

**CIVIL LIABILITY AND AUTONOMOUS VEHICLES - CURRENT REGIMES AND TENDENCIES IN
THE EU
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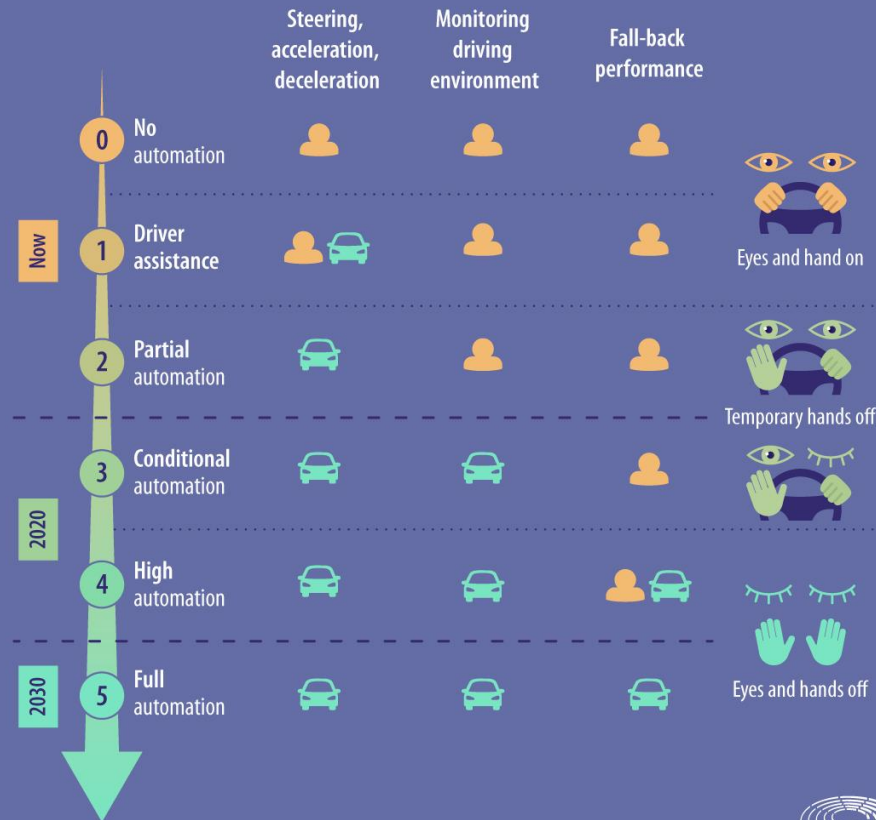
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INTRODUCTION TO AUTONOMOUS VEHICLES AS ARTIFICIAL INTELLIGENCE

- In the rapidly evolving landscape of transportation, a remarkable revolution is underway, powered by Artificial Intelligence (AI) – the advent of autonomous vehicles. Autonomous vehicles, often referred to as self-driving cars or driverless cars, represent the pinnacle of AI-driven innovation in the automotive industry. These cutting-edge machines are designed to navigate roads, make decisions, and interact with their surroundings, all without human intervention.
- At their core, autonomous vehicles are essentially mobile AI systems equipped with an array of sensors, cameras, and sophisticated algorithms. They utilize machine learning techniques to process vast amounts of data in real-time, enabling them to perceive their environment, recognize obstacles, and make split-second decisions to ensure safe and efficient travel. The promise of autonomous vehicles lies in their potential to revolutionize the way we commute, reducing accidents, alleviating traffic congestion, and enhancing the accessibility of transportation for people of all abilities.
- This introduction delves into the exciting world of autonomous vehicles, where AI technologies are reshaping the future of mobility, making roads safer, and opening up new possibilities for urban planning, logistics, and beyond.



LEVELS OF DRIVING AUTOMATION



Sources: EPRS, European Commission



europarl.eu

AUTONOMOUS VEHICLES ARE USUALLY SEPARATED INTO FIVE LEVELS BASED ON THE SOCIETY OF AUTOMOTIVE ENGINEERS CLASSIFICATION SYSTEM

- Level 0: no driving automation
- Level 1: driver assistance
- Level 2: partial driving automation
- Level 3: conditional driving automation
- Level 4: high driving automation
- Level 5: full driving automation
- Assisted driving technology refers to technology that assists humans in the driving process, but still requires a driver to make judgments and operate a vehicle (levels 1 and 2). Automation driving technology refers to artificial intelligence (AI) technology that vehicles use to intervene, make decisions, and control operations (levels 3-5)

REGULATION (EU) 2019/2144 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 27 NOVEMBER 2019 ON TYPE-APPROVAL REQUIREMENTS FOR MOTOR VEHICLES AND THEIR TRAILERS, AND SYSTEMS, COMPONENTS AND SEPARATE TECHNICAL UNITS INTENDED FOR SUCH VEHICLES, AS REGARDS THEIR GENERAL SAFETY AND THE PROTECTION OF VEHICLE OCCUPANTS AND VULNERABLE ROAD USERS

