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Liability for Artificial Intelligence: A Proposal of the European Parliament

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Liability for Artificial Intelligence: A Proposal of the European Parliament

ABSTRACT. Digital autonomous systems are characterized by their ability to make their "own" decisions, i.e. decisions that are not fully determined by the software that animates them. As such, they pose a challenge to existing liability systems and to the general law of delict or torts. At the European level, the European Parliament took the initiative and drafted a Regulation on Liability for the Operation of Artificial-Intelligence-Systems it recommended for adoption by the Commission. The European Parliament distinguishes between high-risk-AI-systems, that shall be governed by a regime of strict liability, and "other" AI-systems, that create only normal risks and are left to fault-based liability, as defined in the legal systems of the Member States. With a view to the addressees of the new liability scheme, the draft regulation distinguishes between frontend- and backend-operators. The following chapter discusses the fundamental choices which the framers of the draft made. It concludes that the focus of the proposal on user liability is misguided, as the manufacturers are the central actors who determine the safety features of AI-systems. Moreover, introducing the concept of a backend-operator creates needless friction with the Products Liability Directive. While the commitment to strict liability for high-risk-AI-systems draws a wedge into existing regimes of strict liability under national law, the imposition of fault-based liability on users of ordinary AI-systems forces some Member States to roll back more generous rules of tort law.

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I. Introduction

The liability framework for digital systems that display features of artificial intelligence and can therefore make autonomous decisions is currently the subject of intense political discussion.[1] While the practical implementation of the technology is still much in its infancy, proposals for the readjustment of liability systems abound. When it comes to the liability risks of artificially intelligent systems, legal academia certainly cannot be accused of lethargy and sluggishness. If anything, it may be guilty of over-activism. It is received wisdom that bridges should be crossed only when getting there, and that social conflicts need resolution only when they actually arise. Particularly, but not only, legal systems based on case law proceed in an iterative fashion, whereby the law is developed from case to case and from individual problem to individual problem. It is not the business of the courts to redesign important segments of the law, and the same applies to jurisprudence.

Such a modest and cautious attitude is the better approach for dealing with new technical risks. At present, there is no one who can foresee with certainty the kinds of harm and of causal scenarios that we will one day have to deal with. Even the introduction of self-driving cars, the area which is at the forefront of industrial activity as well as the political and public eye, is something which can only be speculated about at present. It is uncertain what the role and importance of infrastructure operators in autonomous driving will be, how many car manufacturers will eventually survive in the digital environment, we don't know whether cars will continue to be distributed through sales transactions or if this practice will be replaced by rental contracts, it is impossible to foresee what mistakes autonomous vehicles will make and what exactly the accident scenarios will look like, etc. Accordingly, there are many good reasons to exercise caution and restraint. But these reasons appear not to convince everybody. The signs point to an imminent reform of the liability system or, at least, its adaptation to systems incorporating artificial intelligence.

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[1] Cf. SAMIR CHOPRA & LAWRENCE F. WHITE, A LEGAL THEORY FOR AUTONOMOUS ARTIFICIAL AGENTS 119–151 (2011); UGO PAGALL, THE LAWS OF ROBOTS 115–145 (2013); Gunther Teubner, *Digitale Rechtssubjekte? Zum privatrechtlichen Status autonomer Softwareagenten*, 218 ARCHIV FÜR DIE CIVILISTISCHE PRAXIS 155 (2018); HERBERT ZECH, Entscheidungen digitaler autonomer Systeme: Empfehlen sich Regelungen zu Verantwortung und Haftung?, in VERHANDLUNGEN DES DEUTSCHEN JURISTENTAGS, VOL. I (2020); Gerhard Wagner, *Verantwortlichkeit im Zeichen digitaler Techniken*, ZEITSCHRIFT FÜR VERSICHERUNGSRECHT 717 (2020).

Before jumping into the substance, a word on terminology is warranted: In the discussion about liability for digital autonomous systems, various terms are used whose meaning and relationship to each other are not entirely clear. The focus of the present chapter is on "digital autonomous systems". The decisive factor here is that the machine, appliance or software is able to make its "own decisions".[2] This is not the case where decisions have been predetermined by the programmer of the system, with the help of "if, then" commands written into computer code. Rather, the programming leaves a space for decision-making by the system itself, in the actual situation of action. This definition is not rooted in technical features or conceptual premises, but in the nature of the problem at hand, i.e. liability for autonomous systems, or AI systems for that matter. It is the ability of a technical device to make autonomous decisions that challenges traditional assumptions of the liability system. The imposition of liability for digital autonomous systems is a problem because a new actor has entered the field of tort law and has raised a previously unknown risk, specifically that of an artefact making its "own" decisions for which "someone", i.e. a natural person or other legal entity, must then be held responsible.[3]

With the analysis strictly focused on the legal aspects of the problem, it appears superfluous to explore the numerous technical questions concerning digital technologies that are difficult for lawyers to understand. The technical set-up of a digital system and the processes that it uses to make its own decisions need not be understood in any detail, but for the fact that its decisions are not deterministically fixed by its programming. For the same reason, the precise criteria for the classification of a system as artificially intelligent can be left open. Liability law is neither directed nor limited to intelligent people but applies to all persons, regardless of to their intelligence. The decisive factor is that persons make decisions which have safety implications.

Similarly, the fashionable term "Internet of Things" is also irrelevant for purposes of designing and applying tort law. This concept refers to the interaction between software-controlled machines and devices across digital networks, irrespective of whether these devices have

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[2] HIGH LEVEL EXPERT GROUP ON ARTIFICIAL INTELLIGENCE, A DEFINITION OF AI 1 (2019), https://digital-strategy.ec.europa.eu/en/library/definition-artificial-intelligence-main-capabilities-and-scientific-disciplines; Wagner, *supra* note 1, at 719 seq.

[3] Gerhard Wagner, *Robot, Inc.*, 88 FORDHAM L. R. 591 (2019); CHOPRA & WHITE, *supra* note 1, at 153–191; PAGALL, *supra* note 1, at 152–170; and the contributions in LEGAL PERSONHOOD: ANIMALS, ARTIFICIAL INTELLIGENCE AND THE UNBORN (Visa A. J. Kurki & Thoams Pietrzykowski eds., 2017).

autonomy or artificial intelligence. Again, from the perspective of tort law, all that counts is that the system is able to behave autonomously. Whether the digital program is embedded into a physical machine or appliance or rather operates as "stand alone" software on some computer is irrelevant. One well-known example of the latter case are so-called *robo-advisors*, which are currently challenging banking and securities law.[4] However, the fact that software, standing alone, is non-tangible does create problems for European product liability law because Art. 2 of Directive 85/374/EEC restricts the scope of its application to movables.[5]

A final clarification should be made: There is a segment of digital autonomous systems that makes the most impression on humans, namely those that display an anthropomorphic shape and outward appearance. In common parlance, these anthropomorphic digital systems are referred to as robots. Karl Capek introduced the term "robot" in his 1921 play R.U.R. (Rossum's Universal Robots), for servant machines looking like humans.[6] For liability rules, it is ultimately not decisive whether the thing in which the digital autonomous system is embedded is anthropomorphic or not. Nonetheless, anthropomorphic systems (robots) loom so large in people's imagination that, what otherwise seems unthinkable, is deemed possible, namely to promote digital artefacts to legal persons.[7] There is no rational reason for this, but that does not appear to diminish fascination with the idea.

II. The EU Commission Initiatives

When it comes to regulating liability for artificial intelligence, national approaches are inadequate. If self-driving cars are to be attractive to customers, they can't simply come to an abrupt stop upon crossing a national border because the software does not function in another country. The exorbitant costs associated with developing autonomous systems call

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[4] On this GERHARD WAGNER & LINA LUYKEN, Haftung für Robo Advice, in FESTSCHRIFT FÜR CHRISTINE WINDBICHLER 156 et seq. (Gregor Bachmann et al. eds., 2020).

[5] GERHARD WAGNER, Robot Liability, in LIABILITY FOR ARTIFICIAL INTELLIGENCE AND THE INTERNET OF THINGS, 27, 35–37 (Sebastian Lohsse, Reiner Schulze & Dirk Staudenmayer eds., 2019).

[6] KAREL CAPEK, R.U.R. (ROSSUM' UNIVERSIAL ROBOTS), (Paul Selver and Nigel Playfair trans., 1925/2001) http://preprints.readingroo.ms/RUR/rur.pdf.

[7] Curtis E. Karnow, *Liability for Distributed Artificial Intelligences*, 11 BERKELEY TECH. L. J. 147, 189 (1996); Bert-Jaap Koops, Mireille Hildebrandt & David-Olivier Jaquet-Chiffelle, *Bridging the Accountability Gap: Rights for New Entities in the Information Society?*, 11 MINN. J. L. SCI. & TECH. 497, 512–13 (2010); Gerhard Wagner, *Robot, Inc.*, 88 FORDHAM L. R. 591 (2019).

for an international approach to product design. For this reason, it is laudable that the EU, rather than national lawmakers, has taken up the issue. In its Communication on "Building a European Data Economy" of January 2017, the EU Commission did not limit itself to product safety, but included the issue of liability. In this regard, the fear was expressed that the current state of liability law is characterized by uncertainty, which hinders the introduction of digital technologies by companies and deters consumers from using such products.[8] One focus of the necessary reform work was identified in the area of the Product Liability Directive 85/374/EEC.[9] In 2018, the Commission set up an expert group to look into the further development of liability law with regard to digital autonomous systems, setting the goal of ensuring that the liability rules to be developed would facilitate the introduction of new technologies by strengthening investment, security, and user confidence.[10] The report of the *Expert Group on Liability and New Technologies* has been available since 2019.[11] On 19 February 2020, the Commission published a White Paper on the regulation of artificial intelligence, which contains considerations on the further development of liability law.[12]

III. Initiatives of the European Parliament

From the very beginning, the European Parliament has played a major role in formulating new liability rules for digital autonomous systems. Immediately after the publication of the Commission's communication on "Building a European Data Economy", the Parliament

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[8] EUROPEAN COMMISSION, COM(2017), 9 final, 4, 14; *cf. also* the related Commission Staff Working Document, SWD(2017) 2 final, 40 et seq.

