

January 2023

National strategy for the deployment of automated and connected road mobility



Updated in 2022

The national strategy aims to support the deployment of automated and connected road mobility by ensuring its safety. It sets out this objective in specific actions in the regulatory field or in terms of coordination or support, particularly financial support, for stakeholders.

The national strategy is based on an ecosystem of public and private stakeholders, ensuring the coherence of objectives, actions and agendas, taking into account the evolution of mobility needs and industrial and commercial perspectives.

This strategy update covers actions for 2022-2025.

2018-2022: preparation for deployment

As of May 2018, France holds a national strategy for the development of automated road mobility. Updated in 2020, this strategy is based on:

- two *objectives*: to develop the sovereign production of these technologies and contribute to the modernization of mobility services

- three principles of action: safety, progressivity and acceptability, which remain valid today

- the coordination of a large *public-private ecosystem* (nearly 200 research organizations, industries, transport and digital services operators, road operators, associations of elected officials and users, etc.), allowing for the co-construction of the regulatory framework and accompanying actions

- reasonable development perspectives based on *use cases* that are technically and economically feasible in relevant *operational design domains*, with priority given to public or shared transport that complements mass transit

- strong contributions to *international and European framework* - culminating in the actions conducted under the French presidency of the European Union in the first half of 2022 regarding the approval of fully automated vehicles and the regulation of data exchange.

This framework has led to several advances, including:

- a comprehensive legislative and regulatory *framework* for the deployment of automation: France has the most *advanced legal framework* in Europe and the G7, allowing the deployment of automated vehicles and road mobility services, including *driverless systems* on predefined routes

- a coherent strategy to support innovation.

Support mechanisms adapted to different innovation segments

Accelerating the market launch of innovative and sustainable technologies, services and/or ambitious solutions in automotive mobility: €250 million in 2022

Artificial intelligence applications and safety validation of autonomous transport systems: €50 million

Experiments: €42 million (16 experiments - individual vehicles, public transport, logistics)

Automated road mobility, connected and low-carbon service infrastructures: €200 million.

Improving the competitiveness of the logistics chain and controlling its environmental impact: €90 million

Four priority actions:

- > Prioritize and coordinate connectivity systems and data exchange deployments.
- Finance investment projects in industrial supply of automated road mobility, ambitious service pilots, or first commercial deployments, in particular via France 2030 and by mobilizing European credits
- > Support volunteer local authorities and operators in the deployment of passenger services.
- ➢ Finalize the legal framework for automated freight and logistics.

A target: 100 to 500 automated passenger transport services, without an on-board operator, by 2030

The framework and momentum that have been created make it possible to work with local authorities, users and companies in the sector towards operational objectives:

- **The industrialization of supply**, supporting vehicles, equipment and system producers in order to better develop in France the benefit linked to the development of automation and connectivity of vehicles and infrastructures.
- The development of use cases:
 - deployment of *automated and connected public transport services* with associated business models,
 - automated freight and logistics use cases, in particular for optimizing and securing operations on closed sites and the possibility of local delivery services, on the public highway or in mixed-use areas,
 - development of *connectivity*, to improve safety and optimize vehicle-infrastructure systems, particularly in support of automation.

The collaborative working methods that have proved their worth will be strengthened, by further involving local authorities on regulatory aspects and acceptability and societal aspects (already nearly, 70 of them - municipalities, agglomerations, departments and regions - are involved in projects) as well as connectivity and logistic stakeholders.

Conclusion

France is accelerating its efforts to harness the potential of automation and connectivity for mobility in all regions, territories and communities.

Automation

Public or shared transports

Services on closed sites (*) (e.g. leisure park, industrial site)

Services in open areas (e.g. university, hospital, commercial areas)

Point-to-point connections (e.g. downtown \leftrightarrow business park)

Automation of bus lines

On-demand services on predefined routes (including rural)

Train station feeder

Driving assists ADAS

Automated management of parking operations in parking lots (including recharging)

Logistic and freight

Optimization and security of operations on closed sites (*)

Point-to-point service (e.g.: logistics center downtown business)

Last mile deliveries

Connectivity

Road Safety Alerts

Hazardous road events

Presence of vulnerable users (pedestrians, cyclists)

Presence of intervention officers

Traffic rules

Traffic and access restrictions (routes, areas, bridges, tunnels)

Priorities to intervention vehicles

Roadworks (fixed, mobile)

Destination and route information

Availability of parking lots and E-charge

Travel time, traffic jams

Knowledge and predictive infrastructure maintenance

Support for automation

Cooperation with the infrastructure (e.g.: intersection lights, stops...)

Extended vision (ex: intersections...)

Cooperative maneuvers (e.g. insertion, priorities)

Remote intervention (e.g.: maneuvering order, user relations)

Monitoring and updating of on-board functions

(*): these use cases do not require the regulatory framework specifically dedicated to the circulation of automated vehicles on public roads, the framework mentioned in this document.