- ‘automated vehicle’ means a motor vehicle designed and constructed to move autonomously for certain periods of time without continuous driver supervision but in respect of which driver intervention is still expected or required;
- ‘fully automated vehicle’ means a motor vehicle that has been designed and constructed to move autonomously without any driver supervision;



ARTICLE 11 SPECIFIC REQUIREMENTS RELATING TO AUTOMATED VEHICLES AND FULLY AUTOMATED VEHICLES

- In addition to the other requirements of this Regulation and of the delegated acts and implementing acts adopted pursuant to it that are applicable to vehicles of the respective categories, automated vehicles and fully automated vehicles shall comply with the technical specifications set out in the implementing acts referred to in paragraph 2 that relate to: (a) systems to replace the driver's control of the vehicle, including signalling, steering, accelerating and braking; (b) systems to provide the vehicle with real-time information on the state of the vehicle and the surrounding area; (c) driver availability monitoring systems; (d) event data recorders for automated vehicles; (e) harmonised format for the exchange of data for instance for multi-brand vehicle platooning; (f) systems to provide safety information to other road users.
- However, those technical specifications relating to driver availability monitoring systems, referred to in point (c) of the first subparagraph, shall not apply to fully automated vehicles.

THE COMMISSION SHALL BY MEANS OF IMPLEMENTING ACTS ADOPT PROVISIONS CONCERNING UNIFORM PROCEDURES AND TECHNICAL SPECIFICATIONS FOR THE SYSTEMS AND OTHER ITEMS LISTED IN POINTS (A) TO (F) OF PARAGRAPH I OF THIS ARTICLE, AND FOR THE TYPE-APPROVAL OF AUTOMATED AND FULLY AUTOMATED VEHICLES WITH REGARD TO THOSE SYSTEMS AND OTHER ITEMS IN ORDER TO ENSURE THE SAFE OPERATION OF AUTOMATED AND FULLY AUTOMATED VEHICLES ON PUBLIC ROADS. THOSE IMPLEMENTING ACTS SHALL BE ADOPTED IN ACCORDANCE WITH THE EXAMINATION PROCEDURE REFERRED TO IN ARTICLE 13(2).

Uniform procedures and technical specifications



EU MEMBER STATES REGULATIONS

- In 2021, France and Germany were the first countries in the world to establish a legal framework for the deployment of autonomous vehicles in regular services.
- In Germany the regulation has been legally binding since May 2022. Autonomous fleets can be used in regular operation from 2023 – autonomous operation with remote control will be possible after a transitional period. The Federal Ministry for Digital and Transport is also providing model regions and living labs to promote the development of completely new, digitalized and connected mobility systems.
- The Association of German Transport Companies (VDV) already lists more than 40 autonomous shuttle bus projects in regional and local public transport. However, most of them travel at low speed, on fixed routes and still with safety drivers.
- In France since September 2022, autonomous vehicles up to Level 4 and without drivers on board have been allowed in mixed traffic on public roads – but they do require remote control.

CIVIL LIABILITY CONCERNS

- The rapid advancements in autonomous vehicle technology have raised important legal questions regarding civil liability. As autonomous vehicles (AV) become a reality and legislation in certain countries allows fully automated driverless driving on public roads, it is essential to establish a comprehensive legal framework that addresses potential liability concerns.
- This contribution examines the current regime and emerging tendencies in the European Union (EU) regarding civil liability for autonomous vehicles. In most countries, the established liability regimes only consider conventional traffic in which the vehicle is under the total control of the human being, and the liability in place is fault-based and/or risk-based liability, depending on the national law.

EXISTING REGIME FOR AUTOMOBILE LIABILITY

FAULT-BASED LIABILITY

- 90% of all traffic accidents originate in wrongdoing by the drivers or other traffic participants
- All EU legal systems have some form of fault-based liability in place.
- In practice this liability plays a subordinate role – more efficient forms of loss distribution have been developed

STRICT (RISK-BASED) LIABILITY

- Austria, Germany and France have comprehensive risk-based liability for motor vehicles.
- Other EU MS provide significant exceptions - limit its sphere of application or the range of compensable losses

INCREASING AUTOMATIZATION EFFECT

It reduces the level of control of the individual user and narrows the scope of fault-based liability. In the absence of alternative defendants, the victim will seek compensation from the manufacturer

EXAMPLE FROM PRACTICE

- The German Road Traffic Act was recently adopted but remains unsatisfactory because it still does not govern level 5 cars, which is a hindrance to further technical evolution. The liability regime remains unchanged, so the vehicle owner as well as the driver are liable for damages. The definition of "driver" under the new law covers the person activating an automated system.
- The Product Liability Act governs product liability claims in Germany, and, as in France, claims can be brought against the producer of a defective product or the producer of a component part.
- Whether the concept of "producer" extends to the manufacturer of the autonomous vehicle's software remains untested.

CURRENT REGIME

- Existing legal principles and frameworks primarily govern the EU's current regime for autonomous vehicles.
- Let's consider the Product Liability Directive and national traffic laws. There are several possibilities: the automotive company (car manufacturer), the supplier, the software provider, the software operator, the AV owner, the driver, the car's occupants, the insurance company, among others. For example, under the Product Liability Directive, manufacturers can be held strictly liable for damages caused by defective autonomous vehicles. However, determining liability becomes complex when autonomous vehicles operate in mixed traffic environments involving human-driven and autonomous vehicles. This situation has led to debates over the appropriate distribution of liability between manufacturers, drivers, and other parties involved in accidents.

