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# EXPRESS COACH LINES : INTERNATIONAL COMPARISON

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## Coach, bus and express coach

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The **coach** differs from the **bus** in that it is used 'for the carriage of passengers over long distances and allows the vehicle's **occupants to be mainly seated**' (Art R311-1 of the french Code des transports).

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The distinction between **coaches** and **express coaches** no longer concerns the equipment, but **the type of service** offered. The aim is to apply additional quality features: seat comfort, running speed and above all frequency.





## Express coaches: **territorial functions**

Express coaches can serve two territorial functions:

- **suburban lines** link a metropolis to its hinterland
- **interurban lines** relate two or more conurbations along larger routes



# Research objectives and methodology

- Objectives

- Identify the **performance** characteristics of express bus routes in terms of **ridership**, **commercial revenue**, **operating costs**, and with what levels of **financial profitability** and socio-economic profitability.
- Drawing out the **success factors** and development potential of express coaches

- Methodology

- Selection and analysis of a dozen express coach lines with a characterization of the territorial conditions (route, ridership) and recorded the various performance indicators.
- Summary table of the lines' performance, enabling us to compare them and identify common points.

# REVIEW OF SOME EXPRESS COACH ROUTES

Line	Type	length	Speed ( <i>peak time</i> )	Average unit fare
Ligne 50 Aix-Marseille by highway (France)	Public	32 km	38 km/h	7€
Line 407 Créon – Bordeaux (France)	Private	28 km	31 km/h	2,40€
Line Santa Rosa – San Francisco (USA)	Public	99 km	37 km/h	12,90€
Line Sao Paulo – Rio de Janeiro (Brazil)	Private	450 km	69 km/h	20€
Line Hyderabad – Vijayawada (India)	Private	277 km	55 km/h	9,20€
Line 528 Navalcarnero – Madrid Principe Pio (Spain)	Public	34 km	41 km/h	3,40€
Line Kuala Lumpur – Malacca (Malaysia)	Private	133 km	66,5 km/h	2,50€

