ACEA European Automobile Manufacturers Association

WHITE PAPER ON ARTIFICIAL INTELLIGENCE

ACEA WRITTEN RESPONSE TO THE PUBLIC CONSULTATION

KEY MESSAGES

- The ACEA's response to this consultation constitutes a first step in the support which vehicle manufacturers aim to give to all European policy makers throughout this process, in order to enable EU excellence and trust in Artificial Intelligence (AI). ACEA stands ready to further discuss the actual details of any potential draft proposal or specific update to an existing legislation.
- A disproportionate overregulation of AI technology should be avoided, as this not only would bring legal uncertainty to businesses, but it would also restrain innovation and impede AI uptake and adoption across the EU. Hence, ACEA strongly recommends to the Commission to ensure that any new regulatory AI framework does not duplicate, replicate or invalidate the existing certification requirements and sectoral regulatory frameworks already in force in the automotive sector (e.g. Type Approval[1]; UNECE work-streams[2]), and to carefully consider where the latter and/or industry standards[3] are better instruments to address any possible gap in the current EU legislation.
- Overall, putting highly automated driving on par with AI and directly deriving from this a need for additional regulation that goes beyond previous rules is deemed by ACEA as very problematic, especially where extensive, directly applicable regulations already exist for product safety and vehicle homologation.
- Therefore, a clearer definition of AI as well as a differentiation between its approaches and techniques are of utmost importance when drafting legislation in order to prevent that traditional software systems (e.g. key features of highly automated vehicles which are already implemented without the use of what the Commission identifies as AI), as well as "narrow AI" applications used and deployed in vehicles today (e.g. lane recognition, vehicle

[1] Alignment required especially with the new General Safety Regulation (EU) 2019/2144, Article 11 setting out "Specific requirements relating to automated vehicles and fully automated vehicles".

[2] Alignment required especially with legislation developed within the framework of the Working Party on Automated/Autonomous and Connected Vehicles – GRVA.

[3] Building upon e.g. SOTIF 21448 – Standard for the Safety of the Intended Functionality); ISO/TC 241 WG6: Road Traffic Safety (RTS) – Guidance on safety ethical considerations for autonomous vehicles.

recognition or traffic sign recognition), fall under the scope of the proposed new regulation for high-risk AI applications.

- ACEA reminds that the properties and risks described in the White Paper in relation to AI, such as "opacity", "complexity", "autonomy" and "updatability", are not uniquely applicable to AI systems but instead characterize other new technologies or any other algorithmic technique. Consequently, the Commission must ensure that legal standards continue to be based on/are developed in compliance with the principle of technological neutrality.
- ACEA urges the Commission to refrain from the adoption of a sectoral risk-based approach: placing entire sectors under general suspicion would hamper AI development, impair the use of AI for non-critical functions/services ("low-risk" AI applications), harm EU competitiveness and location's innovative power altogether. ACEA encourages the Commission to adopt instead a risk-based approach, which sensibly assesses and classifies the risk level on a case-by-case basis, exclusively according to the specific AI application and its intended use.
- However, an accurate and narrow definition of high-risk is required, in order to avoid moderate-risk AI use cases being classified as high-risk and thus, being overregulated. Alongside this, the clear specification of (i) the criteria which the assessment and classification of high-risk should be based on, as well as (ii) the entities in charge of evaluating whether an AI application is high risk are required. ACEA suggests that factors such as the "safety-relevancy", the "autonomy of learning", the "autonomy of decision-making" and the "type of algorithmic model" could be considered as sensible criteria to assess the risk category/critical use of AI applications, while recalling that the existing ISO26262 reference guidelines (and more generally the IEC 61508 for the rest of the transport systems) already provides an automotive-specific risk-based approach for determining risk classes.