[9] EUROPEAN COMMISSION, COM(2017), 9 final, 14.

[10] EUROPEAN COMMISSION, Call for Applications for the Selection of Members of the Expert Group on Liability and New Technologies 4, https://ec.europa.eu/transparency/expert-groups-register/screen/expert-groups?lang=en.

[11] EUROPEAN COMMISSION, REPORT FROM THE EXPERT GROUP ON LIABILITY AND NEW TECHNOLOGIES – NEW TECHNOLOGIES FORMATION (2019), available at https://www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/JURI/DV/2020/01-09/AI-report_EN.pdf.

[12] EUROPEAN COMMISSION, WHITE PAPER ON ARTIFICIAL INTELLIGENCE - A EUROPEAN APPROACH TO EXCELLENCE AND TRUST, COM(2020) 65 final, 15 et seq., https://ec.europa.eu/info/sites/info/files/commission-white-paper-artificial-intelligence-feb2020_de.pdf. *See also* the related Commission report, REPORT ON THE SECURITY AND LIABILITY IMPLICATIONS OF ARTIFICIAL INTELLIGENCE, THE INTERNET OF THINGS AND ROBOTICS, COM(2020) 64 final, 14 et seq., https://ec.europa.eu/info/sites/default/files/commission-white-paper-artificial-intelligence-feb2020_en.pdf.

adopted a resolution on "Civil Law Rules on Robotics" in February 2017, which aimed to introduce new liability rules.[13] The Parliament not only referred to traditional forms of strict liability and the associated insurance schemes, but also launched the idea of a new subject of liability, namely the digital system itself as a so-called ePerson.[14]

Fortunately, the Parliament has since moved away from the proposal to make digital autonomous systems liable subjects.[15] But it remained committed to the cause. In October 2020, a resolution was adopted formulating recommendations to the Commission for the regulation of civil liability regarding the use of artificial intelligence.[16] Remarkably, the Parliament did not limit itself to expressing an opinion on the subject, but also attached the full text of an EU regulation "on liability for the operation of artificial intelligence-systems". Such course of action is unusual, because the right to initiate legislation at Union level lies exclusively with the Commission (Article 17(2) TEU). Although the Parliament participates in the legislative process in various ways, it is not the main actor in the European legislative process, unlike parliaments in democratic nation states.[17] In particular, it has no right of initiative in the area of legislation. Therefore, the European Parliament lacks the powers to adopt its draft regulation or at least to feed it into the legislative process, simply because such a process does not yet exist with a view to the Draft Regulation. The only thing the Parliament can do is to call upon the Commission to draw up a legislative proposal (Art. 225 TFEU). It seems that, in the current case, the Parliament interpreted this power broadly, went ahead with drafting the proposal itself, and then submitted it to the Commission. The political purpose of this manoeuvre was probably to test the seriousness of a promise made by European Commission President von der Leyen during her campaign for election. In her candidacy speech before the European Parliament, she had confirmed her support for the long-standing demand of the European Parliament to be vested with a right of initiative, and promised to promptly act on legislative proposals from the

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[13] EUROPEAN PARLIAMENT, Civil Law Regulation in the Field of Robotics, Resolution of 16.2.2017, P8_TA-PROV(2017)0051, para 49 et seq.

[14] EUROPEAN PARLIAMENT, Civil Law Regulation in the Field of Robotics, Resolution of 16.2.2017, P8_TA-PROV(2017)0051, para 59, at f).

[15] *Cf.* Gerhard Wagner, *Robot, Inc.*, 88 FORDHAM L. R. 591 (2019).

[16] EUROPEAN PARLIAMENT, Regulation of Civil Liability for Artificial Intelligence, 20.10.2020, P9_TA-PROV(2020)0276; in addition, the Report with recommendations to the Commission for a regulation of civil liability in the use of artificial intelligence, rapporteur Axel Voss, 5.10.2020, A9-0178/2020.

[17] PAUL CRAIG & GÁRIANNE DE BÚRCA, EU LAW 155–156 (7th ed. 2020); MARIOS COSTA & STEVE PEERS, STEINER & WOODS ON EU LAW 29–30, 71 (14th ed. 2020).

Parliament should those be submitted.[18] In light of this political backdrop, the legislative proposal of the European Parliament must not be dismissed lightly. It is to be expected that the Commission will not be able to simply bypass it.

IV. Manufacturer vs. Operator Liability

The European Parliament believes that new liability rules for digital autonomous systems are necessary to ensure a uniform, future-proof legal framework across the Union.[19] Furthermore, it believes that digitization has triggered an intense global race in which the Union should avoid lagging behind. On the other hand, technical progress should not come at the expense of users suffering harm caused by AI systems.

A. Liability of the Operator

Against the background of this introduction, it comes as a surprise that the Parliament identifies the user or operator of the digital autonomous system as the primary addressee of the proposed liability regime.[20] According to Article 1 of the Draft Regulation, the aim is to establish rules for civil liability claims against "operators of AI-systems". Art. 3(a) and (b) Draft Regulation define the term AI system to mean digital autonomous systems in the sense used here, i.e. digital systems that are equipped with a certain degree of autonomy.[21] Since it is the autonomy and not the (artificial) "intelligence" of the system that is important, the term digital autonomous systems will be used interchangeably with the term used in the Draft Regulation, namely AI-system.

The fundamental question remains why the operators, i.e. the users of these systems, are identified as the main targets of the proposed liability scheme. Without ignoring the many differences of opinion, the discussion about liability for digital autonomous systems thus far has led to the conclusion, widely shared, that the advent of digital technology expands the

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[18] URSULA VON DER LEYEN, OPENING STATEMENT IN THE EUROPEAN PARLIAMENT PLENARY SESSIONS 9 (Strasbourg 16.7.2019): "And third – yes, I support a right of initiative for the European Parliament. When this House, acting by majority of its Members, adopts Resolutions requesting the Commission to submit legislative proposals, I commit to responding with a legislative act in full respect of the proportionality, subsidiarity, and better law-making principles." (https://ec.europa.eu/info/sites/info/files/opening-statement-plenary-session_en_fr_de.pdf).

[19] EUROPEAN PARLIAMENT, P9_TA-PROV(2020)0276, 5, para 2.

[20] EUROPEAN PARLIAMENT, P9_TA-PROV(2020)0276, 6, para 10.

[21] *Supra* Part I.

role and responsibility of manufacturers while diminishing the control and responsibility of users.[22] It is easy to see why. Compared with legacy products of the analogue world, the user largely forfeits his influence over the "behavior" of the appliance, while control by the manufacturer increases. Automobiles are a classic example. Traditional vehicles driven by humans are subject to the decisions of their users, who determine their speed and direction of movement. Self-driving cars, on the other hand, follow a computer program developed and installed by their respective manufacturer or by one of its suppliers. If any individual or firm has any influence at all on the behavior of the autonomous system, it is the manufacturer. Given that the manufacturer's control over the system increases and that of the user decreases, liability must also shift accordingly, away from the user and towards the manufacturer.[23] Where the possibility of controlling risk rests with a person or firm, tort law must provide the necessary incentives for the individual or corporation to make use of these possibilities, to balance the costs and benefits of safety measures, and to implement the desirable level of safety.

B. Frontend and Backend Operators

With its focus on the operator of the autonomous system, the Parliament's Draft Regulation appears to separate liability from control. If users have little or no control over the system, it seems wrong to single them out as primarily responsible for harm caused in the course of operation of a digital autonomous system.

As a closer look into the Draft Regulation reveals, the Parliament did not go this far, however. The proposed Regulation divides the class of operators into two groups, the so-called "frontend operators" and the "backend operators" (Art. 3 (d) Draft Regulation). According to Art. 3(e) of the Draft Regulation, persons are to be classified as "frontend operators" if they "exercise … a degree of control over a risk connected with the operation and functioning of the AI-system and derive benefits from its operation".

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[22] Mark Geistfeld, *A Roadmap for Autonomous Vehicles: State Tort Liability, Automobile Insurance, and Federal Safety Regulation*, 105 CAL. L. REV. 10, 95 seq. (2017); GERHARD WAGNER, Robot Liability, in LIABILITY FOR ARTIFICIAL INTELLIGENCE AND THE INTERNET OF THINGS, 27, 37–39 (Sebastian Lohsse, Reiner Schulze & Dirk Staudenmayer eds., 2019); IDEM, *Produkthaftung für autonome Systeme*, 217 ARCHIV FÜR DIE CIVILISTISCHE PRAXIS 707, 709 seq, 761 et seq. (2017); IDEM, supra note 1, at 724 seq.; ZECH, supra note 1, at A 88 seq.

[23] GERHARD WAGNER, Robot Liability, in LIABILITY FOR ARTIFICIAL INTELLIGENCE AND THE INTERNET OF THINGS, 27, 37–39 (Sebastian Lohsse, Reiner Schulze & Dirk Staudenmayer eds., 2019); IDEM, *Robot, Inc.*, 88 FORDHAM L. R. 591, 602–603 (2019).