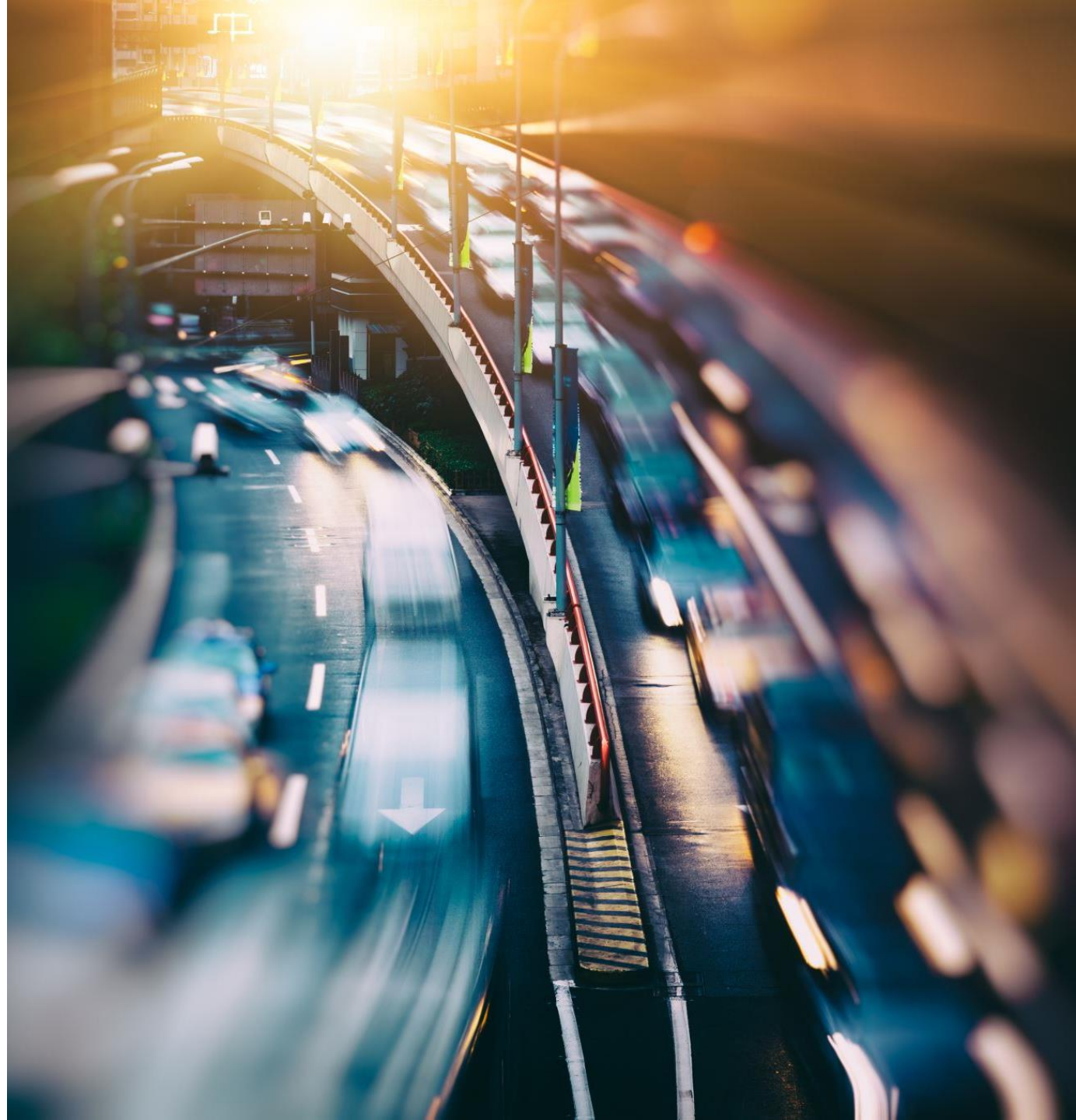


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## Lines organisation

- Suburban coaches : generally provided by public authorities: cities, metropolis, district, region and operated by private companies (highly subsidized)
- Interurban routes : mainly operated either by private operators directly. Like in the USA, or in Japan, Europe, intercity coach services are generally provided on the open market (Van de Velde, 2014).
  - Obligation of declaration
  - Or time-limited concessions for operators (Spain)

Competition reduces prices (Mizuta, 2020)



# Different **production costs**

- Production costs of coach lines : vary greatly from country to country.
  - Depend on the structure of the cost of labour and the cost of capital.
- In France, between €3 in 2020 (Coldefy, Gendre, 2020 ) and €3.60 in 2022 (Orfeuill, 2022) for suburban lines.
- In Taiwan, NT\$34.71 /km in 2006 (equivalent today to €1.27) for national and regional coach lines, taking into account inflation on the island over this period (Chen and Soo, 2009 ).
- In San Francisco : approaches \$32/km
- **Much lower than trains.** For example in the Bordeaux region (France) :
  - operating cost of additional **trains** for the metropolitan RER is estimated at **€13.30** per kilometre,
  - less than **€3** per kilometre for **express coach lines** in the same department.



National interurban coach lines in USA



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## PRICING




- The price charged to the user fluctuates from €5.4 per 100 km in Russia to €25.4 in South Africa or Brazil (PPP), for an average price of €9.7 per 100 km travelled in 12 countries (Potterton, 2021).
- But it changes with the range level



# Impact of **on-board comfort** features on the quality of the journey as perceived by users

For feeling of **safety on board** and **comfort** → Coach is perceived extremely uncompetitive compared with the other modes studied : conventional train, high speed train and plane (Wang et al., 2017).

The most important modal choice factors of comfort are : (Van Acker et al., 2020)

- 1-  **Legroom** is the second most important mode choice factor after cost (especially for the over 30 years) ;
- 2-  **Snacks** on board ;
- 3-  and finally **wifi** (mainly for business travellers). Power socket on board has no impact on the choice of mode.