1. ACEA'S POSITION ON "AN ECOSYSTEM OF EXCELLENCE"

Overall, vehicle manufacturers agree that Artificial Intelligence (AI) systems have considerable benefits for the whole of society beyond the individual perspective. The importance of fundamental research, development, and industrialization of Artificial Intelligence is reflected in the need for coordinated European approaches, a single economic area for data and AI, as well as "excellence and testing centres". All these intentions are supported by vehicle manufacturers.

Among the actions suggested in the White Paper, a first positive one to underscore is the plan to invest around € 20 billion per year in Europe over the next ten years, particularly in light of rapidly accelerating international competition. A differentiated approach to initial and advanced training should not only focus on educating and retaining talented AI researchers and developers in Europe, but also, more generally, on providing citizens and the workforce with the qualifications necessary to allow them to apply AI and deal with the associated changes. While advanced training is required to increase the skill sets of technical professionals to include AI methodologies, ensuring an EU-wide minimum knowledge on AI from an early age is crucial to increase the understanding and public acceptance of AI based-technologies.

Although the idea of establishing a cutting-edge lighthouse research centre in Europe sounds attractive by giving more visibility to AI research done in Europe, it should not be developed in the detriment of the existing networks of research centre on AI, which may be specialized in different fields of AI. An important focus of EU actions on AI research should be to strengthen capacity building of the existing AI research excellence centres throughout Europe and to foster their networking and collaboration. Prior to setting up new public-private partnership on AI, it should not be forgotten to join forces with the already-existing PPP[4]. Following the footsteps of euRobotics/BDVA can be a source of added value for SMEs, large companies, and the public sector.

Vehicle manufacturers lastly recognize the importance of ensuring that SMEs can access and use AI, as they are not only the backbone of the EU economy, but also relevant players in the automotive ecosystem as suppliers and subcontractors. The role of Digital Innovation Hubs in supporting the development of AI expertise for SMEs and knowledge transfers to young enterprises and Start-ups that are new to the market and do not necessarily have their own means to develop AI capabilities, is very much endorsed. However, a knowledge transfer to those well-established companies included in the definition of SMEs that might be market leaders in their domain, and have their own capabilities to develop own algorithms and applications, should be scrutinised as this could provide them with an unfair competitive advantage.

[4] https://ec.europa.eu/digital-singlemarket/en/news/artificial-intelligence-public-private-partnerships-join-forces-boost-aiprogress-europe

2. ACEA'S POSITION ON "AN ECOSYSTEM TRUST"

The idea emerging from this section is that trust in the technology can be achieved only through regulation and certification; the term "trust" is used in a rather unspecified way for numerous aspects, from user acceptance to legal conformity, compliance with ethical standards and respect for (European) values. The entailed "Problem Definition" is similarly unspecific, but significant regulatory demands are derived from it. On the one hand, the seven key requirements for trustworthy AI formulated by the EU High-Level Expert Group on Artificial Intelligence (AI HLEG) are reasonable and should be supported. On the other hand, these need to be conveyed in specific legal and regulatory terms in such a way that the existing legislation on basic and human rights, consumer protection, product safety and liability is both reinforced in terms of its applicability and expanded or supplemented exclusively where new technologies (such as AI) explicitly create new risks or obstacles. However, prior to the identification of any need for regulatory intervention, a specific assessment of AI use-cases is required.

2.1 DEFINITION OF ARTIFICIAL INTELLIGENCE

- Differentiating and defining AI poses a significant challenge in this regard, since the White Paper falls back on a phenomenological description, which remains too vague and broad, and would therefore need to be clarified. Referring to COM(2018) 237 and AI HLEG[5], the White Paper describes the perception of the environment through data acquisition, the interpretation of these data, conclusions drawn based on knowledge or information gleaned from the data, and decision-making in relation to a complex objective as key elements of an AI system. This depiction carries the risk of introducing regulations for traditional software systems under the umbrella of the AI regulatory framework. Indeed, it must be reminded that also non-AI software are able to input data from their surroundings, process this data and take some sort of decision/perform a certain action that produces an output.
- In this context, autonomous vehicles are listed as an example of such AI systems. However, vehicle manufacturers urge the Commission and EU co-legislators to recall that key features of highly automated vehicles are already implemented without the use of what the Commission indicates as AI: Traditional driving dynamics control and advanced driver

