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Merging self-driving cars with the law

Jan De Bruyne*, Jarich Werbrouck

Department of Interdisciplinary Study of Law, Private Law and Business Law, University of Ghent, Belgium

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ABSTRACT

Self-driving cars are gradually being introduced in the United States and in several Member States of the European Union. Policymakers will thus have to make important choices regarding the application of the law. One important aspect relates to the question who should be held liable for the damage caused by such vehicles. Arguably, product liability schemes will gain importance considering that the driver's fault as a cause of damage will become less likely with the increase of autonomous systems. The application of existing product liability legislation, however, is not always straightforward. Without a proper and effective liability framework, other legal or policy initiatives concerning technical and safety matters related to self-driving cars might be in vain. The article illustrates this conclusion by analysing the limitation periods for filing a claim included in the European Union Product Liability Directive, which are inherently incompatible with the concept of autonomous vehicles. On a micro-level, we argue that every aspect of the Directive should be carefully considered in the light of the autonomisation of our society. On the macro-level, we believe that ongoing technological evolutions might be the perfect moment to bring the European Union closer to its citizens.

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1. Legal framework on self-driving cars in the European Union and the United States

Self-driving or autonomous cars are no longer a futuristic fantasy or part of a science-fiction movie. According to recent predictions, fully autonomous or driverless vehicles might be available within five years.¹ Today, companies such as Google

and Samsung are already testing prototypes of such vehicles on public roads. The introduction of autonomous cars will have an enormous impact on different aspects of society and on our current way of living and thinking. Policymakers will have to make choices with regard to certain aspects related to such vehicles.² It is, therefore, no surprise that legislation covering the testing, production and marketing of autonomous

* Corresponding author: Center of Contract Law, Department of Interdisciplinary Study of Law, Private Law and Business Law, Faculty of Law and Criminology, University of Ghent, Universiteitstraat 4, 9000 Ghent, Belgium.

E-mail address: jandbruy.debruyne@ugent.be (J. De Bruyne).

¹ James M. Anderson, Nidhi Kalra, Karlyn D. Stanley, Paul Sorensen, Constantine Samaras & Oluwatobi A. Oluwatola, *Autonomous Vehicle Technology – A Guide for Policymakers* (RAND Corporation, 2016, 4) (https://www.rand.org/pubs/research_reports/RR443-2.html) accessed 24 January 2018; Gillian Yeomans, *Autonomous Vehicles – Handing over control: opportunities and risks for insurance* (Lloyd's, 2014, 9) (<https://www.lloyds.com/news-and-insight/risk-insight/library/technology/autonomous-vehicles>) accessed 24 January 2018.

² See in this regard: International Transport Forum, *Automated and autonomous driving – Regulation under uncertainty* (OECD, 2015) (http://www.oecd-ilibrary.org/transport/automated-and-autonomous-driving_5jlwvzdfk640-en) accessed 24 January 2018; Daniel J. Fagnant & Kara Kochelman, "Preparing a nation for autonomous vehicles: opportunities, barriers and policy recommendations" (2015) 77 *Transportation Research Part A: Policy and Practice* 167; Harry Surden & Mary-Anne Williams, "Technological Opacity, Predictability, and Self-Driving Cars" (2016) 38 *Cardozo Law Review* 121; Brian A. Browne, "Self-Driving Cars: On the Road to a New Regulatory Era" (2017) 8 *Case Western Reserve Journal of Law, Technology and the Internet* 1; Jessica S. Brodsky, "Autonomous Vehicle Regulation: How an Uncertain Legal Landscape May Hit the Brakes on Self-Driving Cars" (2016) 31 *Berkeley Technology Law Journal* 851.

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cars is gradually being implemented at both sides of the Atlantic.

In the United States, for instance, the House of Representatives passed the Safely Ensuring Lives Future Deployment and Research in Vehicle Evolution Act or the ‘SELF DRIVE’ Act in September 2017. The Act aims to ensure the safety of highly automated vehicles by encouraging their testing and deployment. The SELF DRIVE Act gives the National Highway Traffic Safety Administration the power to regulate the design, construction or performance of autonomous vehicles, automated driving systems or components thereof. The Act also requires manufacturers to establish cybersecurity plans as well as a privacy plan, which has to describe how the information of vehicle owners or its occupants is collected, used, shared and stored. Moreover, the SELF DRIVE Act allows manufacturers to obtain safety exemptions to use up to 25,000 autonomous vehicles without complying with existing safety standards (the Federal Motor Vehicle Safety Standards) in the first year. This cap can rise up to 100,000 vehicles annually over three years. This exemption, however, can only be obtained if manufacturers can demonstrate that their vehicles provide an overall safety level, which is at least equal to the overall safety level of non-exempted vehicles.³