 The train retains very high levels of comfort (especially ride comfort). In Brazil : the segmentation into **traditional coaches** and **premium coaches** leads to greater intermodal competition between premium coaches and air travel (Araujo Turolla et al., 2009).





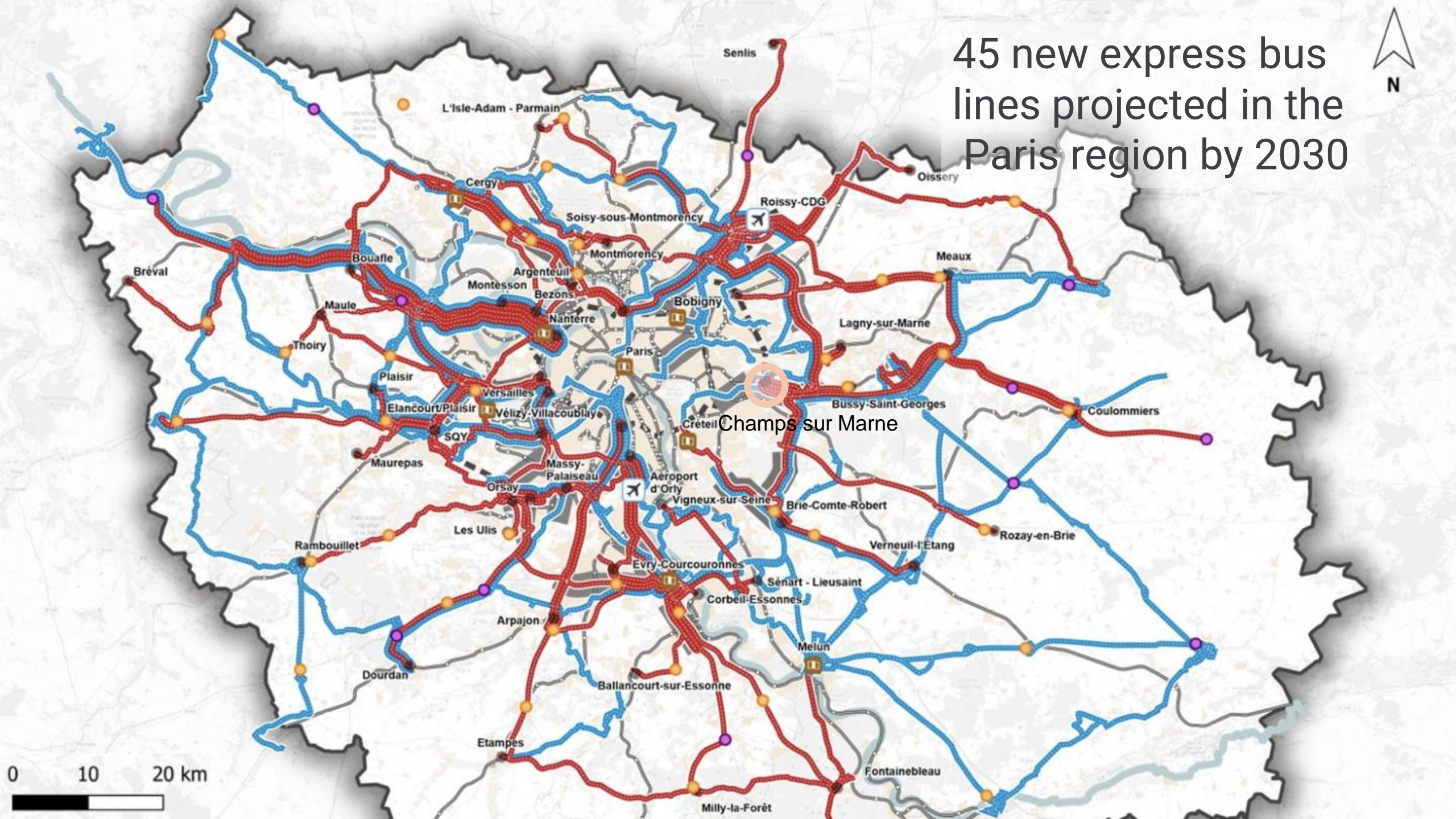
Business travellers are ready to spend an average of **€12.5** per journey to have more space in front of their leg, more than for the increase their commercial speed by 20 km/h, from 60 to 80 km/h (€11.1) (Lannoo and al., 2018).



