

Accelerating Daily Carpooling in the French Overseas Territories

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Short-distance carpooling to support mobility systems in the French overseas territories

Key points

- ▶ In the French overseas territories, more than 66% of journeys are made by car,^[1] due to the lack of public transport services and adequate infrastructure, in particular for active modes (such as walking and cycling). The environmental and social consequences and the associated negative externalities (congestion, noise, local pollution, GHG emissions, consumption of public space...) are exacerbated compared to mainland France and increase the negative socio-economic impact of individual road mobility. With 30% of CO₂ emissions attributable to the transport sector, Guadeloupe, for example, is the French territory with the highest emissions per person and per kilometer traveled.^[2] Automotive fuels account for 67% of final energy consumption, contributing de facto to the region's energy dependence.
- ▶ In an often difficult economic climate, transport puts a strain on household budgets.^[3] Accident rates are also higher than in France,^[4] reinforcing the negative socio-economic impact of individual road mobility.
- ▶ Heavy congestion on the main highways is due to the configuration of the network, which is restricted in island geographies (small surface areas with steep relief), as well as sprawling urban development leading to an increase in the number of car journeys.
- ▶ Carpooling is an effective alternative, especially for commuting, and a complementary solution to the development of efficient public transport networks. It already exists, most often informally, and is based on a logic of solidarity. However, its massification, even through local initiatives (including subsidized journeys), comes up against various types of barriers – psychosocial, infrastructure and service, administrative, legal – and an entrenched habit of solo driving.^[5]
- ▶ Sustainable mobility policies thus need to make daily carpooling a full-fledged component and provide for the definition of a comprehensive, planned, and coordinated development strategy involving all the stakeholders.

[1] Extremely high modal share of cars by number of journeys for mainly urban territories: 66% in La Réunion, 73% in Guadeloupe, 74% in Martinique, against 62.8% for mainland France.

[2] 264 grams of CO₂, compared with an average of 130 grams in continental regions.

[3] The cost of using a car is higher in overseas territories than in mainland France, representing up to 30% of household budgets in Guadeloupe.

[4] For example, the number of road deaths as a proportion of the population is 2.8 times higher in Guadeloupe than in mainland France.

[5] As in mainland France, solo driving predominates, especially for commuting from home to work: 9 drivers in 10 are alone when they commute from home to work ("People Mobility" survey 2019, Ministry of Ecological Transition).

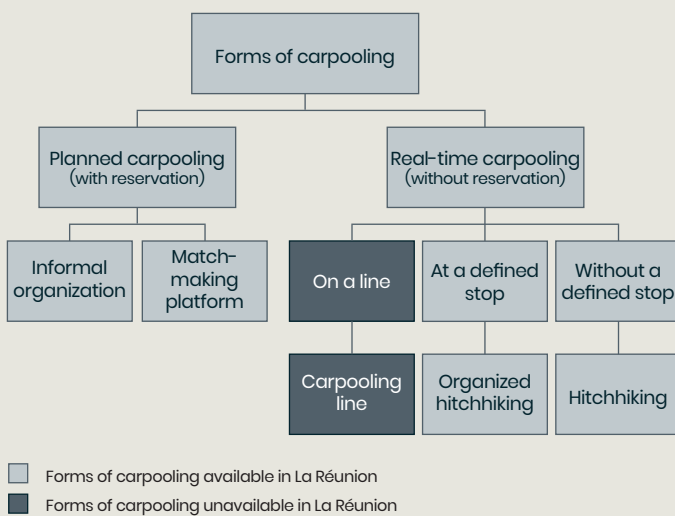
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Make daily carpooling a full-fledged component of sustainable mobility policies in the French overseas territories

Defined by Article L3132-1 of the French Transport Code,^[6] carpooling in practice covers various forms, which can be combined within a mobility area. They are characterized by their mode of organization (with or without reservation), which differs depending on the territorial typologies and has different user targets. "Daily carpooling" is primarily organized during weekdays, at local level and over short distances (<80 km).

Figure 1 - Different forms of modes of carpooling – Case of La Réunion



In the French overseas territories, the scarcity of land hinders the development of Bus Rapid Transit (BRT) systems. In a number of unserved sectors, passenger cars are therefore essential when there are no alternative forms of mobility. In this respect, carpooling provides a credible solution that can be easily and quickly organized.

Indeed, it relies on flows of vehicles already in circulation and an existing informal practice, based on a logic of mutual support and solidarity. Furthermore, it does not require significant investment, apart from a relatively high operating budget during the first years to create a critical mass. Finally, an ecosystem of local operators, offering solutions geared to the needs of residents/users, is already emerging.