The concept of "frontend operator" is defined by the two elements of power of disposition (control) and internalization of benefits, which are familiar from the German law on strict liability, but also from the French concept of "gardien du chose".[24] In these contexts, they define the concepts of the keeper – quasi-equitable owner – of an animal, a motor vehicle or another source of danger.[25]

The counterpart to the frontend operator is the backend operator, which is defined in Art. 3(f) Draft Regulation as a person "who, on a continuous basis, defines the features of the technology and provides data and an essential backend support service and therefore also exercises a degree of control over the risk connected with the operation and functioning of the AI-system". In short, the backend operator is the manufacturer of the digital autonomous system, or rather, all suppliers and manufacturers of component parts that contributed to the final product may qualify as backend operators. The European Parliament itself draws this parallel when it suggests to the Commission to include the backend operator into the definition of "producer" under the law of product liability, when revising Art. 3 (1) of the Product Liability Directive.[26] Depending on the exact direction in which digital technology will evolve, this legislative move might not be necessary. It is to be expected that the manufacturers of digital autonomous systems will remain "in touch" with their products even after they have been placed on the market, by updating the controlling and other software, possibly servicing and providing further services for the product and, in particular, supplying data. Insofar as this happens, they automatically qualify as producers under Art. 3 (1) Product Liability Directive.[27]

C. The Backend Operator as Manufacturer

What led the authors of the Parliamentary Draft to focus liability on the operator, to split the concept of operator into two divisions and to define the backend operator in such a way that it is almost fully congruent

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[24] GERHARD WAGNER, Custodian's Liability, in THE MAX PLANCK ENCYCLOPEDIA OF EUROPEAN PRIVATE LAW VOL. 1, 441–442 (Jürgen Basedow, Klaus J. Hopt & Reinhard Zimmermann eds., 2012); IDEM, Strict Liability, in THE MAX PLANCK ENCYCLOPEDIA OF EUROPEAN PRIVATE LAW VOL. 2, 1607–1609 (Jürgen Basedow, Klaus J. Hopt, Reinhard Zimmermann, eds.).

[25] *Cf. only* GERHARD WAGNER, DELIKTSRECHT, Chapter 8 para 25 et seq. (14th ed., 2021); FRANCOIS TERRÉ, PHILIPPE SIMLER, YVES LEQUETTE & FRANCOIS CHÉNEDÉ, DROIT CIVIL. LES OBLIGATIONS, para 1011 (12th ed., 2018).

[26] EUROPEAN PARLIAMENT, P9_TA-PROV(2020)0276, 6, para 8.

[27] *Cf. generally* SIMON WHITTAKER, LIABILITY FOR PRODUCTS 521–527 (2005).

– at least in the case of autonomous digital products – with the concept of the producer under product liability law? The two subdivisions of frontend and backend operator were not invented by the European Parliament, but were taken from the final report of the New Technologies Formation of the expert group set up by the Commission.[28] Within the expert group, opinions had been divided as to whether liability should be directed towards the producer or the user and whether the user should be addressed as such, or as owner or holder instead.[29] The compromise that emerged was, firstly, to settle on the quasi-neutral concept of "operator", and then, secondly, to subsequently split the concept of operator into the two categories of frontend and backend operator.[30]

It may be assumed that in the search for a compromise, the expert group also took into account that its mandate did not include the reform of the Product Liability Directive. In fact, a second expert group had been assembled by the Commission and put to the task of revising the Product Liability Directive. Its final report has not yet become available, which is not surprising, as the revision of the Product Liability Directive will re-open a range of highly controversial issues. If the New Technologies Formation expert group had opted in favor of placing liability on the producer, its mandate would have been exhausted together with this decision. Obviously, the group found a way out of this conundrum by holding the operator of the digital autonomous system liable, but then to integrate the manufacturer into the concept of operator, using the newly invented concept of backend operator. Thus, the function of the backend operator is to develop the product liability law outside of the Product Liability Directive. The camouflaging function of the concept of backend operator is illustrated by the example provided by the expert group itself: self-driving cars.[31] Here, the manufacturer of the vehicle, who continues to update the control software, to provide navigation data and to determine the intervals for maintenance even after the vehicle has been placed on the market, qualifies as backend operator. In such a case, the conflict between the liability of the frontend operator and the responsibility of the backend operator shall be resolved, according to the European Parliament, to the effect that the backend operator is solely liable.[32] This example makes it plain and clear that the classification of manufacturers as backend operators *de facto* duplicates the liability regime of the Product Liability

[28] EUROPEAN COMMISSION, *supra* note 11, at 41.
[29] EUROPEAN COMMISSION, *supra* note 11, at 40 seq.
[30] EUROPEAN COMMISSION, *supra* note 11, at 40 seq.
[31] EUROPEAN COMMISSION, *supra* note 11, at 41.
[32] EUROPEAN COMMISSION, *supra* note 11, at 41 seq.

Directive. The Draft Regulation of the Parliament suggests the establishment of a second category of product liability next to the Product Liability Directive.

D. Comparison with the Product Liability Directive

With the duplication of product liability in the Draft Regulation, the Parliament makes room for a fresh look at producer liability – under the guise of liability as backend operator and thus outside and beyond the scope of the Product Liability Directive. This leeway is then used to subject the operators of digital autonomous systems, who expose others to a high risk of harm, to strict liability for personal injury and damage to property (Art. 4 (1) Draft Regulation). Unlike product liability under Directive 85/374/EEC, this liability is truly strict because it is not dependent on proof of defect, i.e. on proof that the digital autonomous system was defective within the meaning of Art. 6 of the Directive at the time it was placed on the market by the manufacturer/backend operator.[33] On the other hand, for operators of digital autonomous systems that do not cause high risks, fault-based liability continues to apply (Art. 8 Draft Regulation). This regime does not conform to the Product Liability Directive either, because liability remains based on the conduct-oriented concept of fault rather than on the result-oriented concept of defectiveness. Thus, the term "high risk", as defined in Art. 3(c) of the Draft Regulation, is pivotal in separating the two regimes of strict liability and fault-based liability. Under Art. 3 (c) Draft Regulation, a digital system causes high risks if it has a significant potential to "cause harm or damage to one or more persons in a manner that is random and goes beyond what can reasonably be expected".

E. Interplay with the Product Liability Directive

The Parliamentary Draft thus deviates from the Product Liability Directive in two ways: on the one hand, it tightens the liability of manufacturers of high-risk systems within the meaning of Art. 3 (c) of the Draft Regulation in subjecting them to strict liability in the true sense of the term. On the other hand, it relaxes the liability of manufacturers of all other systems to liability for wrongdoing (fault). Conflict with the Product Liability Directive is thus unavoidable. The Parliamentary Draft addresses it in a hidden place, namely in Art. 11, a provision entitled "Joint and

[33] For details *cf.* GERHARD WAGNER, Robot Liability, in LIABILITY FOR ARTIFICIAL INTELLIGENCE AND THE INTERNET OF THINGS, 27 (Sebastian Lohsse, Reiner Schulze & Dirk Staudenmayer eds., 2019).

Several Liability". While Art. 11 of the Draft Regulation indeed states, in the first sentence, that several operators of a digital autonomous system are jointly and severally liable, the other provisions of Art. 11 deal with the relationship to the Product Liability Directive. According to Art. 11, second sentence, the Draft Regulation is to take precedence over the Product Liability Directive, but only insofar as the liability of the frontend operator is at issue. This rule is confusing as conflicts between the Product Liability Directive and the Draft Regulation cannot arise in this context, simply because frontend operators never qualify as manufacturers. That is, frontend operators as such, i.e. those actors that do not also qualify as backend operators, cannot come within the class of producers as defined in Art. 3 (1) Product Liability Directive.

The Commission's expert group cites the example of a company operating a fleet of self-driving vehicles and offering mobility as a service.[34] In this scenario, the fleet operator acts both as a frontend and as a backend operator, and in the latter capacity there is an overlap between the Product Liability Directive and the Draft Regulation. It remains unclear how it could be otherwise, i.e. how a "pure" frontend operator could qualify as producer. One would have to think of a scenario in which the manufacturer ceases to exercise any control over the product once it is placed on the market, in order to avoid classification as backend operator, but nevertheless retains a substantial degree of control over the system, as is required in order to qualify as frontend operator. This appears to be a contradiction in terms.

In conclusion, the interference of the Draft Regulation with the Product Liability Directive exclusively concerns backend operators, because only these may also qualify as producers under Art. 3 (1) of the Directive. In this respect, i.e. with regard to backend operators, the third sentence of Art. 11 Draft Regulation cedes priority to the Product Liability Directive, albeit under the condition that the backend operator qualifies as manufacturer under Art. 3(1) Directive 85/374/EEC.

