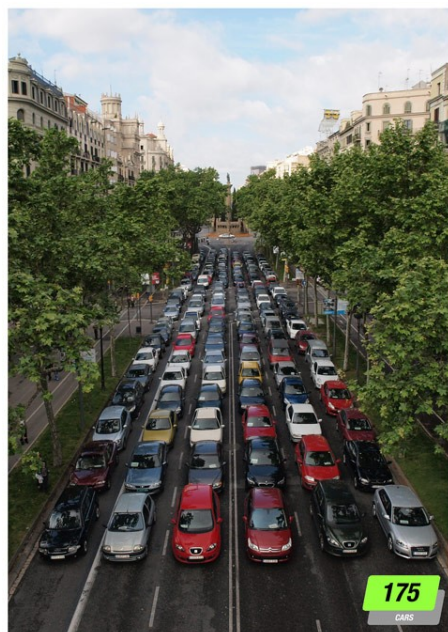
We can't afford the demand of public transport only with metro (the dream of some architects in Barcelona)



5.3 Urban lessons: less concrete and more intelligence

TRAMWAY AND RETBUS. The case of Barcelona.

Diagonal per a tothom (Diagonal for everybody): more than 10 associations joined for a sustainable change in main avenue of Barcelona. Activism, demonstration and a Congress.



5.3 Urban lessons: less concrete and more intelligence

TRAMWAY AND RETBUS. The case of Barcelona.

Diagonal per a tothom won ACCIÓ 21 contest in 2010, in the context of Agenda 21 of Barcelona.





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