

INTELLIGENT CARS AND INTELLIGENT TRANSPORT SYSTEM

LEGAL ISSUES UNDER EUROPEAN LAW¹

1. A MOVING SCENARIO

For some time news about intelligent (or autonomous) cars seemed to be exclusive of the US, indeed of Silicon Valley, with private entrepreneurs (Google, Apple, Tesla) speeding up their efforts to be the first on the market. By contrast, European car makers until some time ago seemed to have little say on this new field. In March 2015 FCA has been reported to be in talks with Apple² and more recently this news has surfaced again³. Audi and Mercedes are apparently starting to test autonomous cars, where the front seats are turned towards the interior of the car, thus creating a sort of living room, while Volvo has recently showed “Concept 26”, a car where a giant screen replaces the windshield, equipped with a comfortable armchair where one can sit and relax while the automatic pilot does the job. SEAT (a subsidiary of VW) is apparently working with SAP and Samsung on a project of its own. Public entities have also shown interest to autonomous cars: in Germany a pilot test has been run with a vehicle code-named Leonie, developed by the Technical University of Brunswick⁴. This car has been circulating without a human intervention (albeit with one driver always on board, just in case...).

Independently from the coming developments on autonomous cars, the truth of the matter is that car industry in recent years has been going through a number of innovation and renovation, and the most important news have come from the introduction of digital features. Until recently the evolution of cars had been limited to the mechanics of the car itself. Engineers have been testing new materials and new engine design, to allow smoother drive, higher speeds and lower consumptions. Along with new design (which pretty much depends on what’s fashionable) for years these have been the highlights of car developments.

More recently, the digital world has made its inroads into car-making. Slowly at the outset, but with increase speed in recent years more and more cars have been turning to digital. They have first been using some sort of digital control station to check wear and tear of different parts of the car: digital systems have been developed to adjust the car to different road conditions, cars have been connected to the Internet, equipped with GPS to allow navigation systems, cruise controls,

¹ This is the original paper submitted by Raffaele Zallone and discussed at WEROBOTS 2916 at the Miami University Law School on April 2, 2016.

² <http://www.autonews.com/article/20160302/COPY01/303029973/apple-freak-marchionne-keen-on-fca-building-tech-giants-car>

³ <http://www.digitaltrends.com/cars/fca-ceo-marchionne-wants-to-build-an-apple-car/>

⁴ [http://bast.opus.hbz-](http://bast.opus.hbz-nrw.de/volltexte/2013/723/pdf/Legal_consequences_of_an_increase_in_vehicle_automation.pdf)

[nrw.de/volltexte/2013/723/pdf/Legal_consequences_of_an_increase_in_vehicle_automation.pdf](http://bast.opus.hbz-nrw.de/volltexte/2013/723/pdf/Legal_consequences_of_an_increase_in_vehicle_automation.pdf)

etc. Automatic parking and other limited driving functions have been added, thanks to the help of ad-hoc software programs.

Other players have come into the picture: insurance companies have been pricing their customers on the basis of average car use and driving habits. To do so, they have installed a “black box” on the car, that measures the mileage, speed, average use per week, etc. Similar boxes have been used in Italy to control the driving habits of bus drivers and enhance maintenance of the buses⁵. Pay-as-you-drive and pay-how-you-drive are commonplace now in the marketplace, with interesting legal and privacy implications.

In strictly legal terms, the Italian Code of Roads and Vehicles puts no limitation on the way a car is operated, but this is no indication whatsoever. The fact is that no legislator, so far, has had to cope with the issues of autonomous cars, hence European legislators (as any legislator in any country) have not regulated this matter since no one has ever thought of the possibility of a driverless car. So far, no indication that the presence of a driver is mandatory can be found in European Law, nor any indication can be found as to what requirements an autonomous car must have. Nevertheless it is very likely that, if and when autonomous cars will be on the market, a regulation will definitely be approved to detail specific rules and condition of use.⁶

At the same time the focus of European legislators has been concentrating on another aspect of transportation, i.e. safer driving conditions, by enhancing the present freeway system.