Finally, the fourth sentence of Art. 11 of the Draft Regulation provides for a counter-exception to the prerogative of the Product Liability Directive in the event that the manufacturer qualifies as both backend and frontend operator at the same time. An example from the report of the expert group would be the aforementioned scenario where a car manufacturer does not sell (all of) its vehicles, but itself operates a fleet that offers mobility as a service to customers.[35] In this example, the

[34] EUROPEAN COMMISSION, *supra* note 11, at 41.
[35] EUROPEAN COMMISSION, *supra* note 11, at 41.

manufacturer would be subject to strict liability under Art. 4 Draft Regulation, provided that self-driving cars qualify as high-risk systems. Insofar as the manufacturer wore the frontend operator hat, strict liability under the Draft Regulation would trump liability for defective products under the Product Liability Directive. However, the solution offered by Art. 11 (cl. 4) Draft Regulation seems likely to prove highly problematic in application, because no car manufacturer can be expected to operate a fleet of rental cars itself, in the sense that the mobility services will be offered by the same corporate entity that produces the vehicles. Rather, car rental will always be outsourced to a subsidiary, and the rental company will then qualify as frontend operator, shielding the automaker (Original Equipment Manufacturer, OEM) from liability. The question then is whether the Product Liability Directive or the Draft Regulation on digital autonomous systems shall apply. Arguably, both liability regimes should govern, i.e. the Product Liability Directive the liability of the manufacturer and the Draft Regulation the liability of the car rental subsidiary.

The case involving two separate corporate entities, one that manufactures the vehicles and another that offers transportation services, is a very simple one. The business world has already developed further. Large car sharing companies are often organized as joint ventures between two or more car manufacturers or between a car manufacturer and a car rental company.[36] How should those cases be dealt with? Does a car manufacturer that is co-owner of a car-sharing company qualify as frontend operator? – The Draft Regulation does not offer an answer.

F. Evaluation

In summary, the partial inclusion of product manufacturers in the scope of the Draft Regulation on liability for autonomous systems creates considerable tensions and frictions with the Product Liability Directive. Moreover, the Draft Regulation fails to offer a satisfactory resolution of these conflicts. In substance, the tensions are not so much about the proper coordination of two legal instruments, but rather concern basic normative questions, such as choosing the right target of liability, together with the appropriate liability regime. If it is true that with the emergence of digital autonomous systems control shifts towards the manufacturer, because he

[36] For the connection of Daimler and BMW in Share Now https://www.faz.net/aktuell/wirtschaft/carsharing-co-mobilitaetsdienste-machen-muehe-16981428.html; for the connection of Volkswagen and Sixt in WeShare https://www.faz.net/aktuell/wirtschaft/carsharing-co-mobilitaetsdienste-machen-muehe-16981428.html.

determines the behavior of the system in the field, then the liability system must follow and zoom in on this party.[37] Hence there is a need for channeling liability towards the manufacturer, rather than diluting it by bringing in another liability subject. Following this premise, it is the wrong approach if the Draft Regulation focuses on the operators of digital autonomous systems. The framers of the Draft Regulation even confirm this view when targeting the producer of digital autonomous systems under the new concept of backend operator and then, at the same time, ceding priority to the Product Liability Directive. The way leading out of this contradiction is obvious: if a tightening of producer liability with regard to digital autonomous systems is necessary, then it must be done by reforming the Product Liability Directive – and not by placing a second instrument alongside the Product Liability Directive, which then shall take a back seat to the Directive when applied to real cases.

V. The Choice between Strict Liability and Liability for Fault

A. The Distinction of the European Parliament

The second core feature of the liability regime proposed by the Parliament, besides the distinction between frontend and backend operators, is the differentiation between high-risk systems and all other systems which do not create high risks for the interests of others. Operators of high-risk systems are subjected to strict liability (Art. 4 Draft Regulation), while the operators of "ordinary" systems remain responsible for fault only (Art. 8 Draft Regulation). The conditions and consequences of strict liability for the operation of high-risk systems are specified in the Draft Regulation itself (Art. 5 *et seq*. Draft Regulation), while the elements and limitations of liability for ordinary digital autonomous systems, together with the rules on quantum (damages) are left to the national law (Art. 9 Draft Regulation).

B. Strict Liability for Systems with High Risk

Strict liability as per Art. 4 of the Draft Regulation is reflective of the tradition of strict liability in Germany, which is traditionally risk-

[37] GERHARD WAGNER, Robot Liability, in LIABILITY FOR ARTIFICIAL INTELLIGENCE AND THE INTERNET OF THINGS, 27, 37–39 (Sebastian Lohsse, Reiner Schulze & Dirk Staudenmayer eds., 2019); IDEM, supra note 22, at 709 seq., 761 et seq.; IDEM, *supra* note 1, at 724 seq.; ZECH, *supra* note 1, at A 88 seq.

based.[38] Liability attaches to the materialization of risk stemming from a source of danger, primarily of a technical nature. The underlying principle is that strict liability compensates for the inability of the keeper to operate the system in a perfectly safe way, i.e. one that more or less excludes the infliction of harm on others. If technical risks of harm cannot be controlled perfectly, while their distribution across society remains unequal, then the imposition of strict liability achieves equality at the compensation level: anyone who operates a technical system that poses high risks to the legal interests of others must compensate the harm caused by the operation of such system.[39]

From an economic point of view, strict liability is justified because it generates incentives to operate the system with the necessary safety measures, i.e. to take precautionary measures whose costs are lower than the damage they thereby avoid.[40] Furthermore, strict liability – unlike fault-based liability – also controls the level of activity, i.e. the amount in which people engage in activities that, even if conducted with due care, cause significant harm to others. The operator of a high-risk system, who is held responsible for the full cost of harm caused in the course of its operation, will weigh the total costs of its operation against the benefits to be generated in the process. As a result, the system will only be used if the benefit to be gained is greater than the operating cost plus the (expected) cost of harm. It is precisely this decision that also maximizes the common good, which is understood as the welfare of all members of society.

All other digital autonomous systems that do not create high risks are subjected to fault liability pursuant to Art. 8 of the Draft Regulation. "High risk" thus becomes the key concept of the parliamentary proposal, which directs the choice between strict and fault-based liability. So, when must a risk be classified as "high"? Under the definition provided in Art. 3 (c) of the Draft Regulation, high risk is defined with reference to reasonable expectations. In assessing this clause, a number of factors must be considered, namely the severity of the possible harm, the question of the extent to which decision-making is autonomous, the probability of the harm occurring, and the way in which the system is used.

From this group of different factors, I submit that only two are truly relevant to whether a risk is to be classified as "high", namely the probability of the occurrence of harm and the severity of it. In short, the

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[38] WAGNER, *supra* note 25, at ch. 8 para 1 et seq.

[39] *Cf.* also Mark A. Geistfeld, *Hidden in plain sight: The normative source of modern tort law*, 91 N.Y.U. L. REV. 1517, 1551 (2016).

[40] On this and the following STEVEN SHAVELL, FOUNDATIONS OF ECONOMIC ANALYSIS OF LAW 193 et seq. (2004); WAGNER, *supra* note 25, at ch. 4 para 4 et seq.

expected value of the harm (amount times probability) must be exceptional. Whether the decision-making process of the device was autonomous or not, is completely irrelevant, as this factor has no bearing on the "level" of risk. The way the system is used is also irrelevant, or at least relevant only insofar as reflected in the criteria already emphasized – severity of harm and probability of its occurrence. In accordance with the doctrine of strict liability, the criteria of Art. 3 (c) can be condensed into the following formula: A digital autonomous system causes high risks if a significant risk of harm arises in the course of its operation, one that cannot be excluded by cost-effective precautionary measures.

C. Fault-Based Liability for Systems Causing Ordinary Risks

The definition of systems involving "ordinary" risk is missing from Art. 3 Draft Regulation, and in fact, such explanation follows from the definition of high-risk systems offered by Art. 3 (c) as its flipside. The risks caused by the operation of a digital system are to be classified as ordinary, i.e. "not high", if they can be mitigated by appropriate safety measures, to a degree where no significant risk to bodily integrity or personal property remains. If the operation of a technical system causes (only) ordinary risks, the principle of mutuality applies, i.e. it can be assumed that the risk of harm that each person poses to his or her neighbor are matched by the equal risk that this neighbor causes to the former, assuming that due care is observed. Under these conditions, where the risk of harm can more or less be eliminated by taking due care, control of the activity level of the tortfeasor is unnecessary. Thus, liability for fault, i.e. for breach of the standard of due care, is the correct principle. The reference to fault-based liability in Art. 8 of the Draft Regulation must be understood in this sense: The liability trigger is not fault in the technical sense of personal guilt, but the violation of an objectively defined duty of care, which turns on the costs and benefits of precautions to control risk and avoid harm. This interpretation corresponds to the concept of objective negligence that dominates in the European tort law systems.[41]

Insofar as Art. 8 of the Draft Regulation subjects operators of digital autonomous systems to fault-based liability under national law, it appears to be superfluous. In principle, there is no need to impose fault-based liability for personal injury and damage to property, because corresponding

[41] CHRISTIAN VON BAR, THE COMMON EUROPEAN LAW OF TORTS VOL. II, para 224 et seq. (2000); GERHARD WAGNER, Comparative Tort Law, in THE OXFORD HANDBOOK OF COMPARATIVE LAW 994, 1013 et seq. (Mathias Reimann & Reinhard Zimmermann eds., 2nd ed. 2019); CEES VAN DAM, EUROPEAN TORT LAW 230 et seq. (2nd ed., 2013).

liability provisions can be found in every European legal system.[42] Fault-based liability is at once the default-regime and the backbone of common European tort law, and it remains completely unchallenged in cases involving personal injury and damage to property. By repeating what is already the "law of the land", Art. 8 of the Draft Regulation foregoes any harmonizing effect at all. This is all the more true because the Draft Regulation does not contain any provisions on the elements and consequences of fault-based liability, and so fails to take advantage of the opportunity for legal harmonization that still exists in this important area of the law.[43]

The substantive question raised by Art. 8 of the Draft Regulation is the appropriateness of a liability standard for digital autonomous systems that is linked to misconduct. If the central feature of these systems is that they make decisions on safety themselves and thus create risks for others over and beyond the risks created by the respective user of the system (risk of autonomy), then a regulation that relies primarily on the fault of the operator of that system for liability is clearly inadequate.[44] It is the very challenge posed by autonomous systems that the operator is unable to control the behavior of the system. It is the manufacturer who pulls the strings and thus should bear the external costs associated with his safety-related choices. If, contrary to this proposition, liability shall be targeted at the user, then what is truly needed is not another affirmation of the fault principle but rather a *rule of attribution* that holds the operator responsible for the system's misconduct, much like the principle of vicarious liability does with a view to principals and the torts committed by their employees or agents. Thus, the real challenge is some form digital vicarious liability.[45] Such a rule is not included in the Draft Regulation.