# Development of express coaches in France

- Registered since 27 december 2023 in the “Code des transports” under the name of ‘high service level road transport’
- SERM : metropolitan regional express services. High service level road transport is one of the links in the SERM chain.
- Main objectives :
  - ‘ more frequent and reliable services to suburban areas,
  - reducing air pollution, and combating car ownership,
  - to open up suburban and rural areas that are insufficiently connected to urban centres,
  - improved accessibility, particularly for people with disabilities,
  - and decarbonizing mobility’.



45 new express bus  
lines projected in the  
Paris region by 2030

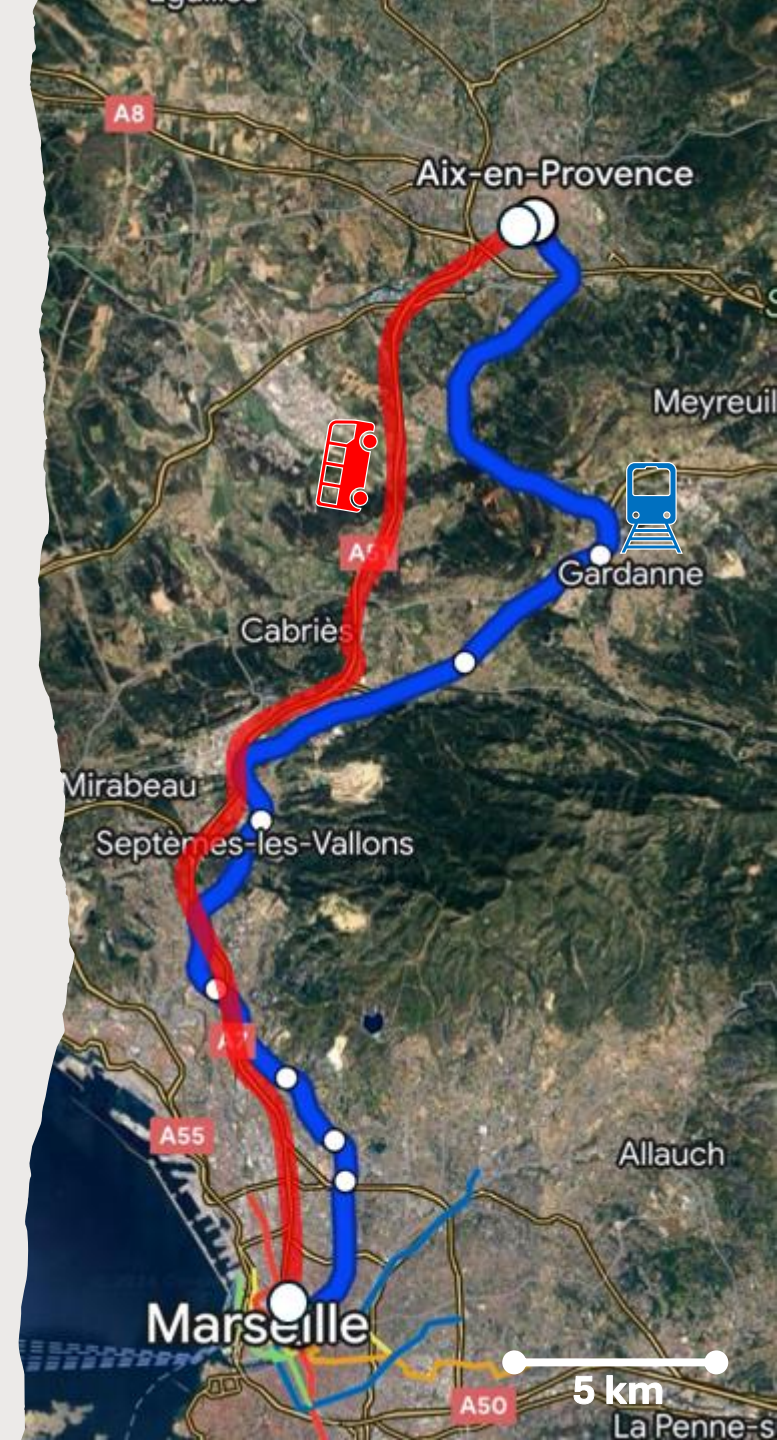








## LINE 50 AIX – MARSEILLE BY HIGHWAY (FRANCE)

- 32 km
- 2-5 stops
- 151 round-trips a day
- 873 000 inhabitants in Marseille / 147 000 in Aix en Provence
- 50 minute-journey in peak time / 35 min in off-peak time
- A commercial speed between 38 and 55 kph
- Unit fare : 7€
- 2 930 354 voyageurs in 2022, between 13 à 15 000 passengers a day on working period
- Operating cost : 3,27€/km
- Cost revenue ratio : 30,1%
- Organized by a local authority : Aix Marseille Provence Metropole
-  





# LINE 407 CREON – BORDEAUX (FRANCE)



- 28 km
- 13 stops
- 30 round-trips a day
- 830 000 inhabitants in Bordeaux Métropole / 18 000 inhabitants in the Creonnais community
- 55 minute-journey in peak time / 40 minutes in off-peak time
- A commercial speed between 31 and 40 kph
- Unit fare : 2,40€
- 214 432 voyageurs in 2022, around 1000 passengers a day on working period
- Operating cost : 2,05€/km
- Cost revenue ratio : 10,3%
- Organized by local authorities
-  