Driving and moving habits are very different in Europe as compared to the US: public transport systems exist in most large cities in Europe, and in some cases have been in use for hundred years⁷, and are an integral part of the European lifestyle. It is no surprise that in many cities in Europe autonomous transportation means already exist and have been operational for some time. The new subway line in Milano, just to mention one, is completely automated: trains travel without a driver, the driver (if one may call him this way) in fact operates from a remote console. The train stops and leaves the stations in a completely automated fashion. This is nothing new: similar systems exist in the London Subway, and at the San Francisco International Airport the shuttle connecting the different terminals and the parking areas operates exactly in the same way.

At legislative level it is fair to say that in Europe the focus is on the overall infrastructure and not on the car. This has been evident in Italy for some time. For years now in the Italian Highway system has been installed a system to monitor speed, called TUTOR. This system is composed of a series of “reading stations”, placed at an interval varying from 30 to 40 Km’s. Each reading station reads the vehicle plate and the speed. If the vehicle travels beyond maximum speed, the system has access to the vehicle database, so that a fine can be then levied to the owner of the car. On

⁵ <http://www.garantepriacy.it/web/guest/home/docweb/-/docweb-display/docweb/1672796>

⁶ See chapter 2, below

⁷ London subway, better known as “the tube”, has opened in 1863;
https://en.wikipedia.org/wiki/London_Underground

top of this, the system also checks the average speed: the driver, in fact, may slow down when in sight of the reading station, but may have exceeded the maximum allowed speed in the rest of his trip: in this case as well, the system processes the data and the fine is then notified to the owner.

A similar system is in place in Milano and in other cities in Europe where the downtown area is a limited traffic area, where access is limited and subject to an access fee: video-cameras read all the plates of vehicles entering the limited-traffic-zone, and the owner has 24 hours to pay the access fee. If no access fee is paid, the system notifies the fine to the owner.

Right now Europe is moving into a different direction. With its decision 585 of May 14, 2014, the European Parliament has approved the so-called eCall initiative⁸.

This decision orders Member states to implement by the end of 2017 an emergency calls system. In case of accidents, an automatic call will be placed to a call center. This will generate an immediate intervention of rescue teams that, through the call (and the data available through the eCall system) will know the exact place where the accident has taken place, the number of vehicles are involved and if the number of casualties, if any. Under this initiative, by 2018 all new cars sold in Europe shall have a facility or system to connect to such eCall system.

With the eCall initiative Europe is moving the first step in the direction of the ITS, Intelligent Transport System, with the aim to deploy an infrastructure that will increase road safety as well as energy efficiency. Its easy to understand that a similar initiative has significant technological and legal implications. From the technology point of view, an enormous amount of work has to be done in order to ensure full functionality, compatibility, interoperability and continuity of service. A trilateral working group between EU – US and Japan has been set up to develop common standards and address the technical issues, necessary to tackle the four points I just mentioned. All car industries have to co-operate, since it is not conceivable that each country and/or each car manufacturer goes its own way.

The stakeholders are many: the car manufacturers and the transport industry at large; the network operators (fixed and mobile) that shall deploy the infrastructure for the E-call; the suppliers of both the transport industry and of the network operators; public authorities: this is a major public infrastructure on one side; on another side they will be the bodies that shall approve the technical standards to be used to set up this infrastructure.

It is a very composite scenario, that shall dramatically change the picture of the transport industry as we know it to-day: as different levels of automation shall be deployed, by the transport industry as well as from the owners of the infrastructure (highways and communication operators) we shall see a switch to interactive traffic management, with road hazard warnings, violations warnings and energy efficient information services. The increase of autonomous cars, in this respect, shall

⁸ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014D0585&from=IT>

be a major factor in allowing integration of all the new services and facilities that, hopefully, shall make our freeways more safe.