To make matters worse, Art. 8 of the Draft Regulation and its interaction with Art. 4 of the Draft Regulation suggests that the Member States are stripped of the option to subject the operators of digital autonomous systems involving ordinary risk to a liability regime that is stricter than the one envisioned in Art. 8. Carried to the end, the Draft Regulation would block the operation of systems of operators' strict liability such as the French notion of *responsabilité de fait des choses*. Moreover, even digital vicarious liability, which would attribute the system's own

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[42] VON BAR, *supra* note 41, at para 179 ff; WAGNER, *supra* note 41, at 999 et seq.; VAN DAM, *supra* note 41, at 225 et seq.

[43] *Cf. infra* Part VI.

[44] TEUBNER, *supra* note 1, at 191 et seq.; WAGNER, *supra* note 1, at 735 seq.

[45] In detail TEUBNER, *supra* note 1, at 163 et seq., 189 et seq.; Wagner, *supra* note 1, at 720, 724 seq.

malfunctions to the "innocent" operator might be considered to be in violation of EU law, should the Draft Regulation be enacted. Such blocking effects of the Regulation vis-à-vis national law must be avoided. As described in Art. 3(b) Draft Regulation, the hallmark of a digital autonomous system is its ability to make its "own" decisions and to determine its "own" behavior. If this is true, it is fundamentally wrong to base liability for the "behavior" of such system on fault in the person of the operator – and to prevent the legal systems of the Member States from correcting this error. [46]

D. A General Clause of Strict Liability vs. an Incremental Approach

1. An Enumeration Principle without Enumeration

The division of the law of non-contractual liability into strict liability and fault-based liability is an integral part of the common European law of torts. The linking of strict liability to the exceptional, in the sense of higher-than-average, magnitude of the risk caused by the respective digital system to the legal interests of others, corresponds to the traditions of German as well as common law systems, but less so to that of French law, where mere possession of a thing suffices for strict liability to attach.[47] The expert group of the EU Commission followed the risk-based approach and specifically advocated for the strict liability of operators of systems that are used in public and are capable of causing significant damage.[48]

From a comparative perspective, the eternal question of strict liability is that of a general clause that captures the operation of, or control over, sources of exceptional risk. In Germany, as well as in several other jurisdictions, it is not considered reasonable to simply link liability to activities that cause exceptional danger, and to leave it to the courts to designate the technical appliances and other sources the operation of which qualify for this.[49] Rather, the decision on the scope of strict liability is

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[46] *See infra* Part VIII. 0.

[47] *Cf.* VON BAR, *supra* note 41, at para 315 ff; TERRÉ, SIMLER, LEQUETTE & CHÉNEDÉ, *supra* note 25, at para 989, 991; GERHARD WAGNER, Grundstrukturen des Europäischen Deliktsrechts, in GRUNDSTRUKTUREN DES EUROPÄISCHEN DELIKTSRECHTS 189, 274 et seq. (Reinhard Zimmermann ed., 2003).

[48] EUROPEAN COMMISSION, *supra* note 11, at 39 seq.

[49] On German law Bundesgerichtshof [BGH] [Federal Court of Justice] Jan. 25, 1971, III ZR 208/68, BGHZ 55, 229 (233 et seq.) = 23 NEUE JURISTISCHE WOCHENSCHRIFT 607 (1971); WAGNER, *supra* note 25, at ch. 8 para 19 et seq.; on English law *Cambridge Water Co. V. Eastern Counties Leather Plc* [1994] 2 A.C. 264 (305 et seq.) (HL (E), 1993);

reserved for the legislator; in this sense, the principle of enumeration applies. The core argument in favor of this regulatory technique is that it ensures predictability and legal certainty. Citizens as well as businesses should know *ex ante* whether they are subject to strict liability or not. In addition, the legislators gain considerable leeway in the creation of bespoke regimes of liability for each category of abnormally dangerous activity, by shaping the scope and limits of each head of strict liability.

Both arguments obviously also impressed the drafters of the Draft Regulation, in that they opted for the enumeration principle, and against a general clause. Pursuant to Art. 4 (2) of the Draft Regulation, those high-risk systems that are subject to strict liability are to be listed in an Annex to the Regulation. The Commission shall be empowered to extend this list by adding new types of systems or to delete existing entries by way of delegated legal acts in accordance with Art. 13 of the Draft Regulation. Interestingly, the Draft Regulation also envisages intermediary solutions, such as certain systems only being subject to strict liability when used in certain sectors. However, the courts shall not be authorized to hold operators of supposedly high-risk systems strictly liable under Article 4 of the Draft Regulation where these systems are not listed in the Annex to the Regulation.[50]

In the text adopted by the European Parliament, the Draft Regulation remains silent on which systems should be subject to strict liability. The annex to the Draft Regulation is completely empty.[51] A draft of the report of the Parliament's Legal Affairs Committee by *Axel Voss* dating from April 2020, which preceded the parliamentary decision, did contain a list of high-risk systems, that may illustrate possible applications of Art. 4 of the Draft Regulation.[52] The Annex of the draft report included unmanned aerial vehicles as defined in Article 3(30) of Regulation (EU) 2018/1139; Level 4 and 5 autonomous vehicles according to SAE J3016, autonomous traffic management systems, autonomous robots and autonomous cleaning devices for public areas. This list was deleted in the

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MICHAEL A. JONES, Principles of Liability in Tort, in CLERK & LINDSELL ON TORTS paras 1-69 et seq. (Michael A. Jones ed., 23rd ed. 2020); RICHARD A. BUCKLEY, Nuisance and Rylands v Fletcher, in CLERK & LINDSELL ON TORTS paras 19-44 et seq. (Michael A. Jones ed., 23rd ed. 2020).

50 EUROPEAN PARLIAMENT, P9_TA-PROV(2020)0276, 17, para 14.

51 EUROPEAN PARLIAMENT, P9_TA-PROV(2020)0276, 31.

52 EUROPEAN PARLIAMENT, Committee on Legal Affairs, Draft Report with Recommendations to the Commission on Civil Liability in the Use of Artificial Intelligence (2020/2014(INL)), 27.4.2020, 24, https://www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/JURI/PR/2020/05-12/1203790DE.pdf.

final version of the report of the Legal Affairs Committee of October 2020, and for good reason.[53]

2. Autonomous Robots and Cleaning Devices

A list of systems that are subject to strict liability according to Art. 4 *et seq*. Draft Regulation only makes sense if it provides the potential addressees of liability with the desired legal certainty, such that they can foresee whether they are subject to strict liability regarding certain activities or not. With a view to the entry "autonomous robots" these requirements of legal certainty and foreseeability are missed. There is nothing to be gained in terms of legal certainty if the concept of "autonomous robot" is substituted for the concept of "high-risk AI-system" as used in Art. 4 (1) of the Draft Regulation for the purpose of defining the scope of strict liability. The same doubts which a direct application of the general clause of Art. 4 (1) of the Draft Regulation to "autonomous robots" would have caused would also have affected the interpretation of the term "autonomous robot" itself.

This objection does not apply to the same extent to the entry "autonomous public places cleaning devices". Here, however, the question arises whether the requirements set by Art. 4 (1) Draft Regulation with a view to high-risk AI-systems are met at all. As explained above, high-risk systems are those that are likely to cause a significant amount of harm that cannot be avoided by taking reasonable precautions. Is this the case with respect to "autonomous cleaning devices"? Has a person ever been seriously injured by an automated sweeper of the municipal cleaning service? Are these machines really particularly dangerous? And are they being used on a significant scale?

3. Road Traffic Accidents

Self-driving cars at automation levels 4 and 5 do not yet exist, but level 4 may be within reach in the foreseeable future. In this respect, it seems doubtful whether a special liability regime under European Union law for traffic accidents, which would apply solely to self-driving cars, but not to conventional motor vehicles, is desirable.

The settlement of traffic accidents makes up a large part of tort practice in the various Member States. A multitude of professionals navigate this field, ranging from courts and practicing attorneys to traffic experts, damages experts, repair shops, car rental companies and salvage

[53] EUROPEAN PARLIAMENT, P9_TA-PROV(2020)0276, 31.

companies. This system is financed and, to a certain extent, also organized by the motor vehicle liability insurers, whose involvement is mandatory in Europe. The interaction of national liability and insurance law with a set of EU directives regulating basic elements of the claims process and of compensation in cross-border traffic accidents,[54] has helped to create a well-oiled compensation machine, which ensures that the administrative costs of settling claims and compensating victims are kept under control.