INITIATIVE FOR NEW PRODUCT LIABILITY DIRECTIVE - BACKGROUND

- On 20 October 2020, the European Parliament adopted a legislative-initiative resolution on a civil liability regime for artificial intelligence. In this resolution, Parliament called on the Commission to put forward a proposal for a regulation laying down rules on the civil liability claims of natural and legal persons against operators of AI systems.
- Regarding the existing PLD - the directive has several shortcomings:
 - it was legally unclear how to apply the PLD's decades-old definitions and concepts to products in the modern digital economy and circular economy (e.g. software and products that need software or digital services to function, such as smart devices and autonomous vehicles);
 - the burden of proof (i.e. the need, in order to obtain compensation, to prove the product was defective and that this caused the damage suffered) was challenging for injured persons in complex cases (e.g. those involving pharmaceuticals, smart products or AI-enabled products);

TERM PRODUCT – IN THE PROPOSAL

- ‘product’ means all movables, even if integrated into another movable or into an immovable. ‘Product’ includes electricity, digital manufacturing files and software;
- In respect of AI in particular, this proposal confirms that AI systems and AI-enabled goods are “products” and therefore fall within the PLD’s scope, meaning that compensation is available when defective AI causes damage, without the injured person having to prove the manufacturer’s fault, just like for any other product. Second, the proposal makes it clear that not only hardware manufacturers but also software providers and providers of digital services that affect how the product works (such as a navigation service in an autonomous vehicle) can be held liable.

INTERPRETATION OF THE PROPOSAL

- Third, the proposal ensures that manufacturers can be held liable for changes they make to products they have already placed on the market, including when these changes are triggered by software updates or machine learning.
- Fourth, the revised PLD alleviates the burden of proof in complex cases, which could include certain cases involving AI systems, and when products fail to comply with safety requirements.
- As a complement to these changes, the parallel proposal for a directive on fault-based liability for AI seeks to ensure that, where an injured person has to prove that it was somebody's fault that an AI system caused damage in order to obtain compensation under national law, the burden of proof can be alleviated if certain conditions are met

CHALLENGE

ALGORITHMIC AND MANUAL DRIVING WORK TOGETHER

- The true cause of the traffic accident (technical flaw or human error) will be hard to detect for an injured party.
- Relying on fault or risk-based liability is an important choice: fault liability may be unlimited but hard to establish, and strict liability may be capped.
- Fault liability connects to potential flaws of the driver (not resuming control of the vehicle in due time), or the keeper who may have abstained from installing crucial updates or otherwise failed to properly maintain the vehicle
- Strict liability connects to defects in the vehicle and the claim is addressed against the producer



PROBLEM

INSIGHT INTO THE ACTUAL OPERATION OF THE VEHICLE OR ITS INHERENT FEATURES ARE NOT EASILY ACQUIRED BY THE VICTIM OR COSTLY EXPERTS IS NEEDED

STRICT LIABILITY IMPORTANCE

It is presumed by legal doctrine that the existing strict liability regime for motor vehicles in the MS will be applicable to autonomous vehicles as well.

The current legal systems do not distinguish between conventional or self-driving cars.

Differences between existing strict liability regimes will impact upon the handling of accidents involving self-driving cars

SUBJECT OF LIABILITY-STRICT LIABILITY

- Germany and Austria – the keeper of the vehicle bears the risk
- France- the vehicle gardien (guardian) as well as the driver (if not the same person)
- Dutch – the owner but only if there is no keeper (person who has lasting use of the vehicle)
- Italy – the owner unless there is usufructuary
- Poland – liability is attributed on the basis of the property law concept of independent possession

INJURED PARTY'S PERSPECTIVE

The distinction between the keeper, owner or the driver is irrelevant because of the action directe – liability insurer

SPECIFIC INSURANCE SOLUTION FOR AV

- Automated and Electric Vehicles Act 2018 of the English regulator – English law does not recognize a risk-based liability in the area of motor vehicle accidents
- According to sec 2 para 1 AEVA, the insurer is liable for damage suffered by the insured or any other person as a result of an accident caused by an insured automated vehicle driving itself on a road or other public place in GB.
- This cover cannot generally be excluded or limited by the insurer, whether under the contract of insurance or otherwise.
- Comprehensive harm included death, personal injury and property damage. It excludes damage to the automated vehicle itself and cargo or property in the custody or control of the insured.

TENDENCY

- the EU is actively exploring the possibility of developing specific legislation on autonomous vehicles.
- Moreover, the EU member states have taken individual measures to adapt their legal systems to autonomous vehicles. Some countries have introduced specific liability regimes for autonomous driving, establishing a presumption of liability for manufacturers. These developments indicate a growing trend toward imposing a greater degree of liability on manufacturers and technology providers to ensure the safe operation of autonomous vehicles.