[5] "Artificial intelligence (AI) systems are software (and possibly also hardware) systems designed by humans that, given a complex goal, act in the physical or digital dimension by perceiving their environment through data acquisition, interpreting the collected structured or unstructured data, reasoning on the knowledge, or processing the information, derived from this data and deciding the best action(s) to take to achieve the given goal. AI systems can either use symbolic rules or learn a numeric model, and they can also adapt their behaviour by analysing how the environment is affected by their previous actions."

assistance systems already assess the vehicle's surroundings via distinctive sensor technology; use this information to regulate the driving and braking forces acting on individual wheels to ensure superior driving stability and prevent the vehicle from swerving; employ radar to maintain distance from the vehicle in front; warn the drivers if they are deviating from the road lane or help them stay in lane in certain traffic situations. All these functions, which are already available on the market, are implemented without trained AI algorithms, but display a certain degree of environmental perception, autonomy and adaptivity which in this White Paper has been associated with AI.

- Furthermore, when defining AI, the White Paper states that "Algorithms may continue to learn when in use" (p. 16). In this regard, it should be reminded that re-training may be carried out, but at the current state of development of AI continued re-training ("when in use") cannot be applied to safety-critical functions. For these, in the automotive sector, the approval and homologation requirements continue to apply, such as those stipulated in the General Product Safety Directive, the approval and operational safety regulations, as well as the product monitoring obligations and technical monitoring requirements. This means that online retraining of AI for safety-critical functions cannot be done if correct functioning cannot be guaranteed, and instead requires offline training followed by human supervision to validate correctness. At the same time, online parameter optimisation of non-safety critical (non-high-risk) functions can be considered, provided that correctness of such parameter updates is proven.
- In our opinion, the expression "While AI-based products can act autonomously by perceiving their environment and without following a pre-determined set of instructions…" is misleading because even a trained algorithm is a deterministic piece of code, which at its core contains correlations/relationships defined during the training process.
- It must be although stressed that the machine learning algorithms used and deployed in vehicles today and within a long time can be considered as "narrow AI". Narrow AI is used to solve narrow tasks, e.g. lane recognition, vehicle recognition or traffic sign recognition just to name a few. These narrow AI algorithms are trained offline and tested rigorously before being deployed as fixed software in vehicles, just like any other software component in a vehicle. Therefore, just because an algorithm is machine learning based, it should not, by default, be classified as a high-risk AI. The technology for implementing a "wide AI" capable of solving the whole complex task of driving from point A to B is not technically possible today (nor in a long time/in the next future).
- If AI is not clearly defined, the risk arises that existing functions, services and products will be subsumed under the umbrella term of AI. Given that a satisfactory definition of AI that covers all situations and application realms might be difficult to be adopted, the proper usage of specific technical terms (e.g. machine learning) should be considered as a reasonable solution, especially when drafting legislation. Putting highly automated driving

on par with AI and directly deriving from this a need for additional regulation that goes beyond previous rules is deemed as very problematic, especially where extensive, directly applicable regulations already exist for product safety and vehicle homologation. The Commission therefore should have in mind that any new AI regulatory framework could lead to duplication, replication, or invalidation of existing certification requirements and regulatory frameworks currently in force in the automotive sector (such as Type Approval and UNECE regulation).

- Finally, it is essential to remember that the range of AI applications in the automotive industry is very wide. There is a need to distinguish between e.g. recommender systems (speed recognition, route preference etc), software that is developed with machine learning but released after type approval (e.g. via Software Updates process) and AI software that self-learn "online" during driving (the automotive industry does not foreseen the latter in any safety critical systems).

