



**2018/2089(INI)**

6.9.2018

# **AMENDMENTS**

## **1 - 34**

**Draft opinion**  
**Emil Radev**  
(PE623.863v01-00)

Autonomous driving in European Transport  
(2018/2089(INI))



## Amendment 1

Daniel Buda

### Draft opinion

#### Recital A

##### *Draft opinion*

A. whereas the rapid pace of technology development, both in the transport industry and in the robotics and artificial intelligence sector, will have a significant impact on the economy and society; whereas driverless vehicles will significantly change our daily life, will determine the future of worldwide road transport and will also significantly reduce transport costs and improve road safety;

##### *Amendment*

A. whereas the rapid pace of technology development, both in the transport industry and in the robotics and artificial intelligence sector, will have a significant impact on the economy and society; whereas driverless vehicles will significantly change our daily life, will determine the future of worldwide road transport and will also significantly reduce transport costs and improve road safety; ***whereas the road transport sector could open the door to new services and modes and thus satisfy the growing demand for individual mobility and goods transport, and could even help revolutionise urban planning;***

Or. ro

## Amendment 2

Jiří Maštálka, Kostas Chrysogonos

### Draft opinion

#### Recital A

##### *Draft opinion*

A. whereas the rapid pace of technology development, both in the transport industry and in the robotics and artificial intelligence sector, will have a significant impact on the economy and society; whereas driverless vehicles will significantly change our daily life, will determine the future of worldwide road transport and will ***also significantly*** reduce transport costs ***and improve road safety;***

##### *Amendment*

A. whereas the rapid pace of technology development, both in the transport industry and in the robotics and artificial intelligence sector, will have a significant impact on the economy and society; whereas driverless vehicles will significantly change our daily life, will determine the future of worldwide road transport and will ***potentially*** reduce transport costs, ***increase mobility and***

*reduce the environmental impacts.*

Or. en

### **Amendment 3**

**Jean-Marie Cavada, António Marinho e Pinto**

#### **Draft opinion**

##### **Recital A**

###### *Draft opinion*

A. whereas the rapid pace of technology development, both in the transport industry and in the robotics and artificial intelligence sector, **will have** a significant impact on the economy and society; whereas driverless vehicles will significantly change our daily life, will determine the future of worldwide road transport and will also significantly reduce transport costs and improve road safety;

###### *Amendment*

A. whereas the rapid pace of technology development, both in the transport industry and in the robotics and artificial intelligence sector, **has** a significant impact on the economy and society; whereas driverless vehicles will significantly change our daily life, will determine the future of worldwide road transport and will also significantly reduce transport costs and improve road safety;

Or. en

### **Amendment 4**

**Jiří Maštálka, Kostas Chrysogonos**

#### **Draft opinion**

##### **Recital B**

###### *Draft opinion*

B. whereas the roll-out of autonomous vehicles, expected already in 2020, will bring considerable benefits, but also entails a variety of new risks, namely regarding civil liability, cybersecurity, intellectual property rights, data protection and data access issues; whereas it is of crucial importance to ensure that the EU legal framework is suitable to appropriately respond to those challenges;

###### *Amendment*

B. whereas the roll-out of autonomous vehicles, expected already in 2020, will bring considerable benefits, but also entails a variety of new risks, namely regarding **road traffic safety**, civil liability, cybersecurity, **insurance**, intellectual property rights, data protection and data access issues; **technical infrastructure and standardization measures, skilled labour supply**, whereas it is of crucial importance to ensure that the EU legal framework is

suitable to appropriately respond to those challenges; ***together with public awareness and acceptance***

Or. en

**Amendment 5**  
**Daniel Buda**

**Draft opinion**  
**Recital B**

*Draft opinion*

B. whereas the roll-out of autonomous vehicles, expected already in 2020, will bring considerable benefits, but also entails a variety of new risks, namely regarding civil liability, cybersecurity, intellectual property rights, data protection and data access issues; whereas it is of crucial importance to ensure that the EU legal framework is suitable to appropriately respond to those challenges;

*Amendment*

B. whereas the roll-out of autonomous vehicles, expected already in 2020, will bring considerable benefits, but also entails a variety of new risks, namely regarding civil liability, cybersecurity, intellectual property rights, data protection and data access issues; whereas it is ***impossible to predict the full extent of the long-term impact of autonomous mobility on jobs and the environment***; whereas it is of crucial importance to ensure that the EU legal framework is suitable to appropriately respond to those challenges;

