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Autonomous and Automated Vehicles in Germany and Hungary, with Special Attention to the Question of Civil Liability

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Abstract. The most frequent questions associated with autonomous vehicles both in the world press and in legal literature are those that look for the answer as to who is responsible for the accidents caused by these machines. However, only a few such questions deal with the issue that all factums apply different definitions, and the terminology is the basis of applying the particular factum. So, among others, answering the question is inevitable as to whether the autonomous or automated vehicle can be considered a 'vehicle', or the human sitting in the car can be considered the 'driver'. If we decide not to consider the autonomous vehicle to be a vehicle, and – ad absurdum – we create an independent, sui generis category of vehicles, then the legal factums regarding the definition of the vehicle will not be applicable to the factum concerning the history of autonomous vehicles; however, their applicability will surely be questioned. With regard to this, I focus in my study on how the German Road Traffic Act (*Straßenverkehrsgesetz*) accommodates more advanced automated vehicles, and after this I compare the Hungarian and German rules that are relevant in terms of civil liability if we study the vehicles in question.

Keywords: autonomous vehicle, automated vehicle, liability, Germany, Hungary

1. Introduction

The aim of this study is to provide a brief insight into German legislation that regulates issues where autonomous vehicles are concerned or refers to civil liability regulations that can be applied in connection with autonomous vehicles as well. Furthermore, the study also aims to compare these laws with the Hungarian laws currently in effect. The role of Germany as a global powerhouse of automotive

vehicle manufacturing makes the analysis of its legislation inevitable, as it is clear that the German state does not want to fall behind its competitors. The study focuses on the regulations of the German Road Traffic Act (*Straßenverkehrsgesetz*, hereinafter StVG), the Product Liability Act (*Produkthaftungsgesetz*, hereinafter ProdHaftG), and the German Civil Code (*Bürgerliches Gesetzbuch*, hereinafter BGB), and it strives to cast light on the current state of German legislation relating to autonomous vehicles.

2. The German Road Traffic Act (*Straßenverkehrsgesetz*)

2.1. Regulation of Vehicle Categorization

The bill on automated vehicles was adopted in June 2017, which modified the StVG and defined the requirements towards highly and fully automated vehicles, and it also addressed the rights of the driver.[1]

Paragraph (1) of § 1a of StVG primarily states that the use of highly and fully automated vehicles is permitted under proper use.[2] Further, paragraph (2) of § 1a of StVG specifies the defining features of highly and fully automated vehicles:

– they are able to undertake driving tasks – with special attention to longitudinal and lateral control;

– they comply with traffic regulations during the operation of automated functions;

– the driver can manually override or deactivate the operation of the automated system at any time;

– they are able to recognize human intervention and to pass control over to the driver when it becomes necessary;

– they are able to warn the driver with visual, acoustic, palpable (haptic), or other signals about the necessity of resuming control; and provide sufficient advance warning for that;

– they are able to warn the driver if the system is not being operated in accordance with legal requirements.

It is worth noting that the StVG distinguishes two categories; however, these are not sharply separated.[3] The most developed automated vehicles – in other words, *self-driving vehicles* – are not included in the legislation. Certainly, the reason is that legal regulation would be too early for this field.[4]

1 Autovista Group 2019.

2 However, the StVG does not define the notion of proper use and who (the manufacturer or the legislator) has the right to define the indicative system of conditions.

3 Juhász 2020. 135.

4 Juhász 2020. 133–134.

In Hungary, Act I of 1988 on Road Traffic (hereinafter abbreviated as RTA) serves as the general legislation for road traffic. Paragraph (2) of § 47 of RTA defines a road traffic vehicle as 'road transportation and tow equipment (including self-propelled and towed equipment); the individual types of vehicles are defined in accordance with road traffic regulations'. The definition is rather abstract, the 1/1975. (II. 5.) joint Decree of the Ministry of Transport and Postal Services and the Ministry of Home Affairs on road traffic (hereinafter KRESZ) is commissioned to define the detailed regulations of individual types of vehicles.

As § 2 also suggests, Annex 1 of the KRESZ defines the various notions used in the decree:

– Part II point *a)* defines the notion of vehicle;
– Part II points *b–c)* provide the definitions of vehicle and automobile;
– Part II points *d–zs)* distinguish specific vehicle categories.

The KRESZ does not contain definitions either for automated or autonomous vehicles; however, it is becoming inevitable for the legislator to amend the annexes of the regulations as this is the only way to ensure that applying the framework disposition based on the notions employed by the KRESZ does not pose problems for the legislating bodies.