Carpooling thus provides a response to various mobility issues: greater energy savings, a reduction in CO₂ emissions,^[7] improved air quality, a reduction in the cost of mobility and a contribution to the right to mobility for all,^[8] a contribution to the development of social cohesion and territorial solidarity, a reduction in congestion and the cost of road maintenance, etc.

However, to avoid any associated rebound effect,^[9] it is necessary for an overall mobility policy to accompany the development of carpooling within the widest possible package of mobility services, ensuring complementarity and intermodality between the various modes of transport.

Figure 2 - The different benefits of carpooling for the various categories of stakeholders

For users	For employers	For the community
<ul style="list-style-type: none"> Reduced travel expenses Increased comfort (driving time shared) New social ties 	<ul style="list-style-type: none"> Improved access Benefits for the image Social cohesion among employees 	<ul style="list-style-type: none"> Reduced congestion and nuisance of cars Benefits for public spaces (especially parking) Environmental and energy benefits

Develop a holistic development strategy integrating all the stakeholders in the territory

The mobility ecosystem is composed of several stakeholders, all with various tools to promote the development of carpooling.

At national level, the National Daily Carpooling Plan^[10] has an ambitious objective. Through 14 measures and an annual budget of €150 million between 2023 and 2027, it aims to triple the number of carpool journeys to 3 million by 2027. To assist local authorities, the Green Fund supports the implementation of action for carpooling, including incentives for carpoolers, and also subsidizes studies, facilities and services.

Since the Mobility Orientation Law ([LOM] 24 December 2019), carpooling has been the responsibility of mobility organizing authorities (intermunicipal associations, regions), which may now pay an allowance to drivers and passengers (subsidized journeys, tax exemption for this support). For example, the Réunion Region subsidizes carpool journeys through a platform (Karos), while several EPCIs^[11] have set up organized hitchhiking systems (Rezo Pouce).

Highway authorities (municipalities, departments, regions) retain responsibility for the development of infrastructure within their remit: service areas, stops and dedicated carpooling lanes.

[6] "The shared use of a motor vehicle by a driver and one or several passengers, without remuneration, except for the sharing of costs, in the context of a journey made by the driver on its own account."
 [7] 4.5 million tons of CO₂ per year can be saved, or the equivalent of 1% of annual greenhouse gas emissions in France if the objective of the national carpooling plan of 3 million daily journeys is achieved.
 [8] A worker living 30km from their workplace who uses daily carpooling can save almost €2,000 a year.

[9] Refers to a phenomenon observed when the savings expected from the use of a new solution are totally or partially negated by an overconsumption caused by lifestyle changes. In the case of carpooling, the rebound effect may take different forms. See Colombel, Nicolas, 2022, « Sans mesure d'accompagnement, les bénéfices environnementaux du covoiturage urbain en Île-de-France resteront limités ». In « Les Mobilités », under the direction of Fabien Leurent, *Le Cahier des Ponts* 6: 8-9.
 [10] See: https://www.ecologie.gouv.fr/sites/default/files/publications/22243_plan-Covoiturage_DP_V2maj.pdf
 [11] Intermunicipal public entities.

Unlike mainland France, where there is more of a move towards concentration, a number of private operators are emerging in the French overseas territories, where they are developing carpooling solutions, with or without the support of public authorities: Rundrive in La Réunion, Garico in Mayotte, Youmoov in French Guiana, Dépozé in Guadeloupe, Noula in the West Indies and La Réunion, Wigo in New Caledonia. National operators, such as Karos, are also present in La Réunion and Guadeloupe.

Finally, to promote shared journeys among employees, public and private employers have resources, such as the sustainable mobility package, introduced by the LOM law, and the development of mobility plans.

Regions, the lead operators in mobility under the LOM, have a key role to play in the development of a carpooling strategy in order to ensure consistency between all these policies and initiatives. This strategy needs to be:

- **Coordinated** with the other levels of intervention: national, regional and local
- **Planned** in advance, in consultation with the stakeholders in mobility in the territory: through a master plan on carpooling to define the needs, establish the intervention framework and strategy, and build a roadmap shared with the stakeholders
- **Monitored and evaluated:** it is important to be able to evaluate the impact of the implementation of public policies on carpooling and monitor its use and effects over time

What recommendations for an effective carpooling strategy?

Change habits taking the various types of potential user profiles into account

Carpooling is developing and attracting more and more users. This is especially because of the economic situation (rising fuel prices, declining purchasing power, etc.) and growing environmental concerns. Yet it comes up against behavioral barriers and various fears (security, guarantees, punctuality).