However, the road accident compensation systems remain institutions of the several Member States, and this fragmentation has been lamented for years.[55] In fact, the differences between national liability systems sometimes lead to curious outcomes in cases of cross-border traffic accidents, i.e. accidents involving a driver from one country and a victim from another. Sometimes the discrepancies between the national systems of accident law are difficult to accept, particularly with a view to the assessment of damages for non-pecuniary harm, and with regard to limitation periods.[56] During the preparation of the Rome II Regulation, efforts to improve victim protection in this area, for instance by invoking the legal system of the injured party's place of habitual residence in the

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[54] Most recently Directive 2009/103/EC of 16 September 2009 relating to insurance against civil liability in respect of the use of motor vehicles, and to the enforcement of the obligation to insure against such liability, OJ L 263, 11 et seq.

[55] PAUL TORREMANS, CESHIRE NORTH & FAWCETT ON PRIVATE INTERNATIONAL LAW 819 (15th ed., 2015); *cf. also* EUROPEAN PARLIAMENT, Report on the Proposal for a Regulation of the European Parliament and of the Council on the Law Applicable to Non-Contractual Obligations, A6-0211/2005 Final (so called "Wallis Report"), Art. 6b, at 23; EUROPEAN PARLIAMENT, Legislative Resolution on the proposal for a regulation of the European Parliament and of the Council on the law applicable to non-contractual obligations ("Rome II"), P6_TA(2005)0284, Art. 7; AXEL HALFMEIER, in ROME REGULATIONS (Gralf-Peter Callies ed., 2015), Art. 1 Rome II Regulation Art. 1 para 4 f.; VON HEIN, in ibid., Art. 1 Rome II Regulation Art. 28 para 10 et seq.; *in-depth* Thomas Kadner Graziano & Christoph Oertel, *Ein europäisches Haftungsrecht für Schäden im Straßenverkehr? – Eckpunkte de lege lata und Überlegungen de lege ferenda*, 107 Zeitschrift für vergleichende Rechtswissenschaft 113 et seq. (2008).

[56] Cf. ECJ, 31.1.2019, C-149/18 – Agostinho da Silva Martins v. Dekra Claims Services Portugal SA; on this OLIVER REMIEN, Europäische Straßenverkehrsunfälle zwischen klassischem IPR, Eingriffsnorm nach Art. 16 Rom II-Verordnung und Rechtsangleichung – Gedanken zu EuGH 31.1.2019 – Rs. C-149/18, da Silva Martins ./. DEKRA Claims Services Portugal SA, in FESTSCHRIFT FÜR CHRISTIAN HUBER 455 et seq. (Karl-Heinz Danzl, Barbara Dauner-Lieb & Alexander Wittwer eds., 2020); Thomas Kadner-Graziano, *Kurze Verjährungsfristen in grenzüberschreitenden Haftungsfällen: noch keine Rettung in Sicht (de lege lata) und fünf Lösungsoptionen (de lege ferenda)*, ZEITSCHRIFT FÜR EUROPÄISCHES PRIVATRECHT 670 (2021).

assessment of personal injuries, failed.[57] Now, the European Parliament is gearing up for another attack on the Bastille, as Art. 6 Draft Regulation proposes uniform rules on the calculation of damages for personal injuries, together with provisions on limitation periods in Art. 7.

The harmonization of motor accident law in Europe is not a straightforward proposition, as overall welfare differs between Member States, and the expectations of the people regarding the compensation of non-pecuniary losses diverge as well. Whatever one may ultimately think about the virtues of harmonization in cross-border traffic accidents, one thing is certain: It would be the wrong approach to leave the compensation systems already established in the several Member States in place and just add a second system alongside the existing national traffic accident systems, based on Union law, which would only apply to motor vehicles with an automation level of 4 or 5. The introduction of special conflict of laws rules for cross-border traffic accidents is something which can be argued about, and the demands for harmonization of the substantive liability and compensation systems – whether generally or for traffic accidents only – also have merit. What is clearly not justifiable is the splitting of the already complex compensation systems for traffic accidents into two parts, where one part is for conventional and another for self-driving cars, and to then differentiate between the two systems when it comes to the computation of damages for personal injury.[58]

4. Unmanned aircraft

The same conclusion must be drawn with regard to the liability of drone owners, i.e. unmanned aircraft within the meaning of Article 3(30) of Regulation (EU) 2018/1139. Under German law, the owners of aircraft are subject to strict liability pursuant to Section 33(1) LuftVG (Luftverkehrsgesetz – Air Traffic Act) for third-party harm suffered by

[57] EUROPEAN PARLIAMENT, Report on the Proposal for a Regulation of the European Parliament and of the Council on the Law Applicable to Non-Contractual Obligations, A6-0211/2005 Final, Art. 6b (2), 23: "In the case of personal injuries arising out of traffic accidents the court seized should apply the rules relating to the quantum of damages of the individual victim's place of habitual residence, unless it would be inequitable to do so"; Gerhard Wagner, *Internationales Deliktsrecht, die Arbeiten an der Rom-II-Verordnung und der Europäische Deliktsgerichtsstand*, PRAXIS DES INTERNATIONALEN PRIVAT- UND VERFAHRENSRECHTS 372, 379 (2006).

[58] Gerhard Wagner, *The Project of Harmonizing European Tort Law*, 42 C.M.L. REV. 1269 (2005).

persons other than crew, passengers and loading personnel.[59] This rule also applies to unmanned aircraft[60] and certainly also to unmanned aircraft that are self-flying.[61] Accordingly, from a German law perspective, there is no need for new liability rules. A special European liability law for drones would also come into conflict with the Rome Convention. The Rome Convention on Third Party Liability in International Air Traffic of 1952 regulates liability for damage on the ground caused by an aircraft, and so covers neither damage to air cargo nor passengers.[62] From the circle of EU Member States, contracting states to this Convention include Luxembourg, Belgium, Spain and Italy. The difficulties arising for these Member States under international law would have to be solved within the framework of Article 351 TFEU, assuming that the original Treaty of Rome did not vest the EEC with a general competence for air transport.[63] Be that as it may, there are good reasons for standardizing third-party liability in aviation law throughout Europe and regulating it under EU law. However, this goal cannot be achieved with the Draft Regulation, which provides a special liability regime for autonomous drones only – but not for unmanned aerial vehicles equipped with traditional technology. This proposal would drive a wedge into the already complicated legal regime for unmanned aircraft and would transform the definition for AI-systems of Art. 3(b) Draft Regulation into a threshold for the applicability of harmonized liability rules. Moreover, the situation in cases involving harm caused by the operation of a drone is unwieldy enough already, such that the injured party should not

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[59] BOLLWEG, in KÖLNER KOMPENDIUM DES LUFTRECHTS Vol. 3, p. 236 et seq. (Stefan Hobe/Nicolai v. Ruckteschell eds., 2010). Civil Aviation Act 1982.

[60] On liability for damage caused by drones Philipp Holle & Sebastian Bredebach, *Rechtlicher Rahmen für den privaten Betrieb von Drohnen nach der deutschen „Drohnen-Verordnung" vom 30.3.*2017, NEUE ZEITSCHRIFT FÜR VERKEHRSRECHT 132, 134 (2020); Christoph Schäfer, *Drittschäden durch Drohnen*, ZEITSCHRIFT FÜR VERSICHERUNGSRECHT, HAFTUNGS- UND SCHADENSRECHT (VERSR) 849, 852 et seq. (2017).

[61] Christoph Schäfer *ibid.*

[62] The text of the Convention can be found at https://treaties.un.org/doc/Publication/UNTS/Volume%20310/volume-310-I-4493-English.pdf; a list of the Contracting States can be found at https://www.icao.int/secretariat/legal/List%20of%20Parties/Rome1952_EN.pdf. Hans-Georg Bollweg & Kristina Moll, *Die Drittschadenshaftung im internationalen Luftverkehr nach der Revision des Romer Haftungsabkommens*, 58 ZEITSCHRIFT FÜR LUFT- UND WELTRAUMRECHT 587 et seq. (2009); ABBO JUNKER, Art. 4 Rome II Regulation para 108, in MÜNCHENER KOMMENTAR ZUM BGB (Jürgen Säcker et al. eds., 8th ed. 2021).

[63] *Cf.* Art. 84 (2) EEC Treaty; today Art. 100 (2) TFEU.

be burdened with the all but trivial task of having to determine the technical level of the device that hit him or her, before filing suit.

5. Conclusion

There are good reasons which speak in favor of the enumeration principle in the law of strict liability. Nevertheless, it is quite obviously difficult to fill the Annex to the Draft Regulation with convincing proposals for concrete cases where strict liability is adequate. This is in no way due to incompetence or lack of imagination on the part of the drafters, but is rather rooted in the nature of the problem. It is difficult to single out particular categories of cases involving digital autonomous systems where the strict liability of the respective *operator* seems adequate. This is so because the particular risk of harm associated with the operation of certain technical systems is independent of whether the system is controlled in the conventional manner or whether it is controlled by AI. There is no categorical difference in the risks posed by an electronic lawnmower, for example, depending on whether it is a conventional or an autonomous system. Your toes are in danger, whether you operate the device yourself or whether digital technology does it for you. The same considerations are relevant with respect to cars, drones, and cleaning devices. This confirms the thesis that digital autonomous systems may prompt tightening the liability regime applicable to producers – but not that applying to operators.

VI. Compensation and Damages

A. Reference to National Law in Case of Fault-Based Liability

The distinction between strict liability for high-risk systems and fault liability for all other systems is carried forward into the law of damages. With regard to fault-based liability, the Draft Regulation refrains from setting any standards, but instead refers to the law of the Member State in which the personal injury or damage to property occurred (Art. 9 Draft Regulation). In contrast, the amount of compensation in the case of strict liability for systems with high risks is set out in detail in Art. 5 of the Draft Regulation. Both suggestions are problematic.

