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Second Edition of the VEDECOM & MACIF Autonomous Vehicle Barometer

Three out of four French people are in favor of the autonomous vehicle, which could play a decisive role in rural areas



Crest & Val de Drôme experiment led by beti © Alpcat Medias for beti

The second edition of the VEDECOM & MACIF barometer on the acceptability of the autonomous vehicle by the French reveals that 73% of them have a positive attitude towards this means of transportation: an increase of 3 percentage points compared to 2020 (equivalent to about 2 million of the French population).

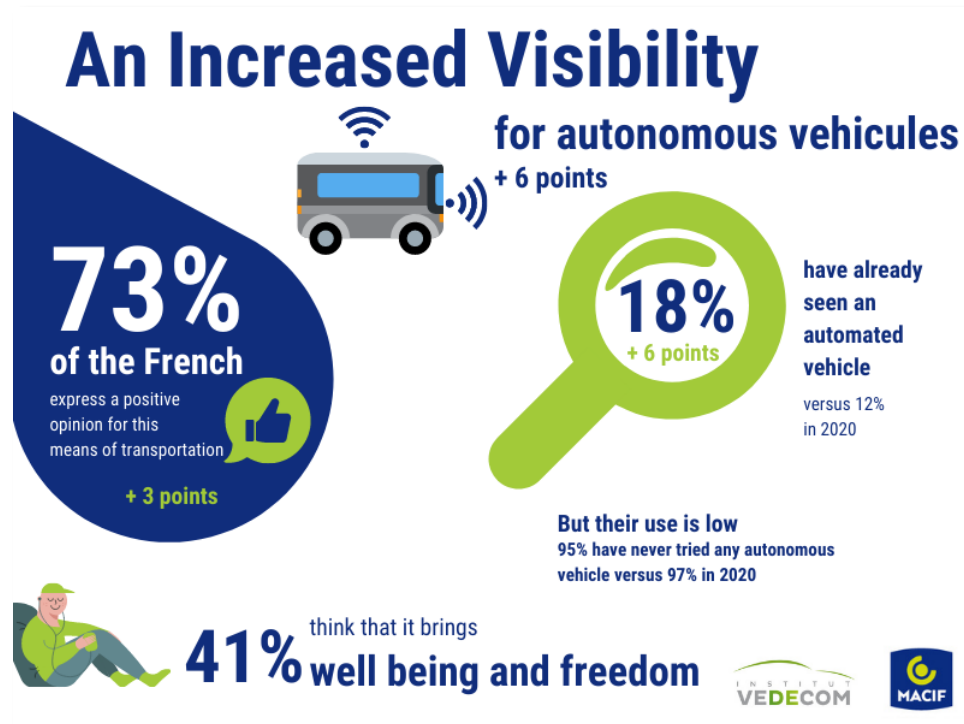
In 2020, the French had a positive perception of the automated vehicle, given that it's introduced in a context of environmental preservation and improvement of inclusive mobility. With the growth of autonomous mobility experiments on the French territory, has the perception of the French changed in 2021? Do they see themselves using it regularly, everywhere and for everyone? What do they expect from it?

“Mobility for all, autonomy for all: this is the ambition of our community of interest on shared autonomous vehicles for the past 3 years. The autonomous vehicle must first meet a societal need before being a technology used by individual drivers. It's in this way that the shared autonomous shuttle will help to revitalize isolated areas by providing access to employment, health care or by making mobility accessible to all.” Yann Arnaud, Director of Responses to Member's Needs and Innovation at Macif and Leader of the Autonomous Vehicle Community of Interest.

More than 50% of French people are ready to try it

18% of respondents have already seen an automated vehicle, 6% more than in 2020. **More and more people want to test it, and 5% have had the opportunity to use one this year** (2 points more than in 2020).

More than **half of the French people (53.50%)** say they **intend to try autonomous mobility in the coming years** (+11 pts). More than 6 out of 10 say so when they have already seen an automated vehicle (+15 pts) and more than 7 out of 10 when they have already used one (+10 pts). In general, nearly **4 out of 10 French people (39%) plan to regularly use an autonomous vehicle** (+6 pts).



The autonomous shuttle: a way to revitalize remote areas

The autonomous vehicle is highly anticipated in rural areas to provide for day-to-day services (e.g., on-demand services for isolated seniors or last-mile deliveries to industrial zones). It will finally make mobility accessible to all. A new way to get around? Yes for **67% of French people who believe that the shared autonomous vehicle will allow people living in rural areas to no longer be dependent on the private car**. Nearly 3/4 of them think that shared autonomous shuttles would be useful in rural areas to go to appointments or to do shopping and 2/3 to go to the nearest town, the nearest train station or to work.

