

THE FIRST BRT IN CATALONIA: A GLOBAL VISION

Benjamín Cubillo Vidal
Subdirector general
Transports and Mobility



Generalitat de Catalunya
**Departament de Territori
i Sostenibilitat**

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WHY TO BET FOR THE INTER-CITY BUS OF THE GENERALITAT OF CATALONIA?

1 train CIVIA = 4,8M€



1 bus = 240.000€



More efficient
and economic

1 tramway = 2,5M€



Adapt a station
2,5M€ 30M€

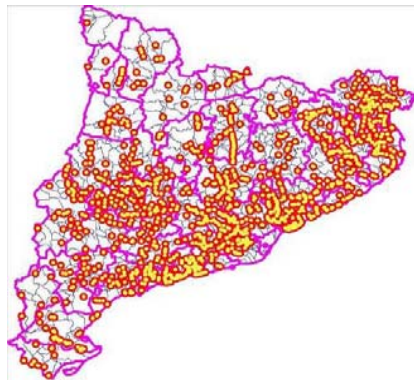


Bus Shelter = 16.000€

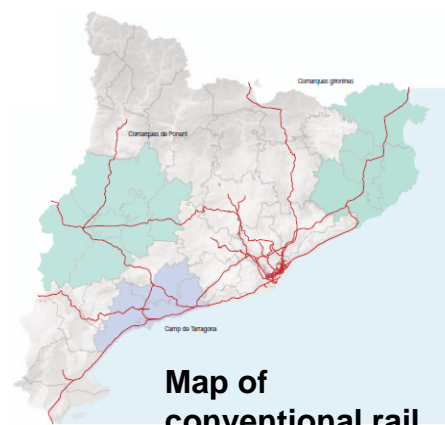


STARTING POINT: CURRENT SITUATION

- Nowadays interurban bus network integrated is more than 700 lines with 53,3 million trips(2011)
- Demand has increased by 57 % from 2001 to 2011
- Most of the network has integrated fare (98 %)
- The network has a wide territorial coverage



Map of bus shelters DGTM



Map of conventional rail network

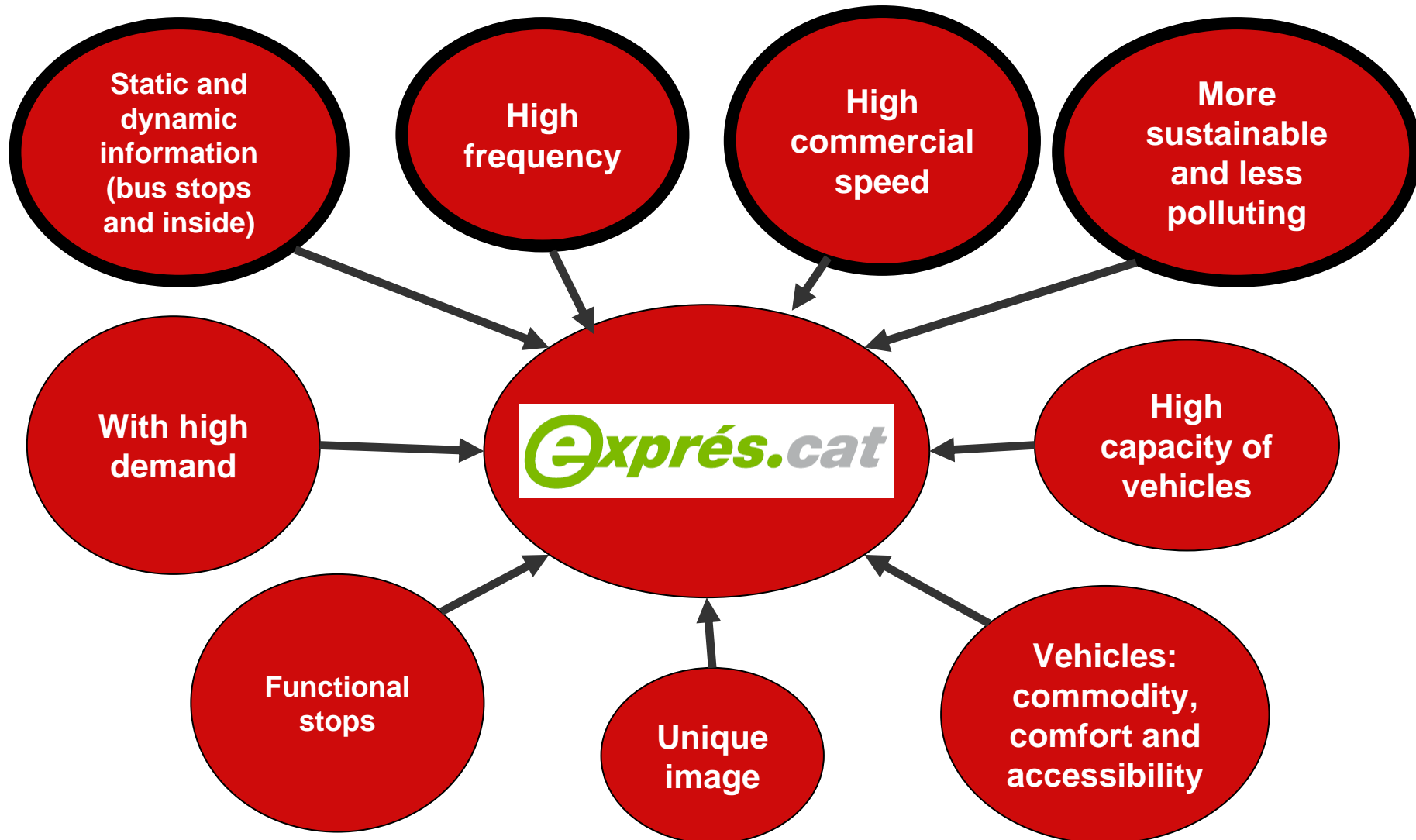
WHICH ARE THE CHALLENGES?