It is noteworthy that both Decree no 5/1990 (IV. 12.) of the Ministry of Transport, Communication, and Construction (abbreviated as KöHÉM) on road traffic vehicle safety inspection (hereinafter ER) and Decree no 6/1990 (IV. 12.) of the Ministry of Transport, Communication, and Construction (KöHÉM) on the technical conditions of first registration of vehicles and of maintaining them in traffic (hereinafter abbreviated as MR) are aware of the notion of autonomous vehicles for development purposes. According to point *b)* of paragraph (3b) of § 2 of the ER, an autonomous vehicle for development purposes is a 'vehicle for development purposes, which is designed to serve partially or fully automated operation and in which a test driver is seated who is considered as the driver of the vehicle and who can manually control the operation to the necessary extent in case of any situation that endanger traffic safety and who can resume manual control at any time of the operation'. Thus, these vehicles can be used only for testing purposes; their operation and their further technical conditions are regulated by Annex 17 of the MR. It demonstrates forward thinking that Annex 18 of the MR defines further categories: it distinguishes non-autonomous vehicles for development purposes, autonomous vehicles serving the development of partially automated operations, and autonomous vehicles serving the development of fully automated operations.

While German law defines the notions of highly and fully automated vehicles, Hungarian legislation operates with the notion of autonomous vehicle for development purposes. I am of the opinion that taking the content of ER and MR into account, Hungarian legislation should also discuss at least the use of

automated vehicles in road traffic as current practice shows that drivers already use various driving support systems.

2.2. The Notion of 'Driver'

Paragraph (4) of § 1a of the StVG clearly defines the driver also as a person who activates and uses the highly or fully automated driving functions, even if they do not have the type of control over the operation of the vehicle that the normal use of the automated function would require. The legislator requires all that from the driver of an automated vehicle, just like from other vehicle drivers. In this case, however, the goal of automated functions could fail easily.[5]

The KRESZ defines the driver as follows: 'the person who drives a vehicle or drives animals on the road'. The person riding a moped or a bicycle is not considered to be a driver. The same applies to student drivers as well: while learning to drive and during the driving examination, the instructor is to be considered as the driver of the car.

The criteria of driving are defined in § 4 of the KRESZ. The driver must have the necessary licence, cannot be banned from driving vehicles, and must be in a condition that ensures safe driving. The normative description clearly indicates that only a natural person can be considered as a driver,[6] wherefore the liabilities of the driver do not impose obligations onto other persons, such as the manufacturer of the autonomous vehicles, and cannot be applied to passengers as they are not considered as drivers.

Although the StVG explicitly states that the person activating and using the automated driving function is to be considered as the driver, I would argue that we can come to the same conclusion when assessing Hungarian law as well, as the notion of 'driver' defined by the KRESZ may also accommodate the users of automated vehicles.

Thus far, the users of automated vehicles are not discussed in either German or Hungarian legislations. Therefore, it can be noticed that in a legal case of a traffic situation involving an autonomous vehicle, neither the German nor the Hungarian court will have the means to treat the parties involved as 'equal', as the persons in the autonomous vehicle are not considered as being drivers according to the effective regulations of the StVG or the KRESZ.

5 Juhász 2020. 138.
6 Somkutas–Kőhidi 2017. 255–256.

2.3. Liability

Although the amended StVG added much to the legal text in force so far, the liability rules applicable to road traffic were not affected by the change.[7]

§ 1b of StVG regulates the rights and duties of the driver. Even though the highly or fully automated vehicles allow the driver not to focus their attention constantly on traffic and on the operation of the vehicle, they must still stay alert enough to be able to fulfil their responsibilities outlined by the regulations even while using the automated functions. In this respect, the most important task for the driver is to resume control over the vehicle immediately when the system warns them to do so or when they recognize that the conditions of the use of the automated functions are not proper anymore. It can be stated clearly that the StVG does not allow for the use of autonomous vehicles just yet.

It is worth discussing the issue of liability in more detail. § 7 of the StVG regulates the liability of the driver, according to paragraph (1) of which the owner of the vehicle is responsible for any damage or injury caused to people or property resulting from the operation of the vehicle, and paragraph (2) defines that being exonerated from the liability can only happen under *vis maior* (force majeure) conditions.[8] Paragraph (3) of § 7 of the StVG also regulates the case when a vehicle used without the awareness or the permission of the owner causes injury or damage. In such cases, the user is responsible for the injury or damage caused instead of the owner, on the stipulation that the liability of the owner prevails if the use of the vehicle became possible due to their fault. The rule is not to be applied if the user is employed by the owner to operate the vehicle, or the owner allowed the user to drive the vehicle. The liability of the owner is therefore objective: they can avoid liability only by referring to reasons outside their control such as being forced or the behaviour of a third party.