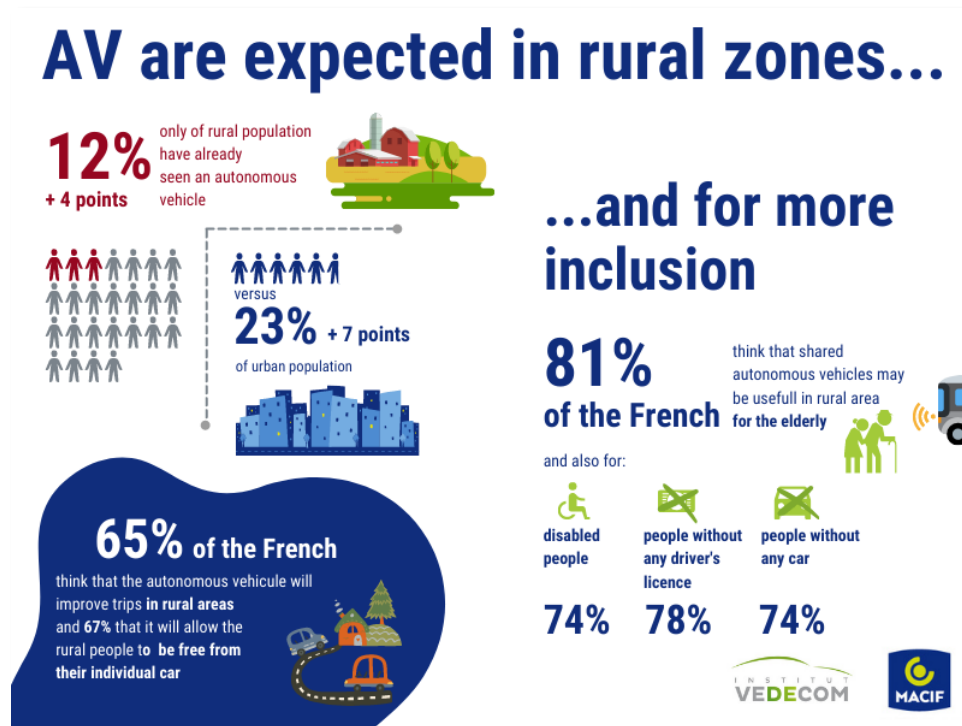
Automated mobility would respond to a **concern that the French have for the most vulnerable populations**. It would be useful in rural areas for the elderly (for 81% of respondents), then for those who do not have a driver's license (78%), who do not have a car (74%), or for people with reduced mobility (64%). One French out of two would also be in favor of transporting children and teenagers in rural areas by autonomous shuttles.

Reaching out to those who will need it most

Although still low, the visibility of the autonomous vehicle is increasing throughout the country, including among rural residents. 12% of rural residents have already seen an automated vehicle, a figure that is up 4 points from 2020, but only 2% have used one (+ 1 point) compared to 7% of urban residents (+ 2 points).

The visibility of the automated vehicle is higher and growing more quickly among young people, city dwellers and executives: 24% of the 18-24 years old have seen an automated vehicle (+6 points), 23% of city dwellers (+7 points) and 22% of executives (+4 points). More than 8% of the latter have already tried an automated vehicle (+3 points). There is therefore an educational balance to be found between urban and rural populations, but also between young and old.

As for the unemployed, only 3.5% have tried an automated vehicle. This is a progression, though, since none had tried one last year.



The autonomous vehicle, associated with green energies

Autonomous vehicle is perceived as **more ecological than non-autonomous vehicles** by nearly 63% of respondents (+ 3 pts); 77% (+ 7 pts) of them even think that compliance with ecological standards will be mandatory. **62% of the French perceive the ecological side** of the shared autonomous shuttle more than for individual automated vehicles, for which they have a reservation.

6 out of 10 French people say they are safer in an autonomous vehicle

Trust and safety is the second element that encourages the French to use an autonomous vehicle. Moreover, the same as last year, nearly **6 out of 10 French people (57.80%) say they feel safe in an automated vehicle** and more than **5 out of 10 (54%; +2 pts)** think that **this vehicle is reliable**.

The respondents consider using an autonomous vehicle as soon as they have seen or tested it at least once. To try it is to adopt it!