2. LEGAL IMPLICATIONS AND EVALUATION

All possible future developments I briefly mentioned above has significant legal implications.

Of course, there will be other implications as well. For instance, the decrease in car accidents and casualties that are forecasted as a direct consequence of the new driving standards will have significant social implications. Many implications shall not be legal implications alone: insurance companies shall be hit, one way or another: less accidents shall mean more profits at the beginning, but decreasing insurance costs (for the consumers) in the longer term, with lower revenue for insurance companies. Less accidents shall mean less need for car body repairs and car spare parts: windshields, tyres, etc. Jobs will be lost in these businesses, as direct consequence of the decrease in accidents. On the up side, there shall be more demand for electronic and digital components, expert workforce shall be necessary, since the core of the new systems shall be digital and communication gear. Cars mostly shall be electric, so more batteries, but mostly more efficient batteries.

2.1 LIABILITY

So lets get to the real legal stuff. But before we do this, let's try to categorize the different scenarios for autonomous cars, since there are differences in the level of automations, with obvious consequences from a legal perspective.

1. Level one: no automation. The driver takes full responsibility for the operation of the car, which is constantly under its control.
2. Level two : minor automation. The driver continues to have full responsibility but is assisted in certain actions (parking, spotting of obstacles, etc).
3. Level three: partial automation. The system takes control of the car, the driver is required to permanently monitor and to be prepare to take control if and when necessary.
4. Level four: high automation. The system has total control of the car, the driver is no longer required to monitor. The driver can take over, if he wishes, in a pre-defined set of circumstances.
5. Level five: full automation. The system has full control, the driver cannot take control other than in cases when required by the system itself.

It's easy to understand that there shall be very different consequences in any one of these situations, that we shall try to examine in a minute. What I believe it is necessary to say is that what I shall examine in this paragraph is liability implications under points 4 and 5 above, i.e. situation of high automation, where the driver does not participate in controlling the car, or participates in a very marginal way. The implication under sections 1, 2 and 3 are the same as

under present legislation and case law, since in these cases it is assumed either full control by the driver (case 1 and 2) or that the driver assists and is fully aware of the operations of the car and retains the option to override the system operations where and when needed. The analysis should address therefore scenarios under point 4 and 5, but in doing that one basic question needs to be answered.

The main point to define to address the issue of liability of the so-called autonomous cars is the following. The assumption many researchers do is that “a scenario of full automation of vehicles fit for public road traffic is currently not in view⁹. Nevertheless, the nature of these vehicles must be defined, given that these vehicles shall be object of commercial transaction and every-day use by consumers and by the public at large.

There is no doubts that a fully automated cars, that needs no human intervention to work properly, is a robot, if we assume a robot is a machine that can perform in total autonomy a series of functions on the basis of a pre-defined set of rules. Of course, this robot would not be a humanoid, as sometimes robots are depicted, but to all practical effects this is what they will be.

The questions that arise from a similar car are many. The first and most important question is: will the public authorities allow a self-driving car or shall they require the possibility (or the need) to maintain human supervision? Shall they require to allow/impose the possibility to override the choices of the robot?

The next question is: regardless of the choices made on the first question, does the existence of a fully automated driving system exempt the owner of a vehicle from liability? If the owner (at this point I am hard-pressed to call her/him the driver) is on board of the vehicle when the accident occurs, who is responsible, the owner or the robot? And if the answer is that liability lies on the robot, is it possible for an entity to be liable if it is not a human and/or a legal person? Product liability as we know it to-day seems to be a different thing from what we have here; up to now, liability for a defective products lies on the manufacturer (defined in different ways in different jurisdictions). Is it legally and indeed philosophically possible to imagine responsibility of the product itself, once is fully operational?