Vis maior (force majeure) in German law also indicates such an external reason that cannot be foreseen and avoided. It is easy to identify that the chances of referring to external reasons in connection with automated vehicles are rather low; however, such an external reason is possible if the vehicle becomes a victim of a hacker attack and the harm or damage results from that, or a certain defect in the transport infrastructure impacts on the operation of the vehicle.[9]

Paragraph (1) of § 12 of the StVG maximizes the limit of damages which may be awarded. While damages cannot exceed 5 million euros as a rule for causing bodily harm to a person, if the injury was caused by the use of a highly or fully automated system, the upper limit of damages is 10 million euros. If the vehicle causes damage to property, the maximum amount of damages is 1 million euros

7 Juhász 2020. 144.

8 However, the StVG 18. § (1) paragraph also defines drivers' liability on the basis of guilt.

9 Norton Rose Fulbright 2016.

as a rule, while in the case of damage caused by an automated system the damages that may be awarded are capped at 2 million euros.

The KRESZ in Hungary does not contain any special rules relating to the liability for compensation by the driver or other person, these issues being dealt with in Act V of 2013 on the Civil Code (hereinafter the Hungarian Civil Code).

3. The German Product Liability Law (*Produkthaftungsgesetz*)

German law also ensures the injured party the right to claim damages from the manufacturer of the product if the injury or damage was caused by a product defect. Paragraph (1) of § 1 of ProdHaftG declares that if a product defect results in injury or damage to persons or property, the manufacturer of the product must pay damages. Due to the harmonization of legislation in the European Union, the system of exceptions does not differ significantly from the content of the Hungarian Civil Code. Based on paragraph (1) of § 10 of ProdHaftG, the maximum amount of compensation cannot exceed 85 million euros in the case of personal injury. If the damage or injury is the result of some kind of product defect, the injured person can decide whether s/he claims compensation from the registered owner or from the manufacturer (just like in Hungary).

As the product liability rules in the European Union are harmonized (we can say unified; there are only slight differences among the Member States),[10] the comparison of the ProdHaftG and the Hungarian Civil Code is not necessary. However, it is worth mentioning that the Hungarian Civil Code does not maximize the amount of compensation; furthermore, it does not allow for defining the amount of compensation to be less than the total damage caused even under circumstances which would require special consideration.

It is also worth noting that the appearance of autonomous vehicles will demand the review of product liability rules in force as the injured party will not be able to prove the product defects in those cases when the accident has occurred due to a so-called design error. A possible solution could be presuming the existence of a product defect if the vehicle does not comply with the requirements laid down by public law rules.[11]

10 Lévayné Fazekas 2020. 238.
11 Ebers 2017. 119.

4. The German Civil Code (Bürgerliches Gesetzbuch)

4.1. Extra-Contractual Liability

The liability of the registered owner to pay compensation in German law is regulated not solely by the StVG. Paragraph (1) of § 823 of BGB declares that a person who, intentionally or negligently, unlawfully injures the life, body, health, freedom, property, or another right of another person is liable to provide compensation to the other party for the damage arising from this. There is a significant difference though: while the StVG maximizes the limit of compensation in connection with the objective liability, the BGB does not contain regulations relating to liabilities. Thus, the injured party can decide to claim compensation for his/her damage based on either one of these rules; however, if s/he can prove the wrongdoing of the registered owner, s/he might be entitled to a significantly higher amount compared to claiming compensation based on the objective liability regulated by StVG.

In Hungarian law, paragraph (1) of § 6:535 of the Hungarian Civil Code defines that a person carrying out hazardous activities shall compensate for the resulting damage. S/he shall be exempted from liability if s/he proves that the damage was caused by an inevitable event outside the scope of the hazardous activity. Operating any vehicle is always considered as a hazardous activity, which underpins the objective liability of the registered owner. Compared to the German law, the Hungarian law does not maximize the limit of compensation, and there is also no reason for the injured party to claim compensation based on wrongful conduct. The registered owner will therefore always be acutely liable for the damage caused, while based on the German law it might be justified to investigate whether the damage was caused by the registered owner deliberately or by negligence.

4.2. Contractual Liability

Besides the main regulation of liability based on wrongful conduct, the BGB contains various other factums of liability. It regulates extra-contractual and contractual liability; so does the Hungarian Civil Code. Paragraph (1) of § 280 of BGB states that if the obligor breaches a duty arising from the obligation, the obligee may demand damages for the damage caused thereby. This does not apply if the obligor is not responsible for the breach of duty. Based on the wording of the law, it can be concluded that the BGB provides the opportunity for compensation for the damage caused if four criteria are fulfilled simultaneously:

– there has to be a contractual situation;
– the liable party must breach their obligations arising from the contract;
– the liable party must be responsible for the breach of the contract;

– there must be a consequential relationship between the behaviour of the party breaching the contract and the damage caused to the injured party.[12]

Paragraph (2) and (3) of § 280 of the BGB identify two independent bases for liability; the German law makes a distinction within contractual liability, depending on whether the claimant claims compensation parallel to the fulfilment of the obligation, or the compensation is in lieu of the fulfilment of the obligation.