More confidence among the youngest respondents for level 3 - More than half of the French say they trust automated vehicles (+3 points). There is a 14 points increase in the 18-24 age group, with 41% trusting at least limited automated driving (i.e., level 3).

Autonomous mobility, symbol of freedom

When asked this year about the main elements that would encourage them to use an autonomous vehicle in general, the French mention the first, the possibilities of **well-being and freedom** that it brings (41% of responses). Autonomy is associated with **comfort and serenity**, via the on-board activities it makes possible (talking on the phone, sleeping...). Autonomous mobility everywhere and for everyone is also very appealing to the French, who are already planning to use it in concrete ways (e.g., improving mobility for the elderly and connections between cities).

However, when the French have the choice between different types of automated vehicles, they prefer the one that allows them to be able to regain control (level 3) in order, for 55% of them, to keep the mastery and maintain complete command of the car.

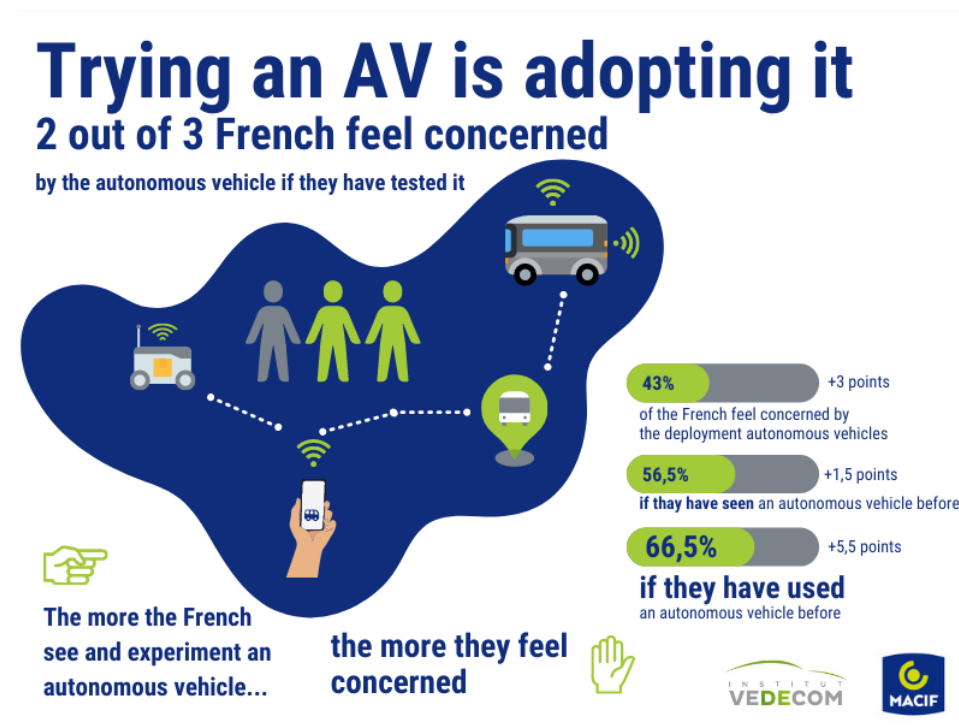
Trying it would be adopting it

The results of this second edition clearly show that the introduction of automated vehicles, as well as the more advanced experiments, have an impact: **they maintain the positive perception of the French and their a priori confidence, as well as reinforce their feeling of safety.** Awareness and perception indicators confirm that the French need to know more about this new kind of mobility.

For Eric Lebeau, Managing Director of the VEDECOM Institute, *"this second survey clearly shows the direct and positive link between experimentation and acceptability of the autonomous vehicle: it is now time to move on to deployment and to observation during real-life operational service pilots. The popularity rating of autonomous vehicle is slowly but surely improving, with a strong expectation for shared and electric services such as shuttles, which are perceived as more environmentally friendly and inclusive than the individual vehicle."*

The major expectation is in **rural areas where autonomous mobility makes sense.** Autonomous shuttles will be relevant in these areas to improve the existing network and therefore the mobility of residents who do not have access to a personal vehicle, to provide new services, and to encourage car owners to use shared formulas.

"We still need to structure a sector that can respond to the needs of the local authorities, both in terms of opportunity studies, vehicles supply, services and appropriate infrastructure," concludes Eric Lebeau.