Or. ro

**Amendment 6**  
**Jean-Marie Cavada, António Marinho e Pinto**

**Draft opinion**  
**Paragraph 1**

*Draft opinion*

1. Notes that the existing liability rules were not developed to deal with the challenges posed by the use of autonomous cars and stresses that there is growing evidence that the current regulatory framework will no longer be sufficient or

*Amendment*

1. Notes that the existing liability rules, ***such as Council Directive 85/374/EEC of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for***

adequate when faced with the new risks emerging from increasing vehicle automation, connectivity and complexity;

*defective products (the Product Liability Directive) and Directive 2009/103/EC of the European Parliament and of the Council of 16 September 2009 relating to insurance against civil liability in respect of the use of motor vehicles, and the enforcement of the obligation to insure against such liability (the Motor Insurance Directive), were not developed to deal with the challenges posed by the use of autonomous cars and stresses that there is growing evidence that the current regulatory framework will no longer be sufficient or adequate when faced with the new risks emerging from increasing vehicle automation, connectivity and complexity;*

Or. en

## **Amendment 7**

**Jiří Maštálka, Kostas Chrysogonos**

### **Draft opinion**

#### **Paragraph 1**

##### *Draft opinion*

1. Notes that the existing liability rules were not developed to deal with the challenges posed by the use of autonomous cars and stresses that there is growing evidence that the current regulatory framework will no longer be sufficient or adequate when faced with the new risks emerging from increasing vehicle automation, connectivity and complexity;

##### *Amendment*

1. Notes that the existing liability rules were not developed to deal with the challenges posed by the use of autonomous cars and stresses that there is growing evidence that the current regulatory framework ***especially with regards to liability, insurance policy, registration and protection of personal data*** will no longer be sufficient or adequate when faced with the new risks emerging from increasing vehicle automation, connectivity and complexity;

Or. en

## **Amendment 8**

**Kosma Zlotowski**

**Draft opinion  
Paragraph 1 a (new)**

*Draft opinion*

*Amendment*

***1a. Stresses that autonomous mobility presents enormous challenges in connection with the potential threat to privacy, in particular as a result of the strict need for geolocation and constant monitoring of the movements of these vehicles; points out that the protection of privacy and sensitive data generated by autonomous vehicles should be an absolute priority, and should be guaranteed in such a way that is in line with the requirements of Regulation (EU) 2016/679 of the European Parliament and of the Council;***

Or. pl

**Amendment 9  
Tiemo Wölken**

**Draft opinion  
Paragraph 2**

*Draft opinion*

*Amendment*

2. Takes the view that, in the light of the dynamic technological changes in the sector, there is a need to clarify who should bear the damage in the event of accidents caused by fully autonomous vehicles; calls therefore on the Commission to adapt the current EU legal framework and, if necessary, introduce new rules on the basis of which responsibility and liability are allocated;

2. Takes the view that, in the light of the dynamic technological changes in the sector, there is a need to clarify who should bear the damage in the event of accidents caused by fully autonomous vehicles; ***there is a particular need to examine whether the view that a very small proportion of all accidents has so far been attributable to technical factors would justify a liability shift to producer responsibility which, as a risk factor which is independent of negligence, can be linked simply to the risk posed by bringing a self-driving vehicle onto the market; and there is a***

*further need to examine whether specific road safety obligations on the part of the vehicle owner and instruction obligations applicable to the driver in each case might adequately compensate for this liability shift;* calls therefore on the Commission to adapt the current EU legal framework and, if necessary, introduce new rules on the basis of which responsibility and liability are allocated;

Or. de

**Amendment 10**  
**Emil Radev**

**Draft opinion**  
**Paragraph 2**

*Draft opinion*

2. Takes the view that, in the light of the dynamic technological changes in the sector, there is a need to clarify who should bear the damage in the event of accidents caused by fully autonomous vehicles; calls therefore on the Commission to adapt the current EU legal framework and, if necessary, introduce new rules on the basis of which responsibility and liability are allocated;