2.2 RISKS AND CONCERNS ARISING FROM AI

Dangers and risks are associated with AI, and these are amplified by how AI is portrayed in the media. These possible threats do not correspond to the actual applications and real capabilities of AI technologies currently available. In relation to this, the White Paper highlights that AI will only be accepted by the general public if people feel they can trust the technologies and if there is a human-centric approach, in line with fundamental rights and data privacy.

As societal acceptance is certainly a crucial element in the uptake of AI, vehicle manufacturers stress that a stronger focus should be put on the potential/benefits of AI in achieving greater productivity, product safety, performance, and objectivity. Unfortunately, the White Paper here overemphasizes the concerns and fears regarding AI and, based on this approach, derives a very broad risk filter and, ultimately, a need for strict regulation.

The White Paper describes risks as they would be caused by properties that are supposedly specific to AI technology, such as "opacity", "complexity", "autonomy" and "updatability". It is undisputed that increased reliance on these properties by systems can carry risks: for instance, as the existing legal standards could be more difficult to be applied or enforced or rendered completely unenforceable, the regulatory scope may no longer be appropriate to actual circumstances or adequately cover these, or the responsibilities of economic operators may no longer be adequately defined from a legal standpoint.

However, it must be pointed out that the properties and risks described are not uniquely applicable to AI systems but are likely to occur when using other technologies or any other algorithmic technique in equal manner. Consequently, it must be ensured that legal standards continue to be based on/are developed in compliance with the principle of technological neutrality. Furthermore, existing systems and technologies should not be subject to unnecessary tightening of requirements.

"Risks for fundamental rights, including personal data and privacy protection and non-discrimination"

AI algorithms and the underlying data are attributed with a possible discriminatory bias. A focus on human oversight of the automation of discriminatory processes by AI is recommended where automation is more difficult to understand. Depending on the risk assessment and the type of algorithmic decision-making, mechanisms may be conceived that either allow all algorithmic decision-making to be confirmed by humans or at least require ongoing monitoring of automated algorithmic decisions.

In addition, although the data on which an algorithm is based still plays a significant role, potential discrimination only occurs when the trained algorithm is applied. Any potential regulation should take this into account and not create major additional obstacles for the recording and quality of training data in itself, but should word the requirements in such a way that any potential discrimination in the selection of data and its use in training algorithms is sufficiently considered.

Furthermore, the extent to which earmarking and provenance of training data can in itself be problematic with regard to a possible bias should also be examined. As a minimum, international exchange and clearly regulated acceptance of data must make it possible to select representative training data sets that cannot be generated per se in a self-contained economic area such as the EU, because the groups in question are not sufficiently represented in the average population. Damage frequency and risk must not be confused here. For example, individuals' clothing, skin colour, ethnic background or culturally determined individual behaviour in road traffic should not lead to a higher risk of harm for that specific individual because they only rarely travel within the EU and are underrepresented in the training data gathered there.

It should also not be forgotten that, if a company is to operate globally, training data must be collected globally. This is an important condition that will determine, among other things, if European industry is going to be world leading. As all differences in the environment produce different results, European vehicle manufacturer's development processes must take care of all relevant cases/traffic scenarios the vehicle may encounter. Hence, the importance to stress the use of global data and the implementation of clear guidelines and processes for sharing data between countries, inside and outside the EU, otherwise the value of the data will get lost.

"Risks for safety and the effective functioning of the liability regime"

It is true that a lack of insight/controllability relating to AI (especially with third parties as intellectual property) in autonomous driving can bring about new issues regarding how to allocate product liability or enforce legal claims. However, the fact that autonomous driving leads to a significant increase in safety (no tiredness, drunk-driving, etc.) is not mentioned. Here, it should be clarified that AI has no value in itself and the use of AI is generally associated with better performance and also an increase in product quality and safety. Instead of unnecessarily associating AI with new, additional, or increased risks, based on speculation, vehicle manufacturers highlight the fact that

the risks involved in using AI may be difficult to describe and quantify, and that the comprehensibility of AI systems and the decisions they make or assist in making should be given particular consideration. At the same time though, it must be reminded that AI systems can be used to make biases measurable, much more so than of human decision making in similar situations.