The key point of compensation instead of the fulfilment of the obligation is that the contract has not been fulfilled, wherefore the claimant claims compensation instead of the performance of the service. The law clearly defines the cases when the claimant is entitled to claim compensation instead of performance of the service. According to paragraph (1) of § 281 of the BGB, the first case is when the contracting party is in delay, meaning they do not perform the service by the time it is due. The same applies for defective performance if the defect is of such nature that it is not in the claimant's interest to accept the performance. The second case conforms to § 282 of the BGB, where the contracting party is obliged to consider the other party's rights or the contractual or other interests of the other party, but s/he does not do so, and with respect to this it cannot be expected from the other party to accept the performance. In case the performance becomes impossible, § 280 of the BGB allows a claim for compensation instead of performance.

According to paragraph (1) of § 286 of the BGB, compensation parallel to performance can primarily be claimed if the contracting party is in delay and does not perform in spite of the explicit notice from the claimant. Paragraph (2) of § 286 of the BGB defines the cases in which such an explicit notice from the claimant is not necessary. It is also possible that the contracting party does not fulfil his/her obligation of consideration (due care and attention). For example, if the object of the contract is the walls of a room getting painted, and the decorator spills paint on the carpet.[13] Despite breaching the contract, both parties are interested in maintaining the contract; both performance and compensation for the damage caused by the contracting party can be claimed.

Another condition of establishing liability is the consequential relationship between the behaviour resulting in the breach of contract and the damage caused as well as the contracting party being responsible for the breach of contract. According to paragraph (1) of § 276 of the BGB, the obligor is responsible for intention and negligence if a higher or lower degree of liability is neither laid down nor to be inferred from the other elements of the subject matter of the obligation, including but not limited to the provision of a guarantee or the assumption of a procurement risk. Paragraph (2) of § 276 of the BGB states that a person acts negligently if s/he fails to exercise reasonable care. The focal points

12 Belling–Szűcs 2012. 39.
13 Id. 38.

of the notion of due care are foreseeability and evitability; both categories require objective interpretation.[14] Paragraph (3) of § 276 of the BGB does not allow for stipulating exemptions from under liability for any damage caused deliberately.

In Hungarian law, § 6:142 of the Hungarian Civil Code states that a person who caused damage to another contracting party by breaching the contract shall be required to compensate for it. S/he shall be exempted from liability if s/he proves that the breach of contract was caused by a circumstance that was outside of his/her control and was not foreseeable at the time of concluding the contract, and s/he could not be expected to have avoided that circumstance or to have averted the damage. The liability of the person breaching the contract is therefore objective, and it is completely independent from his/her wrongful conduct; thus, Hungarian contractual liability is stricter than its German counterpart.

It is noteworthy that according to paragraph (2) of § 6:174 of the Hungarian Civil Code the obligee may claim damages for harm occurring in the subject of the service as a result of defective performance if repair or replacement is not possible, or if the obligor did not undertake to provide repair or replacement or was unable to perform this obligation, or if the obligee's interest in the repair or replacement has ceased to exist. Compensation therefore is the legal consequence for breach of contract with defective performance rather than instead of performance in general. The same applies to delay as well: the claim for compensation does not exclude the request of fulfilling the contract. The compensation for impossible performance is an exemption, which replaces performance in Hungarian law as well.

Similarly to the provisions of the BGB, § 6:152 of the Hungarian Civil Code states that contractual clauses limiting or excluding liability in case of damage caused by an intentional breach of contract or in case of a breach of contract which resulted in harm to human life, physical integrity, and health shall be null and void.

Furthermore, the Hungarian Civil Code specifies the so-called *non-cumul* principle, which excludes the claim of compensation of the injured party that is based on the rules of delictual liability, such as product liability, as long as the damage establishes the contractual liability of the obligor, too. In contrast, the *non-cumul* principle does not apply in the German law.

5. Concluding Remarks

According to Zsolt Ződi, 'the autonomous vehicle provides a great example that regulations have to be shaped when their application is close enough in time, as it is rather difficult to legislate for the unimaginable'.[15] Although the

14 Maklári 2005. 239.

15 Ződi 2018. 211–212.

time of autonomous vehicles has not come yet inevitably, automated vehicles may already be present. These vehicles provide the opportunity for the driver to suspend his/her control over the vehicle until the vehicle warns him/her about the necessity of retaking control. However, this is a new situation, so it may call for the amendment of effective regulation not only in the area of civil liability but also in that of road traffic law. If legislation in this field will not be subjected to harmonization within the European Union, the German practice may become an example to follow for other countries, including Hungary.

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