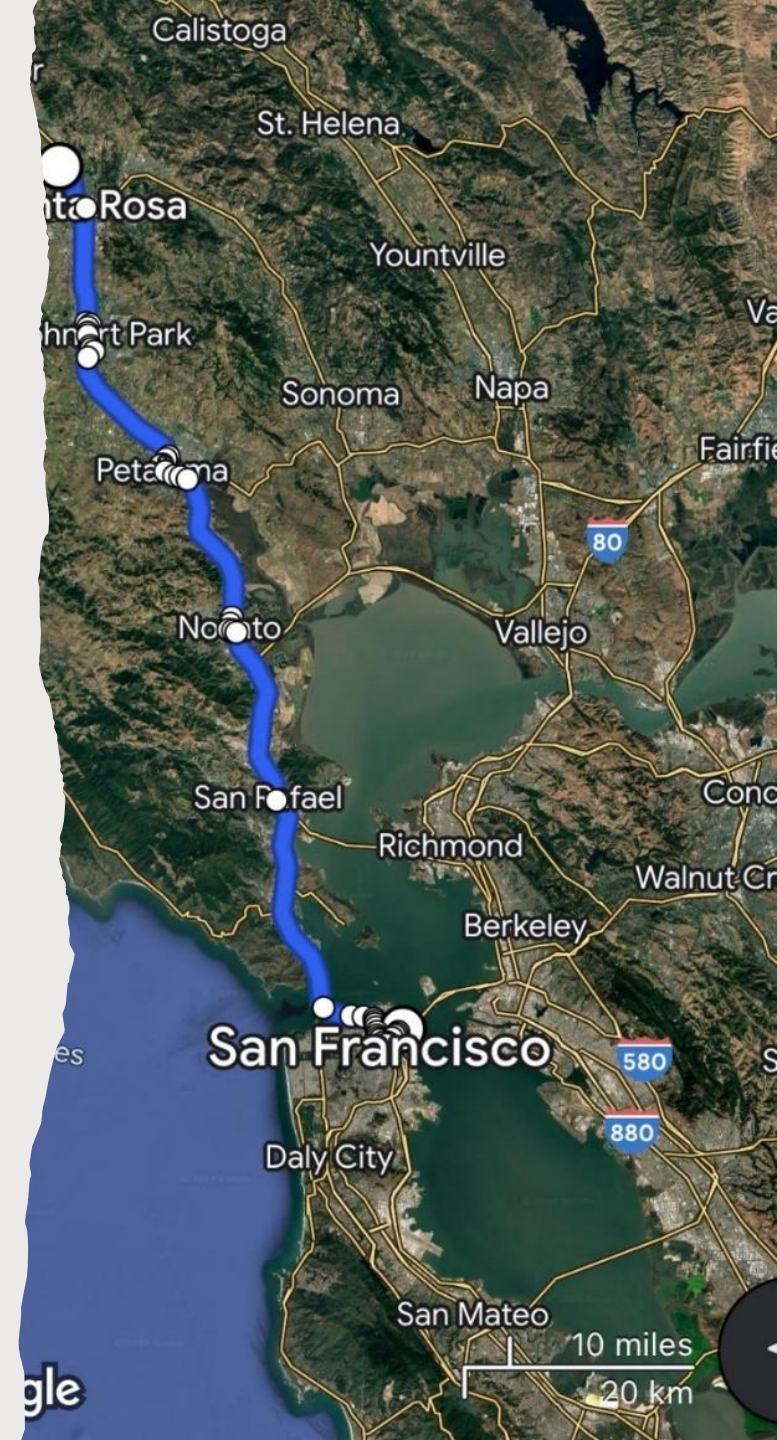




# LINE 101 SANTA ROSA – SAN FRANCISCO (USA)






- 99 km
- 43 stops
- 21 round-trips a day
- 874 000 inhabitants in San Francisco / 489 000 inhabitants in Sonoma County
- 200 minute-journey (2 hours and 40 min)
- A commercial speed of 37 kph
- Unit fare : between \$5 (SF) to \$14 (complete journey)
- 304 461 in 2022, around 1400 passengers a day on working period
- Operating cost : \$32,27/km
- Cost revenue ratio : 4,4%
- Organized by local authorities
-  