2.3 RISK-BASED APPROACH

While a risk-based approach is desirable, it is important to prevent entire sectors from being placed under general suspicion, as each sector involves applications, products and services with different risk requirements. In every sector, risks must be assessed on a case-by-case basis. Hence, the first criterion outlined in the White Paper aiming at classifying whole sectors according their risk-level is deemed as inadequate, not suitable and limiting, for the following reasons:

- A list of "high-risk sectors" implies a continuous update of the sectors and the assessment of their risk-level, which seems not practical and could significantly hamper AI development and impair the use of AI for non-critical functions/services in the sectors listed. This is very likely to happen in the transport sector, where low-risk AI applications would be the majority.
- Moreover, problems regarding the differentiation of sectors may arise. Indeed, as digitisation increases, sectors overlap and are no longer distinct. This would trigger many questions as to whether AI applications in functions such as production, marketing or finance (non-high risk "sectors") are to be treated differently (and why) from the same functions serving, e.g., the transport industry ("high risk sector").
- Additionally, such an approach seems to ignore that, in many sectors certain products already go through validation processes to ensure among other elements their safety before being put on the market. For instance, activities are ongoing to integrate new technologies such as Autonomous Driving (AD) in the existing framework (UNECE level) governing the automotive sector.
- Overall, it is unclear why a risk classification based solely on the particular AI application would not be sufficient. Every AI system must be considered separately, otherwise the training outlay for the vast majority of uses that pose no risk/are low-risk would be unnecessarily increased because of general suspicion. This would complicate and impede the use of AI altogether and would significantly harm the competitiveness and employment situation in Europe.
- A classification or segmentation by "high-risk sectors" not only carries no benefit for any party, but it also impedes the location's innovative power and must therefore be rejected.

The focus should be on the AI applications and on a differentiation based on how critical its function is (e.g. "safety-relevant applications" vs. "non-safety-relevant applications"). Hence, the risk assessment and classification should focus solely on the AI application and its intended use. The

"Critical Use" proposed in the White Paper can be seen as appropriate but needs to be clearly and sensibly defined:

- The definition of high-risk must be clearer and narrower. It is important to avoid moderate-risk AI use cases being caught as high-risk and thus, being overregulated. This would hamper innovation and the use of AI in the automotive sector.
- Currently, it is unclear who can evaluate whether a specific application is high risk or not and based on which specific criteria. Factors such as the "safety-relevancy", the "autonomy of learning", the "autonomy of decision-making" and the "type of algorithmic model" could be considered as possible criteria to assess the risk category/critical use of AI applications.
- Finally, ACEA recalls that the existing ISO26262 reference guidelines (and more generally the IEC 61508 for the rest of the transport systems) already provides an automotive-specific risk-based approach for determining risk classes, and can be used as groundwork/cannot simply be ignored.

2.4 MANDATORY REQUIREMENTS FOR HIGH-RISK AI APPLICATIONS

Despite vehicle manufacturers supporting the view that current legislation may have some gaps when it comes to address certain risks deriving from emerging AI technologies, they do not see the need for any additional regulation. If developed, this should be applicable exclusively to high-risk AI applications.

Most importantly, vehicle manufacturers urge the Commission to ensure that any new regulatory AI framework does not duplicate/replicate or invalidate the existing certification requirements and regulatory frameworks already in force in the automotive sector (e.g. Type Approval[6]; UNECE work-streams[7]), and to carefully consider where the latter and/or industry standards[8] could be better instruments to address any possible gap. Moreover, any eventually deemed as necessary AI specific industry standards and certification requirements must be elaborated in such a way that flexibility for this relatively new technology is ensured.