But the whole issue will depend on the answer to the first question. If the car is a self-driving car, will there be a concurring responsibility between manufacturer and driver, the manufacturer being liable for design or product failure, the owner for defective maintenance or modification made to the robot? And who is the manufacturer? The company who programmed and designed the electronics that allow the self-driving function, or the traditional car manufacturer who assembles the various parts? There are profound ethical implication in these question; it is my opinion that right now we are in a very early stage that makes it impossible, indeed dangerous to

⁹ http://bast.opus.hbz-nrw.de/volltexte/2013/723/pdf/Legal_consequences_of_an_increase_in_vehicle_automation.pdf, page 8.

try and find a solution at this point. Any and all possibilities will need to be deeply analyzed from a legal point of view, in order to understand the different implications arising from any one of them. In addition, any answer will need a well established set of product functions, a deep knowledge of the technology used and a thorough analysis of all implications of all possible choices. In any case, my conclusion is that we have very significant legal and ethical questions on the table that need to be deeply analyzed before it will be possible to come to a conclusion, and all of this must happen before these cars will be commercially available for traffic usage.

One thing we know is the present legal scenario in Europe, where maximum care is mandatory to avoid risky situations and, therefore, to avoid liability. Section 140 of the Italian Traffic Code states that “users of the road must behave in a way not to create a danger or obstacle to circulation, and in any case safeguarding traffic safety”¹⁰. This seems to imply a coexisting liability of the owner (the law does not limit itself to the driver, the word “user” being very general, a catch-all kind of wording that may be used to include every possible situation¹¹ .

The driver in our present system has an obligation to always maintain control of the vehicle, as stated by Section 141.2 that requires the driver (and this time the word used by the Code is “driver”) “to always maintain control of the vehicle and to be able to perform all necessary maneuvers in safe conditions”¹². Same is true under the German legislation and the same principle can be found in the Vienna Convention on Road Traffic, the international treaty that regulates cross-border traffic.¹³ The conclusion is that in the present legal scenario a fully automated vehicle, or the “autonomous car” under development is most likely not legally feasible and a change in legislation shall be necessary to allow it. Such change in legislation shall be possible only after the question asked above on the liability of the product vs liability of the human shall have been answered.

Under the present legal scenario, and with the express reminder that any conclusion on the point of liability of a fully automated vehicle (or autonomous cars) will be possible only after the legislative and regulatory system shall have been adapted to this new reality, the only way to address the issue of liability is on the basis of the provisions presently in force on product liability. Nevertheless, since we are debating a future situation where, as I said, the legal regulatory scenario is unknown, any legal analysis based on product liability rules, a legislation that mostly addresses different scenarios, would be mere speculation.

¹⁰ http://www.mit.gov.it/mit/site.php?p=normativa&o=vd&id=1&id_dett=143

¹¹ German legislation has similar principles, and the point has been made that under the present legislation the existence itself of a fully automated car would not be legally feasible (see http://bast.opus.hbz-nrw.de/volltexte/2013/723/pdf/Legal_consequences_of_an_increase_in_vehicle_automation.pdf, introduction and page 18)

¹² http://www.mit.gov.it/mit/site.php?p=normativa&o=vd&id=1&id_dett=144

¹³ The Vienna Convention on Road Traffic of November 8, 1968, available at <http://live.unece.org/trans/conventn/legalinst.html>

2.2 EVIDENCE

One very interesting implication of the technical nature of autonomous cars is that one key point to address is the collection of evidence. In any litigation, evidence is the key to success. In traffic liability cases evidence is based on witnesses, video-camera images (if available), on after-the-facts reconstruction made by Highway Patrol (if available) and by other circumstances (alcohol test, drug test, etc).

In the case of autonomous cars we must give for granted the impossibility to perform alcohol and/or drug test on a robot, but lawyers, and specially litigators, must be ready to know and understand all the issues related to digital evidence.

To-day, the vast majority of car accidents is the consequence of human mistake; in the future, in the case of autonomous cars the possibility of human mistakes should be very limited.