- Get the bus to be competitive as an efficient mode of transport to connect quickly, sustainable and economically the main cities of Catalonia.
- Get citizens considerer the bus as a flexible and friendly system for your mobility: more information and accessibility.
- Passenger's Transport Plan of Catalonia 2008-2012 proposal next direct bus between the cities with higher demand how one of the measures to improve the share of public transport (28 % to 31 %)

WHAT CAN WE IMPROVE?

- Services in high demand in each department: Barcelona, Girona, Tarragona Lleida
- 40 lines of intercity bus with 40 % of total demand (21,3 M)
- High occupancy: 30 passengers/ expedition
- In crisis, is a action at reduced price and with high social outcomes.
- High territorial coverage, extensive to medium cities in all territory

HOW CAN WE IMPROVE INTERCITY BUS NETWORK?



BRT regional Catalonia bus

- In this situation we propose applied the BRT system to improve the regional bus with:
 - High frequency in peak hours and new direct bus service
 - High and competitive commercial speed
 - Real time information to the user
 - All the lines are part of the integrated fare system
 - Intermodal with other modes of transport

BRT regional Catalonia bus

- 100% accessible vehicles for disabled people
- Sustainable and comfort vehicles
- New image and communication: new commercial product: expres.cat
- Complementary with other modes of transport: train
- Priority in public investment
- Public-Private partnerships

ACTIONS PLANNED IN 2012

1. **Study to identify the 'Express Bus Network' corridors**

- Analysis of demand
- Analysis of corridors (stops, congestion points, ...)
- Environmental evaluation
- Creating a new image
- Funding Network
- Incorporation of results of the study in PTVC 2013-2018

2. **First lines of the Express Bus with the lane Bus-VAO C-58**

- More frequency
- More information and best equipments
- More speed

1. STUDY TO IDENTIFY THE 'EXPRESS BUS NETWORK' CORRIDORS OF THE GENERALITY OF CATALONIA

1. DEMAND ANALYSIS

53.3 million trips on Generality of Catalonia's inter-city bus were realized in **2011**.

We have identified the corridors with more demand, candidates to join the new network of buses express of Catalonia.

General characteristics of selected corridors

- **High demand**

16,6 Millions of annual passengers, a 37% of total demand.

- Barcelona: 30% the total demand of the demarcation
- Girona: 27% del the total demand of the demarcation
- Tarragona: 64% the total demand of the demarcation
- Lleida: 58% the total demand of the demarcation

- **High occupancy**

The selected corridors of Barcelona demarcation have an average occupancy of over 30 pas/exp. The demarcations of Girona, Tarragona and Lleida have an average occupancy of over than 20 passengers/expedition.

1. STUDY TO IDENTIFY THE CORRIDORS OF EXPRESS BUS NETWORK

2. ANALYSIS OF CORRIDORS

Each of selected runners are analyzed:

- **More frequency:** Increasing the supply at peak hours
- **Measures to improve the commercial speed:** bus lanes, traffic lights priority, etc..
- **More information:** bus stops with dynamic information panels, with platforms to facilitate the bus access, with all schedules, etc.



1. STUDY TO IDENTIFY THE CORRIDORS OF EXPRESS BUS NETWORK

3. ENVIRONMENTAL AVALUATION

The alternative fuels use will be promoted and the emissions savings calculation will be realized (for ex. Ripollet – BCN works with biodiesel)

4. ANALYSIS OF IMAGE AND NOMENCLATURE

The new network proposes to have a new brand: **name and a image differentiated, preserving the image of public transport of Catalonia.** It's in study a new more understandable nomenclature.

We are working on the image and the name of this new network for the following items: buses, bus stops and information to the user.