# LINE SÃO PAULO – RIO DE JANEIRO (BRAZIL)

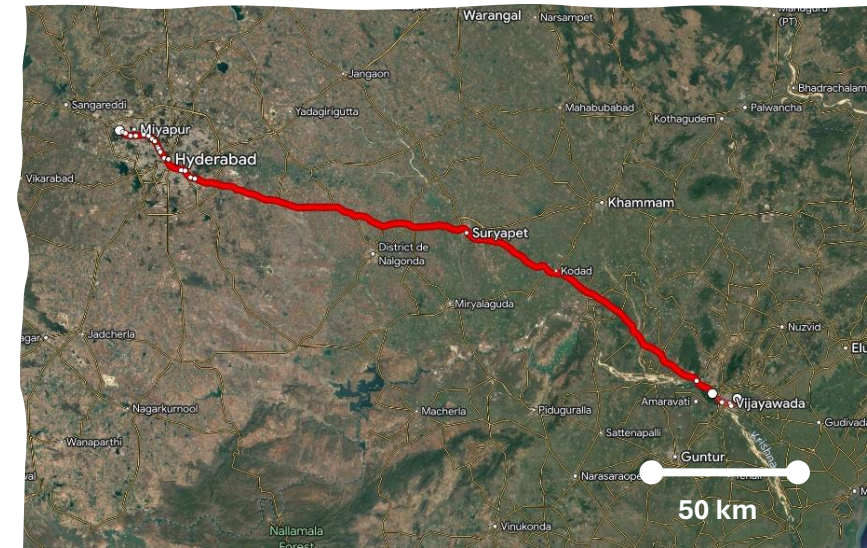
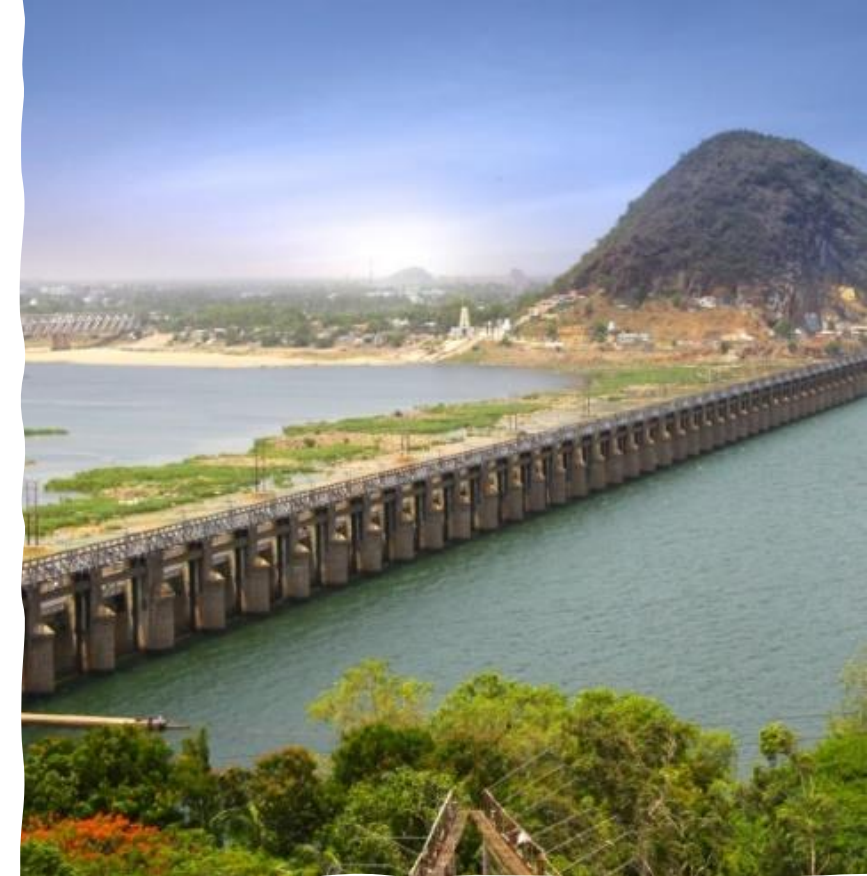
- 450 km
- 2 stops (if direct)
- At least 51 round-trips a day (incomplete data)
- 22 millions inhabitants in São Paulo / 12 millions in Rio de Janeiro
- 6 hour-journey
- A commercial speed between 69 and 75 kph
- Unit fare : between 20€ to 90€ (top of the range)
- Provided by different private operators
- Connexion to bus terminals
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# LINE HYDERABAD – VIJAYAWADA (INDIA)

- 277 km
- 2 stops (if direct)
- 580 departures (equivalent to 290 round-trips)
- 10 millions inhabitants in Hyderabad / 5,8 millions Vijayawada
- 4-5 hour-journey
- A commercial speed between 55 and 69 kph
- Unit fare : around 9,20€
- Provided by a important number of private operators
- Different types of seats proposed: seaters, sleepers (most expansive), seater/sleepers
- Revenue per km : 0,88€
- 📶 (depend on vehicles)





## LINE 528 NAVALCARNERO – MADRID PRINCIPE PIO (SPAIN)

- 34 km
- 17 stops
- 50 round-trips a day
- 3,3 millions inhabitants in Madrid / 32 000 in Navalcarnero
- 50 minute-journey
- A commercial speed around 41 kph
- Unit fare : 3,60€
- Organized by the region of Madrid
- Operating cost : around 3,70€/km
- Cost revenue ratio : 27%

