Self-Driving Cars: The New Reality in Switzerland?

11.03.2025

Key takeaways

The Swiss Federal Ordinance on Automated Driving (OAD), which entered into force on 1 March 2025, establishes the legal framework for the approval and operation of autonomous vehicles in Switzerland.

The OAD permits highway pilot systems, driverless vehicles on designated routes and automated parking, subject to strict regulatory conditions:
- Highway pilot systems allow drivers to release the steering wheel but require them to remain ready to take control.
- Driverless vehicles are now permitted on designated routes, subject to cantonal approval and remote monitoring.
- Automated parking is permitted in designated areas without driver supervision, with cantons and municipalities determining suitable locations.

The civil liability regime remains unchanged: this means that the vehicle owners remain liable, regardless of fault.

Introduction

On 1 March 2025, Switzerland introduced a comprehensive regulatory framework for autonomous vehicles in the form of the Swiss Federal Ordinance on Automated Driving (OAD). This regulation establishes the legal basis for the approval, operation and supervision of automated driving systems. The OAD implements the legal framework established by the 2023 amendment to the Swiss Road Traffic Act (RTA), which granted the Federal Council authority to regulate three specific use cases of autonomous driving. The OAD aims to facilitate innovation while ensuring safety and legal certainty.

Key Regulatory Changes

The OAD introduces significant updates to the legal framework governing automated driving. The key changes include:

- Autopilot systems on highways: Drivers of automated vehicles can activate a highway pilot system, which allows them to release the steering wheel without needing to continuously monitor the vehicle or traffic. However, they must be ready to retake control at any time if prompted by the system.
- Automated parking: Vehicles can park autonomously in designated and signposted parking areas without a driver present. Cantons and municipalities determine suitable locations, guided by federal recommendations.
- Driverless vehicles on approved routes: Driverless vehicles are now permitted on designated routes approved by the cantonal authorities. The safety net in this case lies with the requirement that these vehicles must be monitored remotely by an operator, who can intervene when needed. This use case is especially relevant for buses, freight transport and last-mile passenger services.

While the proposed changes will not fundamentally change the practical reality for the time being due to the strict control and monitoring responsibilities in place, the enactment of the OAD can be considered a first step towards a framework that will allow flexible adaptations to technological progress.

Classification of Automated Vehicles

It is important to distinguish between automation systems and driver assistance systems. Assistance systems, such as lane-keeping assist, support the driver but do not take over driving. The driver remains fully responsible and must keep their hands on the wheel and continuously monitor traffic, even with advanced features such as automated lane changes. By contrast, automation systems can fully assume driving tasks, manage various traffic scenarios and operate independently.

The OAD distinguishes between three categories of automated vehicles (Art. 2 OAD):

(i) Vehicles with takeover prompts: These vehicles alert the driver when human intervention is required.

(ii) Automated parking vehicles: These vehicles can autonomously move between a drop-off location and a parking space without supervision.

(iii) Driverless vehicles: These vehicles can operate independently without human presence for the entirety of their journey.

Each category is subject to specific regulatory requirements regarding approval, liability and operational conditions.

Based on Standard J3016 of the Society of Automotive Engineers (SAE), automated vehicles are internationally classified according to six levels, ranging from non-automated (level 0) to fully automated (level 5). Levels 1 and 2 involve driver assistance systems that require continuous supervision, while level 3 introduces conditional automation, allowing the vehicle to take over driving tasks under specific conditions without constant driver attention. At level 4, highly automated vehicles can operate independently within predefined environments, and level 5 represents full autonomy in all conditions.

The OAD applies to automation systems starting from level 3, with level 3 systems now permitted on highways and level 4 systems allowed within specific operational areas for driverless vehicles. Vehicles up to and including level 2 are not covered by the OAD.

The provisions of the OAD supplement and modify existing road traffic regulations, which remain applicable unless explicitly amended or excluded.

Operational Requirements

Vehicles with Takeover Prompts

Drivers of vehicles with level 3 automation are only permitted to activate the autopilot system on highways. The driver may release the steering wheel but must be prepared to take control at any time. Engaging in activities that could impair reaction time, such as reading, watching videos or texting, is prohibited. The driver's field of vision must remain unobstructed.

To date, no vehicles with automated driving systems have been approved in Switzerland. Several OEMs have announced that they are assessing the option to apply for the approval of their automated driving systems in Switzerland.