The reference to the national law on damages in Art. 9 of the Draft Regulation leads to a bifurcation of the law applicable to a particular accident. While the liability rule is of European origin, the amount of compensation and the computation of damages are to be determined under national law. This is not merely an aesthetic problem, but actually

undermines the harmonizing effect of Art. 8 of the Draft Regulation. Since fault-based liability for infringements of the basic legal interests of life, body, health, and property is accepted in liability systems across Europe, the potential for harmonization in this area lies primarily in the law of damages.[64] The Draft Regulation fails to harness this potential. Moreover, the designation of the law of damages of the Member State "in which the harm or damage occurred" (Art. 9 Draft Regulation) leads to unnecessary friction with the Rome II Regulation, which, according to its Art. 15(a), governs not only the basis but also the extent of liability. Although Art. 9 of the Draft Regulation can be interpreted in the sense of the place-of-damage principle enshrined in Art. 4 (1) Rome II Regulation, the escape clauses included in Art. 4 (2) Rome II Regulation in the case of common habitual residence of the tortfeasor and the injured party, and by Art. 4 (3) Rome II Regulation in the case of an obviously closer connection to another Member State cannot be integrated into the Draft Regulation.[65] This is all the more true with a view to the special conflicts rules supplied for special categories of liability in Arts. 5–9 Rome II Regulation.

B. Uniform Regulation of Damages in Cases of Strict Liability

The scope of compensation for cases of strict liability under Art. 4 of the Draft Regulation is defined independently, i.e. without reference to national law, in Art. 5 Draft Regulation. The rules on compensation for personal injury and damage to property caused by high-risk systems are meant to be conclusive and do not allow for a supplementary application of the national law of damages. The question then remains whether the proposals are up to the task of derogating the national systems.

1. Caps on Damages

The provisions of Art. 5 Draft Regulation on the amount of compensation are misguided as the caps on damages that are stipulated are far too low. This conclusion is unavoidable when comparing Art. 5 Draft Regulation to the existing national law, e.g. German law. Under § 12 (1) no. 1 StVG (*Straßenverkehrsgesetz* – Road Traffic Act) liability is limited to an amount of five million Euros in the case of injury to one or more persons caused by the same event, and this limit is even increased to ten million Euros for accidents caused during the operation of highly or fully-automated driving functions. In contrast, under Art. 5 (1) (a) Draft

[64] *Cf. supra* Part V. C.

[65] VON HEIN, *supra* note 55, Art. 1 Rome II Regulation Art. 4 para 26 et seq.

Regulation, which would only apply to self-driving cars anyway, only two million Euros shall be made available. This is far too little, especially in the case of accidents in which several people are seriously injured and in which the then meagre sum of 2 million Euros is to be divided amongst the injured parties (Art. 5 (2) Draft Regulation).

Art. 5 (1) (b) of the Draft Regulation stipulates a further cap of one million Euros, which is to apply to damage to property, while § 12 (1) (2) of the StVG provides double this amount for accidents involving automated driving functions. What is more serious, however, is that the maximum for damage to property shall also apply to certain personal injuries, namely to "significant immaterial harm that results in a verifiable economic loss". However, immaterial harm cannot lead to economic loss, because if it did, it would then constitute pecuniary damage. The wording of the Draft Regulation is contradictory. After all, it makes little sense to standardize two different caps on liability for material and immaterial harm or damage in Art. 5 (1) (a) and (b) with regard to personal injury. The provision of Art. 5 (1) of the Draft Regulation cannot enter into force as is, and if anything, must be subjected to a comprehensive revision. The European lawmaker should refrain from prescribing uniform caps on liability and follow the example of Art. 9 of the Directive 2009/103, which provides for minimal harmonization of the minimum levels of insurance cover for motor vehicles only, allowing Member States to go further and require higher covers in the interest of victims (Art. 28 of the Directive).[66]

2. Scope of Compensation for Personal Injury

Art. 6 (1) Draft Regulation provides basic rules for damages in cases of bodily injury resulting in death and Art. 6 (2) of the Draft Regulation regulates compensation in cases of other bodily injuries and injuries to health. In cases of the former, the operator owes compensation for the costs of medical treatment incurred before the victim's death and for loss of earnings suffered during this period. In addition, he has to reimburse the funeral costs and finally compensate those relatives to whom the deceased person was legally obliged to provide maintenance, for their loss of maintenance.

Again, Article 6 (1) of the Draft Regulation proves to be extremely restrictive, for example with regard to bereavement damages. Contrary to

[66] Directive 2009/103/EC relating to insurance against civil liability in respect of the use of motor vehicles, and to the enforcement of the obligation to insure against such liability, OJ L 263, 11 et seq. On the liability insurance obligation for autonomous systems *infra* Part VII.

the state of the law in many Member States[67] and the recent reforms in Germany and Netherlands,[68] where damages for the loss of a beloved person were finally introduced by the legislatures, bereavement damages are missing from the Draft Regulation. This is all the more astonishing as the purpose of the compensation for pain and suffering of relatives was to catch up with the other European legal systems. The status achieved by the Members States in the process of voluntary legal harmonization would thus be reversed by legislation of the European Union. There is no convincing reason for this. In particular, the differentiation between strict liability and fault liability offers no justification for limiting the scope of damages for personal injury in strict liability to pecuniary losses.

The policy laid down in Art. 6 (1) of the Draft Regulation is extended in Art. 6 (2) Draft Regulation, because damages in case of physical injuries and injuries to health remain limited to pecuniary losses. The injured party is entitled to compensation for medical expenses and loss of earnings suffered as a result of the injury, as well as the costs stemming from increased needs. There is no entitlement to compensation for pain and suffering, and other non-pecuniary harm. With its strict rejection of compensation for non-pecuniary loss, the Parliamentary Draft clearly falls behind the state of the common European law of torts and damages.[69]

3. Property Damage

There are no provisions at all on compensation for damage to property, although it is clear from Article 4 (1) Draft Regulation that damage to property is within the scope of protection afforded by the provision. Furthermore, Article 5 (1) (b) Draft Regulation talks about damage caused to property in order to set a maximum limit of

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[67] W. V. HORTON ROGERS, Comparative Report on a Project Carried Out By the European Centre for Tort and Insurance Law, in DAMAGES FOR NON-PECUNIARY LOSS IN A COMPARATIVE PERSPECTIVE 262 et seq., para 34 et seq. (W. V. Horton Rogers ed., 2001); BASIL MARKESINIS, MICHAEL COESTER, GUIDO ALPA & AUGUSTUS ULLSTEIN, COMPENSATION FOR PERSONAL INJURY IN ENGLISH, GERMAN AND ITALIAN LAW 222 (2005).

[68] BASIL MARKESINIS, JOHN BELL & ANDRÉ JANSSEN, MARKESINIS'S GERMAN LAW OF TORTS 200 (2019); Gerhard Wagner, *Schadensersatz in Todesfällen – Das neue Hinterbliebenengeld*, 69 NEUE JURISTISCHE WOCHENSCHRIFT 2641 (2017).

[69] ROGERS, *supra* note 67, at 245 et seq., para 3 et seq.; BERNHARD KOCH & HELMUT KOZIOL, Comparative Analysis, in COMPENSATION FOR PERSONAL INJURY IN A COMPARATIVE PERSPECTIVE 424 seq., para 53 (Bernhard Koch & Helmut Koziol eds., 2003); MARKESINIS, COESTER, ALPA & ULLSTEIN, *supra* note 67, at 45 et seq.; VON BAR, *supra* note 41, at para 16.

compensation. Obviously, the drafters of the Parliament believed that assessment of damages for harm to property was so simple that special provisions are unnecessary. If this was their view, it must be disputed. In truth, the compensation of property damage raises a host of intricate issues, starting with the choice between compensation for the costs of repair and compensation for the cost of a replacement, ranging over to the assessment of the repair costs in detail, compensation for a reduction in value, allowances for old parts being replaced by new ones, etc.[70] Leaving all of these questions to the jurisdiction of the ECJ is frankly irresponsible, because the problems are so many, and the difficulties all too foreseeable.

C. Conclusion

Overall, the provisions on the assessment of damages in Art. 6 of the Draft Regulation seem incomplete, insufficiently thought through and characterized by the unwarranted concern that the injured party could receive too much and that this could hamper the innovation dynamic of European businesses. In the case of fault-based liability, the reference to national law is ill-advised both in principle as well as in its concrete form.

VII. Insurance Issues

The Draft Regulation does not stipulate an insurance obligation with a view to fault-based liability under Art. 8. Operators of digital autonomous systems that cause only ordinary risks are therefore free to either obtain liability insurance cover in the market, or to refrain from doing so. However, this differs for operators of high-risk systems, who are subject to an insurance obligation stemming from Article 4 (4) Draft Regulation. Both frontend and backend operators of digital autonomous systems are mandated to take out liability insurance to cover the liability risk resulting from Art. 4 (1) Draft Regulation within the scope of compensation provided for in Art. 6 Draft Regulation. This obligation is deemed to be fulfilled if the operator is already under another legal obligation to insure against the risk of liability under national or EU law, and has complied with this obligation.

The combination of strict liability and compulsory liability insurance is based on the model of road traffic accident liability. In this area, there is an obligation to take out liability insurance in all Member

[70] *See only* EDELMAN, MCGREGOR ON DAMAGES Ch. 37 (21st ed., 2021); GENEVIÈVE VINEY, PATRICE JOURDAIN & SUZANNE CARVAL, LES EFFETS DE LA RESPONSABILITÉ 234 et seq. (4th ed., 2017); WAGNER, *supra* note 25, at Ch. 10 para 7 et seq.