The main causa for accidents shall most likely be machine or software failure. In either case, the evidence shall be available in the memory of the robot, and it will be digital in nature. Proper forensic techniques shall be applied to be certain that the evidence is admissible, and most of all that evidence is not altered or lost. In this respect, it shall be of vital importance to know where does the evidence lay: will it be in the car itself? Will it be in a cloud, owned and controlled by whom? the maker of the car, the developer of the IT infrastructure? And, if the data are in the cloud, is there any legal obligation on the operator of the cloud service (or the user of the cloud service) to avoid manipulation and to store the data for a given period of time?

Once the evidence is obtained, system data have to be read and interpreted, so program language must be obtained as well in order to be able to use the available code; all other possible evidence deriving from the cars involved in the accident must be compared and analyzed: not an easy and simple task, that shall require the assistance of properly trained technical people, and of lawyers with good technical knowledge.

3. DATA PRIVACY

The protection of persona data, sometimes known as data protection or data privacy, is one of the most critical areas for the digital world at large. The enormous increase in use of personal data deriving by the use of commonly used devices like smartphones, tablets and computers, the widespread use of social networks by all kinds of users has created a whole new market for personal data, and has attracted the attention of European legislators. In a short time the new general regulation on data protection shall be implemented in Europe, which will significantly change the legislative scenario as we know it to-day.

In Paragraph 1 I mentioned the eCall initiative. After the vote of the European Parliament, the Commission has adopted Regulation (EU) 2015/758 of April 19¹⁴, a new General Regulation that sets the rules of the eCall initiative. Section 6 of said Regulation lays down the provisions related to the privacy of personal data of the users (owners of the car) of the eCall system. It's a long list of do's and don't's, that follows the line of the rules laid down in Directive 95/46/EC (and of the future Regulation).

As to the purpose for which the data can be processed, the Regulations states that the data must be used only to handle emergency situations. The second point is about time of storage: the regulation requires that data must be deleted soon as they are no longer necessary for such purposes. In other words, if no accident occurs, the data must be cancelled right away. Manufactures must ensure that the 112-based eCall system¹⁵ is not traceable and not subject to constant tracking. The data in the system (i.e. in the memory installed in the cars) must be automatically removed (the regulation does not use the word: delete, but the word remove, whatever that means), with one exception: the last three locations recorded can be kept, only as long as it is necessary to understand the exact location and the direction the car was traveling at the time of the accident. No one outside the eCall system may have access to the data, and privacy enhancing technologies must be used to minimize risks of privacy violations and misuse.

EU Privacy law (be it Directive 95/46/EC or the future regulation) require that due notice of the processing must be given to the data subject (i.e. the person whose data are being processed). In the case of eCall, it is the manufacturers who have such obligation. These information shall be provided for in the owner manual.

Now, this provisions need a short comment. First of all, as I said in Paragraph 2, the digital evidence in case of car accidents may be extremely important to understand its dynamics and to establish liability. The requirement set by section 6.3 and 6.5 of Regulation (EU) 2015/758 call for the data to be used only for handling emergency situation, and must be erased soon afterwards. Any use for a different purpose is forbidden, hence, on the face of it, the data shall not be available to be used as evidence and/or establish liability. The second question relates to the provision that requires manufacturers to ensure that the data are automatically removed: removal means erasure (i.e. the data shall no longer be available) or does it means that the data do not reside in the car any longer, but can be stored somewhere else? And: who is the manufacturer, the car maker or the manufacturer of the IT system of the car? If a hint can be taken by the provisions on the information to be given to the data subject, where it is the manufacturer of the car who has the obligation to inform the owner of the car in the user's manual, it is reasonable to conclude that this obligation rests on it and not on the manufacturer of the IT system (but this is an early interpretation, to be taken with due care). In any event, this