At the European Union level, the GEAR 2030 High Level Group addressed several aspects related to automated and connected vehicles as well. In its Final Report, the Group concluded that large-scale tests are necessary to make progress with regard to technological aspects for those vehicles expected beyond 2020. Such tests are also important to develop relevant rules, increase public acceptance and enhance cooperation between the involved actors. The High Level Group acknowledged that many activities on autonomous vehicles are already taking place in different Member States and within the European Commission. Several Member States have a national strategy for automated and connected driving or allow large-scale tests with autonomous vehicles.⁴ In Belgium, for instance, the Flemish Government recently decided to invest €3 million in a test project for self-driving cars. By 2019, such vehicles should be driving around on the Belgian public roads. To that end, the road infrastructure will soon be adapted on certain parts of the highway.⁵

³ Safely Ensuring Lives Future Deployment and Research in Vehicle Evolution Act (2017) (<https://congress.gov/bill/115th-congress/house-bill/3388/text>) accessed 24 January 2018. See in this regard also: Daniel A. Crane, Kyle D. Logue & Bryce C. Pilz, “A Survey of Legal Issues Arising from the Deployment of Autonomous and Connected Vehicles” (2017) 23 Michigan Telecommunications and Technology Law Review 191.

⁴ High Level Group on the Competitiveness and Sustainable Growth of the Automotive Industry in the European Union (GEAR 2030), *Ensuring that Europe has the most competitive, innovative and sustainable automotive industry of the 2030s and beyond* (2017, EU, 40-48) (<https://ec.europa.eu/docsroom/documents/26081>) accessed 24 January 2018.

⁵ Kristof Van der Stadt, “Vlaanderen investeert in supercomputer, zelfrijdende auto’s en onderwaterrobots”, Knack Datanews, 26 December 2017 (<http://datanews.knack.be/ict/nieuws/vlaanderen-investeert-in-supercomputer-zelfrijdende-auto-s-en-onderwaterrobots/article-normal-943671.html>) accessed 24 January 2018.

2. Technical and safety legislation and an adequate liability framework

Such actions allow and even encourage manufacturers to test autonomous vehicles with the aim of improving their overall functioning and increasing the safety level. However, several legal challenges remain.⁶ Those will need to be overcome before society can fully enjoy all the benefits of automated traffic. One of the major challenges relates to the question who should be held liable for the damage caused by autonomous vehicles. The answer to this question has a wider impact on the commercialisation and use of self-driving cars and is, therefore, of particular importance.⁷ As rightly concluded by Schellekens in a previous interesting and innovative contribution in this journal, ‘[l]iability and innovation are not isolated from each other but influence each other’.⁸ The author continues and warns for the ‘chilling effect of liability law’ leading to ‘a delay in the introduction of automated cars’.⁹ Whereas specific legislation is thus adopted to increase the safety and working of autonomous vehicles, the existing legislation on liability might be essential to determine whether producers will introduce autonomous vehicles and how fast this will happen. Much of the (technical) legislation or testing programs and initiatives might somewhat be in vain if the legal framework on liability is not adapted accordingly.¹⁰

As it remains uncertain whether autonomous vehicles will still have a ‘driver’ who can be held liable, the manufacturers of the software or the vehicle are interesting parties to target as ‘deep-pocket’ defendants.¹¹ Legislation dealing with their liability will, therefore, become important in the near future. In that regard, the GEAR 2030 High Level Group concluded that

⁶ See for a discussion of some of these challenges: Nick Belay, “Robot Ethics and Self-Driving Cars: How Ethical Determinations in Software Will Require a New legal Framework”, (2015) 40 Journal of the Legal Profession, 119; Peter J. Pizzi, “Connected Cars and Automated Driving: Privacy Challenges on Wheels”, (2017) 84 Defense Counsel Journal 1; Francesca Favarò, Sky Eurich & Nazanin Nader, “Autonomous vehicles’ disengagements: Trends, triggers and regulatory limitations” (2018) 110 Accident Analysis & Prevention 136; Cesare Bartolini, Tamás Tettamanti & István Varga, “Critical features of autonomous road transport from the perspective of technological regulation and law” (2017) 27 Transportation Research Procedia 790; Daniel J. Fagnant & Kara Kocheman, “Preparing a nation for autonomous vehicles: opportunities, barriers and policy recommendations” (2015) 77 Transportation Research Part A: Policy and Practice 167.

⁷ Jan De Bruyne & Jochen Tanghe, “Liability for Damage Caused by Autonomous Vehicles: a Belgian Perspective” (2017) 8 Journal of European Tort Law 324; Andrzej Rapaczynski, “Driverless Cars and the Much Delayed Tort Law Revolution” (2016) Columbia Law and Economics Working Paper No. 540 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2764686) accessed 24 January 2018.

⁸ Maurice Schellekens, “Self-driving cars and the chilling effect of liability law” (2015) 31 Computer Law & Security Review 510.

⁹ Ibid 511.

¹⁰ Ibid 511-512; Andrzej Rapaczynski, “Driverless Cars and the Much Delayed Tort Law Revolution” (2016) Columbia Law and Economics Working Paper No. 540 3.

¹¹ Jan De Bruyne & Jochen Tanghe, “Liability for Damage Caused by Autonomous Vehicles: a Belgian Perspective” (2017) 8 Journal of European Tort Law 334-348 and 364-370 with further references; Nidhi Kalra, James M. Anderson & M. Wachs, *Liability and Regulation*

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