Regarding the requirements for high-risk AI applications put forward in the White Paper, while particularly the requirements for "robustness and safety", "record-keeping" and "information to be provided" are already well adapted to the established processes in the automotive industry, it is not

[6] Alignment required especially with the new General Safety Regulation (EU) 2019/2144, Article 11 setting out "Specific requirements relating to automated vehicles and fully automated vehicles".

[7] Alignment required especially with legislation developed in the framework of the Working Party on Automated/Autonomous and Connected Vehicles – GRVA.

[8] Building upon e.g. **SOTIF 21448 – Standard for the Safety of the Intended Functionality; ISO/TC 241 WG6: Road Traffic Safety (RTS) – Guidance on safety ethical considerations for autonomous vehicles.**

clear, especially in the discussion of "human oversight", how the current duties of care regarding development, the use of the latest technology and product monitoring can be redefined or improved upon. Again, great care should be taken to address only new risks arising from AI, which have not been clearly covered in the White Paper yet.

Overall, several issues arise when looking at the requirements that should be applied to high-risk AI applications, and not all the requirements seem equally relevant to all types of AI applications. The degree of the fulfilment requirements for each item should correspond to the specific application purpose and context of AI. Rather than developing new legislation, the creation of industry standards in line with the current state of technology development is considered as more appropriate, at least for some specific topics. Wherever possible, these should be harmonized or built upon existing international initiatives.

"Training Data"

Just like specifications or software, data is fundamentally a development artefact, especially when it comes to data used to train algorithms or test functions, services or other products. They are subject to the same requirements for product liability, safety and reliability and should therefore always be considered in connection with their real-world use. The consistent application of these rules on data and algorithms created (trained) by this data must be ensured and may require clarification, particularly with regard to quality and verification mechanisms. New, additional requirements specifically for data would entail a considerable increase in complexity. In the White Paper, it remains unclear what the aim of this new regulation would be beyond that of existing legislation.

"Keeping of records and data"

A clarification regarding the documentation and retention obligation for development documentation including – in legitimate cases – the training data sets and training methods is *welcomed*. However, it is not clear to what extent there is a need to act regarding the automotive industry beyond the existing approval regulations and the areas already addressed in the relevant working groups at UNECE level (lodged under WP on Automated/Autonomous and Connected Vehicles - GRVA) for specific areas of application such as autonomous driving.

Further explanation is required regarding the following points (quotes from White Paper, p.19)

- *"in certain justified cases, the data sets themselves should be kept"*:
    - There is a need to spell out this idea. What is meant by "justified cases"? Such a requirement could hinder advances in edge computing, which is used to safeguard privacy. Edge computing makes it possible to have the AI on the end user's end-device. This way, privacy protection is increased since transfer of any personal data can be avoided. This is especially important if work is done with very sensitive data. If we have to track, store and review such data, it could be a major setback for GDPR

and the human right to privacy.

- *"documentation on the programming and training methodologies, processes and techniques used to build, test and validate the AI systems, including where relevant in respect of safety and avoiding bias that could lead to prohibited discrimination should be kept"*:
    - This would mean that a professional data discrimination management process would need to be established. However, it is not apparent why a new, additional anti-discrimination regulation specifically for data and AI algorithms is necessary. In fact, discrimination has been covered by law for a long time; there is no convincing argument in the White Paper that AI brings a new quality to this.

"Information provision"

The White Paper emphasizes the significance of adequate information for the "affected parties", but also sees the necessity to not create unnecessary obstacles. When legislation is drafted, it should consider including exceptions to the obligation to provide information under Article 13 GDPR when processing personal data by means of AI, similar to those already provided for under Article 14 (5) b GDPR, e.g. if and to the extent that providing the information proves impossible or would involve a disproportionate effort. Furthermore, it would also be useful to establish a certain standard or guideline as to what the information obligation would look like in AI systems.