¹⁴ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015R0758&from=EN>

¹⁵ 112 is the uniform emergency number used in all of Europe

means that subcontracts with suppliers must be drafted with due care to cover this point, as well as the other point about using “privacy enhancing technologies”¹⁶. Personally I do have an issue with two concept that are very popular with privacy advocates and that are different, but quite similar in the final aim, “privacy enhancing technologies” and “privacy by design”, the latter being a concept heavily publicized in the last six years or so (Privacy by Design means building privacy into the design, operation and management of a given system, business process or design specification, a concept and a term originated by former Ontario’s Privacy Commissioner Ann Cavoukian ¹⁷). In almost 20 years of practice in data privacy I have seen no major company seriously embracing any of these concept, nor any major SW being developed on the basis of PbD. And I’ve never seen any beneficiary effect coming from a concept that almost no one has embedded in its practices, so I do not see what benefits may derive from this provision. In any event, and regardless of my attitude to it, to the extent possible the makers of the IT infrastructure shall pay attention in trying to include in their developments functions that may facilitate the protection of the privacy of the users .

Regulation (EU) 2015/758 I just commented is a good starting point to address the more general issue of privacy in autonomous cars, just as in any other electronic device (like navigators) being used in connection with the use of the car.

EU law on privacy may be summarize very easily: it basically states that if any given subject (let’s call it company A) wants to process the personal data of any given natural person (let’s call her/him citizen X), it must inform this person (that the law defines as the “data subject”) as to the fact that it is going to process such data, and has to tell her/him why. After all, if Company A wants the data, they must be used to pursue some purpose, whatever that may be: this purpose must be clearly stated to the data subject. In certain cases the consent of the data subject will be necessary, in other cases it won’t (e.g: if the data are necessary to perform a contract, if the data have to be processed to comply with a legal obligation, etc).¹⁸

These same obligations have to be complied with for any personal data which is being processed by the autonomous car. In this respect, one of the major issue is the processing of geo-localization data. Assuming the car has a navigation system that memorizes the different locations the driver has visited, this creates certain privacy issues, i.e. exactly the same issue that arises with smartphones or smart devices in general. The rules on the processing of data from mobile smart devices have been clearly addressed published by the Working Party Art. 29 ¹⁹, that in a document

¹⁶ Article 6.7 of Regulation (EU) 2015/758

¹⁷ <http://www.computing.co.uk/ctg/feature/2428799/privacy-by-design-an-idea-whose-time-has-come>

¹⁸ Section 7 of the EU Directive 95/46/EC indicates the criteria for legitimate processing of personal data <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31995L0046&from=en>

¹⁹ The WP 29 is a working party called for by sec. 29 of directive 95/46/EC. It is an independent body, composed by members of the Data protection Authorities, with consulting powers. Its documents, albeit the role of the WP29 is merely consulting, are the reference point in EU privacy laws, since they express the view of the DPA’s.

published in 2011 has indicated rules, duties and obligations.²⁰ The first thing to do in this case is to identify the controller, i.e. the subject that processes the data. I have dealt above with this point when commenting Regulation (EU) 2015/758. Of course, the opinion of WP art. 29 addresses smartphones and similar mobile devices and not cars; in any case WP art.29 states that the controller can be either the subject that controls and manages the ITC infrastructure, or the provider of the geo-localization services, or the developer of the operating system (although this latter only when and if it interacts directly with the user). The opinion does not mention the maker of the phone itself, who is not usually part of this scheme, but once again by analogy one can conclude that the maker of the IT system of the car can be regarded as one of the possible controllers of the processing.

The WP art. 29 has taken the position that the informed consent of the user must be obtained to process the location, as well as to supply value-added services to the users.²¹ So, just to make an examples, someone offering a service to locate and indicate restaurants or shops in given areas or towns must obtain informed consent prior to offering such services. Location data and data about driving habits are a goldmine for insurance companies; they may be of lesser relevance in a autonomous car environment, but the knowledge that a car driver frequently is present in certain areas may be an indication of higher potential for the car (or some of its devices) being stolen, with obvious consequences. Now, as we've seen before, personal data deriving from the eCall system cannot be used for purposes other than emergency situation, so this is a clear showstopper for pursuing this kind of processing.