Automated Parking Systems

Automated parking is allowed in designated and signposted parking garages and lots. However, this is only permitted in areas explicitly approved for automated vehicle operation.

In practice, this means the driver exits in a designated area, and the car independently moves to an available parking space. Upon return, the vehicle can be "summoned" to the same drop-off zone and will drive back autonomously. Currently, no such parking garages exist in Switzerland.

Vehicles must be equipped with a certified automated parking system and comply with cybersecurity and data logging requirements. The responsibility for identifying suitable parking areas lies with the cantons or municipalities.

Fully Driverless Vehicles

The operation of fully driverless vehicles requires approval from the competent cantonal authorities for the vehicle itself as well as the specific operational route. Vehicles must be monitored by a remote operator, who must meet specific qualification requirements and must be a natural person (human oversight).

If the vehicle encounters a situation that it cannot handle autonomously, the system may request operator intervention. Operators must be able to initiate emergency manoeuvres and communicate with passengers. Vehicles must include failsafe mechanisms in case of communication loss.

While these provisions open the door to new mobility solutions such as driverless shuttles and delivery vehicles, there are currently no designated routes or approved vehicles for such use in Switzerland.

The RTA also allows for the possibility of permitting small, low-speed driverless vehicles under simplified conditions. These vehicles, such as autonomous delivery robots, could operate without requiring operator supervision or route restrictions.

Data Protection and Data Management

The OAD introduces regulations on data processing, distinguishing between driving mode recorder data, which is largely covered by the RTA, and data used by public authorities for enforcement purposes.

All autonomous vehicles must be equipped with a driving mode recorder that logs system activations, deactivations, emergency manoeuvres and incidents. The processing of this data is subject to strict legal conditions.

Liability

The introduction of autonomous vehicles raises critical questions of civil liability. Under the OAD, the existing liability framework remains unchanged. As was the case before with traditional vehicles, owners of autonomous vehicles remain strictly liable for accidents with injury to human beings or damage to property, regardless of fault.

However, the owner may take recourse on the driver if they demonstrated behaviour at fault. Driver responsibility varies depending on the level of automation. For vehicles with takeover prompts, the driver is only required to intervene when prompted or in case of system malfunctions. If an accident results from a system defect while the vehicle is in autonomous mode, the driver may not be held responsible. However, failure to assume control when required could result in liability. Therefore, drivers of autonomous vehicles must understand the system’s functions, as they must always be ready to take control.

Manufacturers remain subject to the Swiss Product Liability Act (PLA), meaning they may be held accountable for system defects leading to accidents. Given these developments, manufacturer liability is expected to become increasingly significant.

Additionally, the OAD introduces reporting obligations for safety incidents, requiring operators and manufacturers to notify authorities in case of system failures or malfunctions that pose safety risks.

Next steps

The new legal framework provides a foundation for the deployment of automated vehicles in Switzerland. However, its practical impact will depend on market adaptation. Car manufacturers must develop and market compliant vehicles, consumers must be willing to adopt automation technology and innovative concepts such as ride-sharing vehicles. Insurers may need to adjust their policies to reflect new risk structures. As the legal and technological landscape evolves, further regulatory refinements are likely to address emerging challenges and ensure the safe integration of autonomous mobility into the Swiss transport system.

Authors: Joëlle Marciano (Associate), Markus Winkler (Counsel)

No legal or tax advice

This legal update provides a high-level overview and does not claim to be comprehensive. It does not represent legal or tax advice. If you have any questions relating to this legal update or would like to have advice concerning your particular circumstances, please get in touch with your contact at Pestalozzi Attorneys at Law Ltd. or one of the contact persons mentioned in this legal update.

Lara Dorigo

Partner
Attorney at law, LL.M. in Trade Regulation
Head IP & TMT

Pestalozzi Attorneys at Law Ltd
Feldeggstrasse 4
8008 Zurich
Switzerland
T +41 44 217 92 15
lara.dorigo@pestalozzilaw.com

Fabian Martens

Partner
Attorney at law, LL.M., LL.M., MA

Pestalozzi Attorneys at Law Ltd
Feldeggstrasse 4
8008 Zurich
Switzerland
T +41 44 217 92 04
fabian.martens@pestalozzilaw.com