Moreover, it is asked to ensure to provide information on the "expected level of accuracy in achieving the specified purpose". However, "accuracy" may not be the most meaningful metric and needs to be used with care. "Accuracy" is very use case specific, model specific and data related. Therefore, it's difficult to make a blanket statement of having a level of accuracy of e.g. 90%. Focus should be on the robustness of the IT system as a whole.

"Robustness and accuracy"

Robustness and accuracy requirements are already included in the automotive regulatory framework under the form of operational, performance requirements that the system needs to fulfil in order to be approved. Introducing such requirements only for AI (e.g. applied to an Automated Driving System) might introduce incompatibilities with the performance required to the entire ADS.

In addition, following requirements claim that (quoted from White Paper, p. 20):

- *"the AI systems are robust and accurate, or at least correctly reflect their level of accuracy, during all life cycle phases"*:
    - For systems which can learn continuously, this approach may be reconsidered. When placed on the market, a system may learn from the end user. Therefore, influence and transparency shift to the end user. A sensible alternative could be product monitoring requirements.

- *"AI systems can adequately deal with errors or inconsistencies during all life cycle phases."*:

- The term "life cycle phase" must be clearly defined to ensure a similar understanding of the requirement.

"Human Oversight"

Depending on the risk assessment and the type of algorithmic decision making, mechanisms may be conceived that either allow algorithmic decision-making to be confirmed by humans or at least require ongoing monitoring of automated algorithmic decisions. While a high degree of automation is intended in the development of autonomous driving (up to level 5), it must be stressed that contrary to White Paper interpretation of autonomous vehicles as per se defined as AI, self-developing AI in homologated systems does not and will not exist/be involved in vehicles for safety critical functions/services. The software that will be deployed (including AI-modules) is developed according to state-of-the-art standards and practices for functional safety and software development. It will be both analysed and tested rigorously before deployment. Once deployed, the software is frozen, no changes can be made unless the manufacturer deploys an update which also will have undergone the same process to ensure its quality and conformance with the intended functionality.

"Specific requirements for remote biometric identification"

As referenced in the White Paper, Biometric identification systems are already covered by the General Data Protection Regulation (GDPR). The processing of biometrics data for uniquely identifying purposes is forbidden pursuant to Article 9(1) of GDPR. Facial recognition can only take place if it falls under the scope of one of the exemptions listed in such article. However, since the use of biometric data with machine learning is technically rather new and application-wise only marginally explored, a careful hand-in-hand of regulatory and technical development is required. Using an ethical principle framework can serve as a preparatory approach for regulation. In the automotive industry, algorithms using machine learning with biometric data could be used for the limited purpose of intention prediction of other road users such as pedestrians and other drivers.

It would also be useful for this legal framework to clarify that not only research in the public interest is covered by the research privileges when processing personal data (cf. Article 5 (1) b (2nd half sentence) GDPR, Article 9 (2) j GDPR, Article 89 (2) GDPR) in the case of research involving AI. Recital 159 GDPR already stipulates that privately funded research also has recourse to these privileges. However, privileges for research interests in the private sector are sometimes denied when it comes to discussions on data protection law. For example, it is sometimes stated that privileges arising from Article 9 (1) j GDPR only apply to research in the public interest (Schiff, in: Ehrmann/Selmayr, General Data Protection Regulation, 2nd ed. 2018, Article 9, Recital 63), although this is not how the standard is grammatically worded.

3. ACEA'S POSITION ON PRODUCT SAFETY AND LIABILITY

Currently, from an automotive industry perspective, the EU Liability regime governing producers' liability and based on the Product Liability Directive (PLD) is effective and should be maintained as it allows vehicle manufacturers to act a "one-stop shop" when seeking liability of OEMs: in case of a defective product, they can call upon the supplier. The PLD provides legal certainty to consumers and allows for their effective compensation in such situations. Also, with regard to the next generations of automated vehicles, the automotive industry does not see such a need and considers the current liability regime as sufficient and balanced.