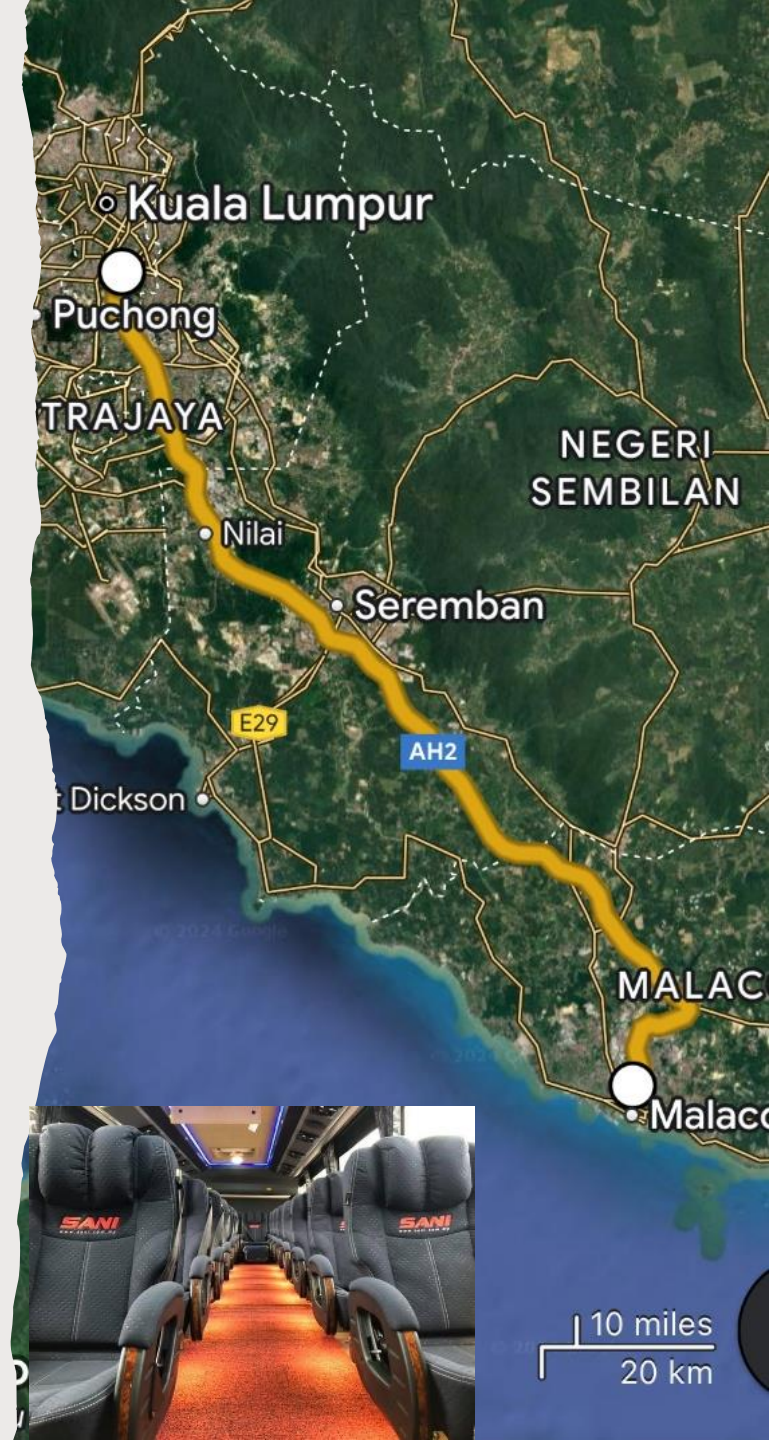




## Couch terminal of Bersepadu Selatan

## LINE KUALA LUMPUR – MALACCA (MALAYSIA)

- 133 km
- 2 stops
- 80 round-trips a day
- 8 millions inhabitants in Kuala Lumpur / 580 000 in Malacca
- 2 hour-journey
- A commercial speed around 67 kph
- Unit fare : around 2.50€
- Provided by more than 7 operators







Conclusion