1. STUDY TO IDENTIFY THE CORRIDORS OF EXPRESS BUS NETWORK

5. FUNDING NETWORK :

PPP: Public-private partnership

- Financing of **new vehicles**: (240.000 €/veh)
 - 2/3 Operator of public transport
 - 1/3 Generalitat of Catalonia
- Financing and producing the implementation of the **new image and information to the user**: 100% operators of public transport.
- Financing of **services**: Generalitat-Operator

CHARACTERISTICS EXPRES.CAT

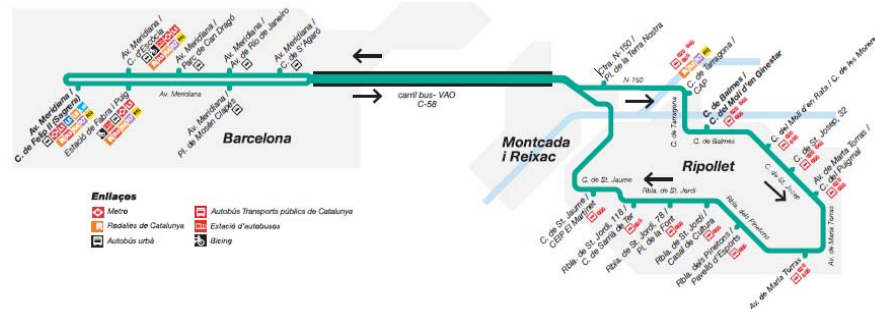
SPECIFIC IMAGE vehicles, stops, information instrument

Barcelona - Ripollet		Dilluns a divendres (horari)										Dh. i di. festius		Dh. i di. festius (horari especial)			
Barcelona	Au. Meridiana / C. de Palpó 8 (Diagonal)	06:30	07:30	08:30	09:30	10:30	11:30	12:30	13:30	14:30	15:30	16:30	17:30	18:30	19:30	20:30	21:30
Ripollet	C. de Sarriena / C. de Sant Joan de Guardiola	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00

Ripollet - Barcelona		Dilluns a divendres (horari)										Dh. i di. festius		Dh. i di. festius (horari especial)			
Ripollet	C. de Sarriena / C. de Sant Joan de Guardiola	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
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INFORMATION TO THE USER: dynamic information at stops, routers, maps
39 new stops real time information,



CHARACTERISTICS OF THE BRTs

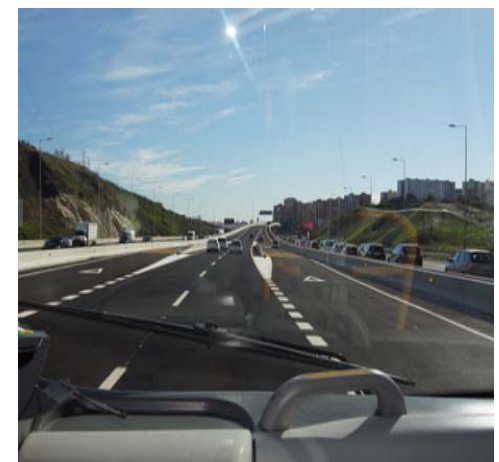
GOOD FREQUENCY IN PEAK HOURS

Adjust offer to demand (ex: Brisbane, Istanbul)



HIGH COMERCIAL VELOCITY

Bus/HOV C-58



CHARACTERISTICS OF THE exprés.cat

FUNCTIONALS AND WELL EQUIPPED STOPS

accessible, platforms



VEHICLES OF LAST GENERATION High capacity,
accessible, comfortable, less polluting



2. FIRST LINES OF THE EXPRESS BUS IN THE NEW BUS-HOV C-58

The entry in service of the lane **Bus - HOV C-58** from **October of 2012**.

The lanes of DGTM that will use this corridor are, principally, the lanes **Barcelona – Ripollet**, **Barcelona – Sabadell**, **Barcelona – Terrassa** and **Barcelona – Cerdanyola – UAB**.

Other runners that can benefit are **Barcelona – Manresa**, **Barcelona – Berga**, **Barcelona – Badia**, **Barcelona – Solsona**, **Barcelona – La Seu**, **Barcelona – Puigcerdà**.



FIRST LINES OF THE EXPRESS BUS IN THE NEW BUS-HOV C-58

e1:Barcelona-Sabadell (new direct line): 15 minutes of frequency in peak hours (8 hours/day). Duration of trip: 30 minutes. Bus stops with real time information: 7. Vehicles 100% accessible for disabled people. Wifi inside the vehicle. Intermodality with urban buses, metro and trains.

e2:Barcelona-Terrassa (new direct line): 20 minutes of frequency in peak hours (8 hours/day). Duration of trip: 40 minutes. Bus stops with real time information: 9. Vehicles 100% accessible for disabled people. Wifi inside the vehicle. Intermodality with urban buses, metro and trains.

FIRST LINES OF THE EXPRESS BUS IN THE NEW BUS-HOV C-58

e3:Barcelona-Cerdanyola-University UAB: 20 minutes of frequency in peak hours (9 hours/day). Duration of trip: 45 minutes. Bus stops with real time information: 9. Vehicles 100% accessible for disabled people. Wifi inside the vehicle. Intermodality with urban buses, metro and trains. Access to the University.

e4:Barcelona-Ripollet: 10 minutes of frequency in peak hours and new service in august and weekends. Duration of trip: 30 minutes. Bus stops with real time information: 14. Vehicles 100% accessible for disabled people. Wifi inside the vehicle. Intermodality with urban buses, metro and trains. Use of biodiesel.