Vehicle manufacturers stress therefore that any need for a revision of the current EU legislative framework for liability to cover the risks engendered by certain AI applications as proposed in the White Paper must be clearly demonstrated. Furthermore, as the PLD is a horizontal regulation which covers many sectors, any assessment of the need to revise must be:

- cross-sectorial and cannot be carried out in a way that tackles just one aspect of one specific sector;
- done in an open form so as to involve the overall stakeholders' community.

In this regard, a "one-fits-all" solution as to liability legislation is therefore not possible. The various applications of AI, their grade of autonomy and their risk potential should be assessed for each group/category of AI. Only where after thorough review of the current liability system in relation to AI, such does not seem sufficient for certain AI applications to balance consumer protection and innovations, an adaptation of the current liability regime should be considered.

Vehicle manufacturers reinforce what has been stated in the JURI Committee draft report with recommendations to the European Commission on a civil liability regime for artificial intelligence, according to which "[…] If a person suffered harm caused by a defective AI-system, PLD should remain the legal means to seek compensation from the producer. If the harm was caused by an interfering third person, the existing fault-based liability system in the Member States offer (in most cases) a sufficient level of protection."

Beside the liability regime, other current regulations on product safety, copyright liability, etc. should not be changed fundamentally for AI. The principles of these legal areas have worked for many different technologies for a long time. The greatest possible degree of technology neutrality should be respected in the legal standards. Especially the third-party approval system and the manufacturer's product liability have worked well in the automotive area and there are no significant differences given the methods used to introduce AI. However, non-mandatory guidelines could be introduced in order to add specifications, e.g. in regard to the definition of: product – software – services.

Most importantly, vehicle manufacturers are concerned about Commission's opinion that the existing legislative framework could be changed to address the following risks and situations (see

p.14 White Paper):

"Limitations of scope of existing EU legislation"

Vehicle manufacturers are and will continue to be responsible for vehicle safety even when AI is included in the vehicle's software. Yet, if AI from third parties is integrated into vehicles, the software and services should be understood as products and the associated risks and responsibilities be passed on via relevant contracts. The existing laws are functional and effective. As a rule, every company has a significant interest in bringing correct and, above all, safe software onto the market.

It is not clear what the specific characteristics of AI software are, when compared to traditional software, for which new legislation would be necessary. Why are the laws on product safety not sufficient and why do new regulations need to be devised because of AI software?

"Changing functionality of AI systems"

The changing functionality of existing software in the automotive sector is already regulated and controlled. As AI systems are also approved under the same standards, it is unclear why further regulation is needed. Existing software also poses a risk, and this is already controlled. What changes so significantly through AI that a new regulatory framework is required?

In general, new functions already need to be approved, homologated, monitored and observed in operation. If updates become more frequent in future, a product – whether based on AI or not – may change over its life cycle in such a way that it no longer resembles its originally approved state. It is true that certain uses of AI speed up such updates or allow them to be carried out autonomously, which may entail a need to at least clarify existing regulations. Particularly for safety-critical functions in the automotive sector, far-reaching approval regulations, the General Product Safety Directive and the General Safety Regulation, which define the procedure for determining the approved status of a product and any deviations thereof, apply in all these cases. There is no discernible need for new regulation, especially with specific relation to AI.

ABOUT THE EU AUTOMOBILE INDUSTRY

- 13.8 million Europeans work in the auto industry (directly and indirectly), accounting for 6.1% of all EU jobs.
- 11.4% of EU manufacturing jobs – some 3.5 million – are in the automotive sector.
- Motor vehicles account for €428 billion in taxes in the EU15 countries alone.
- The automobile industry generates a trade surplus of €84.4 billion for the EU.
- The turnover generated by the auto industry represents over 7% of EU GDP.
- Investing €57.4 billion in R&D annually, the automotive sector is Europe's largest private contributor to innovation, accounting for 28% of total EU spending.

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