A survey, conducted in La Réunion with the support of AFD and based on group interviews, has identified them. For example, the public point to the lack of carpooling areas and/or their lack of security (“I’m scared to leave my car”), as well as the lack of involvement of companies (“They don’t encourage employees to tackle solo driving”).^[12]

Furthermore, it has highlighted various typical user profiles, from the most skeptical to the most convinced, and recommends taking different types of action. It recommends adapting the tools for action and focusing efforts on those who are at least aware or willing, without forgetting to maintain motivation among those who have already taken the plunge.

Figure 3 – The various tools for action available depending on user profiles



The skeptical

- ▶ Raise awareness
- ▶ Promote the social norm



The aware

- ▶ Raise awareness
- ▶ Promote acceptability
- ▶ Promote the social norm



The willing

- ▶ Facilitate the habit
- ▶ Demonstrate the impact and feasibility
- ▶ Trigger the habit
- ▶ Promote interpersonal relations



The involved

- ▶ Make the habit attractive
- ▶ Maintain the habit
- ▶ Promote interpersonal relations
- ▶ Demonstrate the impact and feasibility



The committed

- ▶ Promote interpersonal relations
- ▶ Make the habit attractive

Set up incentive mechanisms to initiate the development of carpooling

To promote the emergence of a “carpooling ecosystem”, it is necessary to remove the barriers and initiate changes in behavior, in particular in territories where carpooling is still not very developed. To do so, local authorities have a set of incentive tools for users:

- Financial incentives (passengers and drivers) to get people to take the plunge or make it easier for them to do so;
- Communication activities to inform about and explain the benefits of carpooling and raise awareness among potential users;
- Coordination of the carpooling ecosystem, justifying the creation of a mobility agency.

In addition, as journeys between home and work are the easiest for potential users to “carpool”, the AOM also need to support public and private employers. Various tools have already been tested: organization of pairs of carpoolers, carpooling bonus in companies, reduction in mileage allowances for solo drivers, organization of a guaranteed return if the driver become unavailable at the last minute, etc.

[12] From the conclusions of the General Assembly on Mobility, Réunion Region, September 2023.

Develop the infrastructure and services that are essential for the development of carpooling

* * *

To facilitate matching among carpoolers, it is necessary to prioritize and develop the key infrastructure and services depending on the characteristics of the territory.

For the infrastructure, carpooling areas improve conditions for carpoolers to meet. Reserved parking spaces and, when the land is available, dedicated lanes save time and increase the benefits of carpooling. Carpooling lines consist of pick-up and drop-off points on the main highways on the road network and offer a service similar to public transport, but based on the use of a private vehicle.

For the services, digital platforms facilitate contacts between users, by offering advance or real-time reservations.

Provide alternative services when no drivers are available

According to the survey conducted in La Réunion (see above), the fear of not being able to do the return journey is one of the main barriers to the development of carpooling. To provide a “guaranteed return”, the AOM could, in conjunction with the carpool operators, offer an emergency taxi, chauffeur, or on-demand transport service. Similarly, public transport can be a “natural” alternative to carpooling in the event of a problem with the return journey, provided that the service has an adequate frequency and timetable.

Figure 4 - The various categories of available tools/ action

Infrastructure	Financing	Offer
<ul style="list-style-type: none"> Reserved lanes Pick-up/drop-off points Reserved parking (parking lots, P+R, areas) 	<ul style="list-style-type: none"> Equitable financing between modes Incentive-based pricing and targeted subsidies 	<ul style="list-style-type: none"> Carpooling lines Matchmaking platforms Spontaneous hitchhiking
Governance	Communication	
<ul style="list-style-type: none"> A lead manager and partners A public policy on carpooling An observation, monitoring and evaluation mechanism 	<ul style="list-style-type: none"> Multimodal information Promotion/ awareness-raising Change management Community animation 	

In conclusion, when it is integrated into a public policy on mobility, carpooling, whether or not it is planned, can help tackle solo driving and provide a complementary solution to existing public transport, pending the implementation of the projects for BRT systems under consideration or construction in several French overseas territories.^[13] However, the development of carpooling requires a profound change in behavior. It is also necessary to prove its effectiveness by organizing demonstration actions, geared to the cognitive profile of the various car users, to remove the psychosocial barriers that prevent the use of shared mobility solutions.

[13] Yanéo Bus Rapid Transit (BRT) in Cayenne; extension of the BRT system in Martinique; Guided Regional Transport Network, Baobab project, and cable car transport in La Réunion, Cap Excellence BRT in Guadeloupe, etc.

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