

“Drive me home, Jack!”

Text — Jens Karbe Layout — Twinset

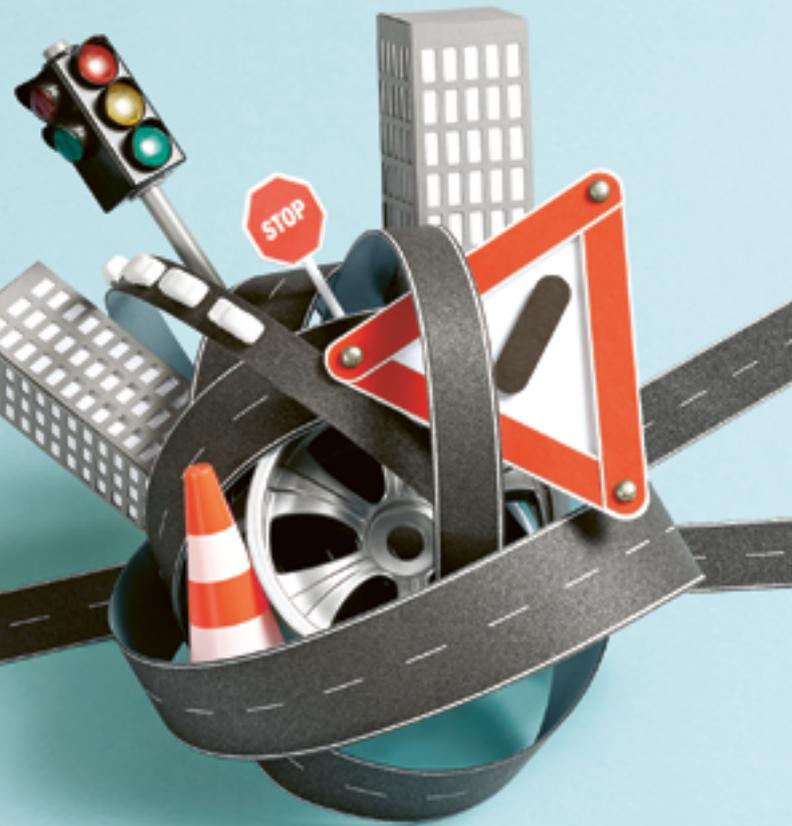
In 2030, “robot taxis” will be driving people around town – networked, intelligent, and fully automated. Developers have launched the “turbo boost” on the way toward the autonomous car. But there are still data security and liability issues to be clarified.

A utopia becomes reality

A sports car that can be summoned via a wristwatch and talks to the driver – the cult series “Knight Rider” rendered this vision back in the 1980s. And for some time now, engineers have been working on actual test vehicles; like “Stanley,” the VW Touareg that won a desert rally for autonomous vehicles near Las Vegas in 2005.

Little helpers make life easier

Today, our cars already contain a number of assistance systems that we take for granted. These are the first “evolutionary” precursors of autonomous driving.



New concepts are needed

Urbanization, ever more vehicles and massive congestion – our traffic system is on the verge of collapse: by 2035 the number of passenger cars worldwide will nearly double, to 1.7 billion. Even today, drivers spend an average of 38 hours a year stuck in traffic. In London and Beijing, they are moving as fast as people once did by horse-drawn coach – 16 km/h on average. Automated and autonomous driving means fewer traffic jams, less fuel consumption, and fewer accidents.

Drive or be driven

Everyone will be able to choose whether to drive themselves or not – and thus have full freedom in the use of their time. Experts predict that by 2030 only 45 percent of the driving distance we cover will be traveled in our own car. Car sharing and automated “robot taxis” will become increasingly popular.



Getting there faster with swarm intelligence

Cars of the future will be digitally connected with other vehicles (Car2Car) or traffic control systems: they will communicate with intelligent traffic lights and adjust their speed to ride a “green wave.” In parking garages, networked cars will automatically drive to free spaces.



Freight transport – fully networked

In “platooning,” multiple trucks drive in close single file. The driver of the lead truck sets the speed and direction, and the others follow automatically – with significant reductions in diesel consumption and CO₂ emissions.



Car with a super-brain

On a designated section of the A9 autobahn, Volkswagen is already testing a range of piloted-driving technologies. The Audi research car “Jack” autonomously handles all maneuvers on the highway and takes other vehicles into account when passing. A “traffic jam pilot” takes over in slow-moving traffic, independently braking and accelerating.



Green light for innovation

Almost nowhere in the world has driverless motoring yet been allowed. Germany and Europe have initiated legislation to allow drivers to leave more driving tasks to the car – even at higher speeds. The use of programmed algorithms to guide cars in the future will bring up certain ethical issues. Volkswagen supports the German Government’s plans to set up an ethics commission and open a dialogue with society.