States, in accordance with Art. 3 of Directive 2009/103/EC[71] as well as on the basis of the European Convention on Compulsory Insurance against Civil Liability in respect of the Use of Motor Vehicles.[72] However, in the case of compulsory motor vehicle liability insurance, a relatively complex statutory framework known as the "Green Card System" ensures that foreigners enjoy the same insurance cover as nationals in the case that they become involved in a motor accident in that particular country.[73] There is no corresponding regulation outside the area of motor accidents. As the ECJ *Breast Implant Case* has shown, there is also no general EU-law principle of non-discrimination of injured parties that would prevent insurance companies from limiting liability insurance cover to damages that occurred in that particular country, to residents of that country.[74] If this practice were transposed to insurance for digital autonomous systems, it would undermine the very purpose of the Draft Regulation to harmonize the law. Furthermore, it would weaken the protection of injured parties and thus fail to achieve the objective of strengthening public confidence in the safety of new technologies. [75] The Draft Regulation therefore needs to be supplemented with provisions which guarantee the even-handed settlement of cross-border insurance claims with a view to accidents caused by digital autonomous systems.[76]

VIII. Degree of Harmonization

With a view to the Draft Regulation as a whole, the question arises as to the degree of harmonization it would bring. Since regulations are directly applicable in the Member States (Art. 288(2) TFEU), no transposition would be required. However, this does not settle the issue whether the law of the Member States could be applied in addition to the Regulation, supplementing its provisions or derogating them.

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[71] Directive 2009/103/EC relating to insurance against civil liability in respect of the use of motor vehicles, and to the enforcement of the obligation to insure against such liability, OJ L 263, 11 et seq.

[72] BGBl. 1965 II, 281.

[73] Art. 3 para 2 lit. a), Art. 20 et seq. of Directive 2009/103/EC, OJ L 263, 11, 21 et seq.

[74] ECJ, 11.6.2020, C-581/18, 72 NEUE JURISTISCHE WOCHENSCHRIFT 2169 para 28 et seq. (2020) – RB ./. TÜV Rheinland & Allianz.

[75] On this bundle of purposes, EUROPEAN PARLIAMENT, P9_TA-PROV(2020)0276, 3 at B., 9 at 23, 11 at 7, 14 para 1, 14 para 4.

[76] Jürgen Basedow, *Strikte Haftung und "nackte" Pflichtversicherung,* EUROPÄISCHE ZEITSCHRIFT FÜR WIRTSCHAFTSRECHT 1, 2 (2021).

A. Proviso for Product Liability

According to Art. 2 (3) of the Draft Regulation, the Regulation shall be without prejudice to "any additional liability claims resulting from contractual relationships, as well as from regulations on product liability, consumer protection, anti-discrimination, labor and environmental protection". It must be noted that this proviso is limited to the relationship between the operator and the injured party who has suffered personal injury or damage to property. If at all, the Draft Regulation is conclusive only with respect to the liability of operators as such, and does not touch upon the liability of other parties such as producers and other actors involved in the production of digital autonomous systems. But even where these parties do qualify as operators within the meaning of Art. 3 (d), (e) and (f) of the Draft Regulation, their responsibilities under the law of product liability, environmental liability, anti-discrimination and consumer protection remain unaffected. Moreover, the Draft is limited to non-contractual liability, so that contractual liability under national law continues to apply.

The scope of protection of the Draft Regulation is focused on personal injury and damage to property. Personal injury refers to injuries to the physical interests of the person, i.e. life, health, and bodily integrity, but not general, non-physical personality interests, such as the protection against defamation and of privacy. With regard to freedom of movement, the situation under the Draft Regulation remains unclear; the reference to personal injury speaks in favor of its inclusion, while Art. 6 of the Draft Regulation, which is limited to death and bodily injury suggests the opposite. Ecological harm and other environmental concerns are also left out of the equation, at least to the extent that environmental harm does not constitute property damage.[77]

B. Operator Liability

Insofar as the operators of digital autonomous systems cause personal injury or damage to property, an important distinction must be drawn: Strict liability under Art. 4 *et seq*. of the Draft Regulation is probably meant as a conclusive regime that excludes recourse to national

[77] VON BAR, *supra* note 41, at 288; MONIKA HINTEREGGER, Comparison, in ENVIRONMENTAL LIABILITY AND ECOLOGICAL DAMAGE IN EUROPEAN LAW 579, 620–623, 632–636 (Monika Hinteregger ed., 2008); GERHARD WAGNER, Environmental Liability, in THE MAX PLANCK ENCYCLOPEDIA OF EUROPEAN PRIVATE LAW VOL. 1, 525–527 (Jürgen Basedow, Klaus J. Hopt & Reinhard Zimmermann eds., 2012).

law. This is not quite certain, because Art. 4 (5) of the Draft Regulation states that this Regulation "shall prevail over national liability regimes in the event of conflicting strict liability classification of AI-systems". Whatever this sentence means, it in any case assumes that national liability law remains applicable.

Fault-based liability for digital autonomous systems posing ordinary risks only under Art. 8 *et seq*. of the Draft Regulation refers to the law of the Member States anyway, and thus cannot block its application. But does Art. 8 Draft Regulation preclude recourse to national rules which are not based on the fault principle, but which instead subject the operator of a digital autonomous system posing ordinary risk to strict liability?[78] The question is not of a theoretical nature, but arises, for example, in view of the strict liability of the owner of the thing (*gardien de chose*) under Art. 1242 (1) of the French Code Civil (Art. 1384 (1) Code civil aF).[79] It applies to all harm to third parties caused by a "thing", provided that it played an active role in the accident. Although it is disputed in French doctrine whether software generally qualifies as a thing (*chose*) to which *gardien* liability applies, this is certainly affirmed in the case of computer programs embedded in physical appliances.[80] From the point of view of French law, which classifies *gardien* liability as the second pillar of non-contractual liability, and accordingly had great difficulty in integrating the Product Liability Directive, it would be absurd if Art. 8 of the Draft Regulation downgraded liability for digital autonomous systems from strict to fault-based.

C. Result

All in all, there is little to be said in favor of a conclusive regulation of operator liability for digital autonomous systems involving ordinary risk at European level. The Draft Regulation's provisions on fault-based liability open themselves up to national tort law and should not – as surprising as this may sound – exclude the application of norms of strict liability, as they are to be found in national law. This flexible solution sits well with the Draft Regulation's rules on strict liability for high-risk systems, which assert no general prerogative over national law but are based on the premise that some of the national law remains applicable. The text of the Draft Regulation is much too sparse and narrow to cover the entire universe of

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[78] *Cf. supra* Part V. C.

[79] *In-depth* VINEY, JOURDAIN & CARVAL, *supra* note 70, at para 627 et seq.; for an overview *cf.* WAGNER, *Custodian's Liability*, *supra* note 24, at 441–443.

[80] *See only* TERRÉ, SIMLER, LEQUETTE & CHÉNEDÉ, *supra* note 25, at para 992 seq.

issues arising in both the law of tort and the law of damages, even when limited to damage caused by digital autonomous systems. Clear language that the Draft Regulation shall not be conclusive vis-à-vis the national law seems desirable.

IX. Conclusion

The European Parliament is challenging the Commission by presenting its own draft regulation on liability for digital autonomous systems, although it has no right of legislative initiative. Unfortunately, the parliamentary draft is not yet convincing. Since the Parliament could not or did not want to unpack and reform the Product Liability Directive, the only remaining option was the regulation of operator liability. And because the operator is confined to a very minor role when it comes to the control of a digital autonomous system, the concept of backend operator was invented or adopted in order to target the manufacturer, via the back door of operator liability. Such a manoeuvre is destined to wreak havoc, and consequently the Product Liability Directive is ultimately given precedence after all.

With regard to the frontend operator, the Draft Regulation subjects the operation of high-risk systems to strict liability. Following the tradition of German strict liability rules, the draft eschews a general clause of strict liability in favor of the principle of enumeration. However, the framers found themselves unable to compile a list of high-risk systems that shall be subject to strict liability. Again in line with the German legal tradition, the scope of compensation is defined narrowly, overly narrowly, for that matter. The restrictions have taken over the basic principle of full compensation of actual losses, as caps on damages set at extremely low levels are combined with the exclusion of any compensation for non-pecuniary losses and complete silence with respect to the assessment of damages for harm to property. The imposition of an insurance obligation for operators of high-risk systems seems justified, but it urgently needs to be supplemented by provisions that prevent discrimination, depending on the place where the damage occurred, and protect victims that sustain injury in another country.

Operator liability for systems posing ordinary risks is based on the fault principle in the Draft Regulation. Fault is not to be found in the misconduct of the digital autonomous system, but in the person of the operator. It is submitted that this orientation of the fault principle is a contradiction in terms. Art. 3 (b) Draft Regulation defines autonomous systems with reference to their ability to make their own decisions on their

course of action. Thus, the point about autonomous systems is that they elude the control of their operators. How, then, can a liability rule specifically designed for autonomous systems target the operator, i.e. the only party in the game that has very little to no control at all? The Draft's enthusiasm for the fault principle is also highly problematic in view of the existing laws of the Member States. France and other countries within the French tradition operate a system of strict liability for risks associated with things, i.e. tangible objects of any sort. In this respect, a blocking effect of European legislation ought better to be avoided. In short: A convincing proposal for a European regulation of liability for digital autonomous systems beyond the Product Liability Directive is still missing.