Methodology of the VEDECOM & MACIF Acceptability Barometer

The Automated Vehicle (AV) Acceptability Barometer was conducted with a representative panel of the French population (gender, age, geographic distribution) consisting of 4,061 people. The questionnaire was administered from October 18 to 28, 2021. The questions asked made it possible to collect data on :

- the relationship with the autonomous vehicle and in particular the main brakes and levers for using an automated vehicle
- the preferred type of autonomous vehicle to be chosen among 4: Personal Vehicle (PV) level 3 (limited autonomous driving), PV level 4 (almost complete autonomy), Robot cab level 5 (complete autonomy), Bus / autonomous shuttle level 5
- evaluation of the acceptability of the 4 vehicles including in particular the perception of the AV in terms of safety, trust, protection of personal data and attitudes (i.e. judgments on the desirability of an object or a behavior and/or its consequences, a positive attitude towards the AV amounts to judging it desirable whereas a negative attitude amounts to judging it undesirable) and the reasons for these choices
- themes related to current issues: ecology, mobility in rural areas, energy, deliveries
- the socio-demographic characteristics of respondents and their degree of technophilia (i.e., a technophile is a person who appreciates and/or encourages new technologies).

The barometer was built on the basis of the previous edition, new scientific studies and a series of interviews conducted with French people.

MACIF is the leading car and motorcycle insurer in France in terms of the number of contracts, present in 20% of households.

Mobility is closely linked to the issues of employment, solidarity, support for the most vulnerable and the opening up of territories. Thanks to its positioning as an insurer of all forms of mobility and its mutualist values, MACIF is actively participating in the emergence of the autonomous vehicle.

MACIF is piloting the work of a community of interest, hosted by the Movin'On Lab, which brings together 13 major companies that want to work to ensure that the autonomous vehicle contributes to the emergence of more inclusive and sustainable mobility: beti, BNP Paribas Cardif, Faurecia, Groupama, Kantar, Macif, Maif, Michelin, Microsoft, Navya, Orange, SNCF and Vinci. MACIF shares with VEDECOM the fact that an ecosystem approach will be able to respond to the societal challenges related to road safety and mobility of the future.

"Mobility for all, autonomy for all": the ambition which drives the work of the community of interest on the shared autonomous vehicle.

The community of interest is focusing on a model of shared autonomous vehicle: the shared-use shuttle, which will open up territories and facilitate people's mobility, thus helping to improve access to employment, health, education.

The main objectives are to:

- Move away from a purely technological prism to understand this object in all its complexity;
- Evaluate the contribution of this solution to mobility in rural and peri-urban areas in order to offer concrete and useful answers to the needs of individuals, local authorities and companies,
- Influence so that the autonomous vehicle contributes to the emergence of a more sustainable and inclusive mobility;
- Promote acceptance and confidence in autonomous vehicles by the public in their daily environment.

This year, the Community joins the first experimentation in the Val de Drôme.

About Macif

As a mutual insurer, Macif is committed to its 5.6 million members and customers on a day to day basis to protect the present and enable the future. Macif offers simple and useful protection services in property and casualty insurance, health and provident insurance and finance and savings. Managing more than 18.4 million contracts, the Macif Group, of which the mutual insurance company was a part until December 31, 2020, achieved a turnover of more than 6.6 billion euros in 2020. Since January 2021, Macif has been affiliated with Aéma Groupe. Aéma Groupe, born of the merger between Aésio Mutuelle and Macif, imagines every day the contours of a fairer and more human world by placing thoughtfulness at the heart of the relationship with its members, policyholders and corporate clients. For more information, visit www.macif.fr.

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About VEDECOM

The VEDECOM Institute for Energy Transition (ITE) has been commissioned by the French government to support technological innovation and the French industrial sectors involved in the mobility of the future. Based on an unprecedented collaboration of some fifty players, it brings together academic institutions, local authorities and various private players: automotive, public transport and mobility, logistics, road infrastructure, telecommunications, energy, aeronautics and defense, digital services and simulation, and insurance. Created in 2014 as part of the Investments for the Future Plan (PIA), the Institute is one of 15 research institutes gathered within FIT, French Institutes of Technology. It has 100 employees and a budget of €17M in 2021. VEDECOM has produced more than 500 publications and 80 theses, and trained more than 2,500 people in its training program. The barometer is the result of the ANIMA project, co-financed by the French National Research Agency (ANR) under the PIA, MACIF, MOVIN'ON, RENAULT, PSA, VALEO and CONTINENTAL. More information on www.vedecom.fr

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