Levels of vehicle automation

SAE level 1

Driver assistance The system can control either steering or acceleration/braking, but not both at the same time.

Example: adaptive cruise control or lane-keeping assist. Only one of the two functions.



SAE level 2

Partial automation

The system can control both steering and acceleration/braking, but the driver must supervise and be ready to intervene.

Example: adaptive cruise control combined with lane-keeping assist. Both functions.



SAE level 3

Conditional automation

The system can perform all driving tasks unsupervised in certain conditions, but the driver must be ready to take control if necessary.

Example: Mercedes-Benz Drive Pilot. On a clear day on a motorway the car drives itself, but if the weather worsens it alerts the driver to take over safely.



SAE level 4

High automation The system can perform all driving tasks without human input in most conditions, but with limitations.

Example: Waymo's (Google) robotaxi in a mapped city. The car drives you to your destination without intervention but cannot leave that area.



SAE level 5

Full automation

The system can perform all driving tasks without human input in every scenario.

Example: a vehicle that drives you along motorways, city streets and rural roads, regardless of rain, snow or low visibility.









The car is driving.