It has also to be mentioned that in certain legislations geo-localization services require prior notification to the local DPA, so this point needs to be checked in each jurisdiction, since the consequences of omission of notification can be severe.

Geo-localization in the context of a labour contract can also be an issue: in Italy, such practice requires prior checking with the Italian DPA, who has ruled in a couple of occasions on similar requests filed by employer with respect to Apps running on the smartphones of the employees who where performing maintenance services in the customer premises²², since remote control of employees may fall under specific labor law legislation. In addition, if the device does constantly

²⁰ WP 185; Opinion 13/2011 on Geo-localization on Smart Mobile Devices, available at http://ec.europa.eu/justice/data-protection/article-29/documentation/opinion-recommendation/files/2011/wp185_en.pdf

²¹ Given the sensitivity of the processing of (patterns of) location data, *prior informed consent* is also the main applicable ground for making data processing legitimate when it comes to the processing of the locations of a smart mobile device in the context of information society services., WP 185, sec. 5.3.1, page 13, http://ec.europa.eu/justice/data-protection/article-29/documentation/opinion-recommendation/files/2011/wp185_en.pdf

²² Italian DPA, decision of October 9, 2014, <http://www.garanteprivacy.it/web/guest/home/docweb/-/docweb-display/docweb/3505371>

track the various location where the employee has been, this has to be checked to see if it is conforming to the adequacy and relevance test²³.

Another potential privacy issue is data breach: in general, EU privacy laws require that security measures be taken to protect the personal data. In the context of autonomous cars, this means a significant effort to avoid the code of the car being cracked and the car and/or the data being stolen.

Security of personal data is a major obligation of the controller; in addition, in autonomous cars the owner of the car is likely to have very skill and necessary know-how to implement significant security measures, so that the main obligation to protect the data is an obligation for the manufacturer (and once again: will it be the manufacturer of the car or the manufacturer of the digital devices and software? I would assume that the latter has the main obligation to install adequate security measures). Data breach require immediate notification to the local DPA²⁴ and, in some instances, to the data subject; in the case of autonomous cars the system being cracked may contain data related to third parties as well, but the issue here is that the obligation to report the data breach rests with the data controller, who may not be aware of the theft and, therefore may not be in the condition to file the report within the 72 hours deadline. One possibility may be to contractually agree that, in case of theft, there must be a way for the owner to inform the data controller, so that he may fulfill its obligation to report the data breach.

Can the personal data collected with car usage be communicated to third parties, and if so, what data may be communicated? Regulation (EU) 2015/758 forbids any use of the data of the eCall system other than for emergency situations, so such data cannot be used for any other purpose. Data collected by separate, different devices can be communicated to third parties, but subject to the previous informed consent of the owner of the car. This could be the typical method to supply or offer value added services to the owner of the car.

There is one final point to make. History tells us that more consumers use a given product, more data are available and more data may be sought, in order to offer new services. The usual justification for this is that these services offer an added value to the consumer, giving him information about new products, promotions (both general and specifically aimed at a given cluster of consumers, etc). The amount of personal data that can be recorded, stored and processed from the use of an autonomous car is potentially enormous; the number and variety of services that could be offered is equally very high, and businesses shall try with every possible means to gather as much data as they possibly can. Once again, the collection of such data must be balanced and verified in the light of the relevance and adequacy test called for by European

²³ Personal data must be adequate, relevant and not excessive in relation to the purpose for which they are collected and /or further processed; Directive 95/46/EC, Art. 6.1. c; <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31995L0046&from=en>

²⁴ Under section 31 of the new GDPR data breaches have to be reported to the DPA within 72 hours

privacy law²⁵. If they exceed the purposes for which the data is collected (that must have been clearly stated in the information sheet due to the data subject) any processing for additional or new purposes may be illegal and subject to significant sanctions.

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²⁵ See footnote 22, above