*Amendment*

2. Takes the view that, in the light of the dynamic technological changes in the sector, there is a need to clarify who should bear the damage in the event of accidents caused by fully autonomous vehicles, *and when the level of autonomy is such that the vehicle can operate either fully autonomously or be driven by a driver it must be established beyond a shadow of a doubt who the responsible party is in each specific scenario;* calls therefore on the Commission to adapt the current EU legal framework and, if necessary, introduce new rules on the basis of which responsibility and liability are allocated;

Or. bg

**Amendment 11**  
**Daniel Buda**

**Draft opinion**  
**Paragraph 2**

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*Draft opinion*

2. Takes the view that, in the light of the dynamic technological changes in the sector, there is a need to clarify who should bear the damage in the event of accidents caused by fully autonomous vehicles; calls therefore on the Commission to adapt the current EU legal framework and, if necessary, introduce new rules on the basis of which responsibility and liability are allocated;

*Amendment*

2. Takes the view that, in the light of the dynamic technological changes in the sector, there is a need to clarify who should bear the damage in the event of accidents caused by fully autonomous vehicles; calls therefore on the Commission to adapt the current EU legal framework and, if necessary, introduce new rules on the basis of which responsibility and liability are allocated; ***calls also on the Commission to assess and monitor the possibility of introducing additional EU instruments to keep pace with developments in artificial intelligence;***

Or. ro

**Amendment 12**

**Gilles Lebreton, Marie-Christine Boutonnet**

**Draft opinion**

**Paragraph 2**

*Draft opinion*

2. Takes the view that, in the light of the dynamic technological changes in the sector, there is a need to clarify who should bear the damage in the event of accidents caused by fully autonomous vehicles; calls therefore on the Commission to adapt the current EU legal framework and, ***if necessary***, introduce new rules on the basis of which responsibility and liability are allocated;

*Amendment*

2. Takes the view that, in the light of the dynamic technological changes in the sector, there is a need to clarify who should bear the damage in the event of accidents caused by fully autonomous vehicles; calls therefore on the Commission to adapt the current EU legal framework and introduce new rules on the basis of which responsibility and liability are allocated ***to the designers, manufacturers, owners or users of autonomous vehicles;***

Or. fr

**Amendment 13**

**Jean-Marie Cavada, António Marinho e Pinto**

**Draft opinion**  
**Paragraph 2**

*Draft opinion*

2. Takes the view that, in the light of the dynamic technological changes in the sector, there is a need to clarify who should bear the damage in the event of accidents caused by fully autonomous vehicles; calls therefore on the Commission to adapt the current EU legal framework and, if necessary, introduce new rules on the basis of which responsibility and liability are allocated;

*Amendment*

2. Takes the view that, in the light of the dynamic technological changes in the sector, there is a need to clarify who should bear the damage in the event of accidents caused by fully autonomous vehicles; calls therefore on the Commission to ***carry out a thorough assessment, to*** adapt the current EU legal framework and, if necessary, introduce new rules on the basis of which responsibility and liability are allocated;

Or. en

**Amendment 14**  
**Max Andersson**

**Draft opinion**  
**Paragraph 2 a (new)**

*Draft opinion*

*Amendment*

***2a. Underlines the risks pertaining to a growing mixed traffic among traditional and autonomous driving vehicles, thus calling for more on site tests in order to support future-proof Research & Development for public and private enterprises and bodies, but also to provide concrete data helping to duly adapt the civil liability rules.***

Or. en

**Amendment 15**  
**Gilles Lebreton, Marie-Christine Boutonnet**

**Draft opinion**  
**Paragraph 3**

*Draft opinion*

3. Underlines that a possible *solution to address the existing gaps and shortcomings* could be the setting up of a *no-fault* insurance framework for damage resulting from autonomous vehicles;

*Amendment*

3. Underlines that a possible *way to compensate victims* could be the setting up of a *mandatory* insurance framework for damage resulting from autonomous vehicles;

Or. fr

**Amendment 16**  
**Tiemo Wölken**

**Draft opinion**  
**Paragraph 3 a (new)**

*Draft opinion*

*Amendment*

**3a. Stresses that, according to the European Parliament resolution on Civil Law Rules on Robotics, there shall be no limitation of liability regarding the nature and extent of the damage to be compensated in order to guarantee adequate victim protection;**

Or. de

**Amendment 17**  
**Gilles Lebreton, Marie-Christine Boutonnet**

**Draft opinion**  
**Paragraph 4**

*Draft opinion*

*Amendment*

**4. Considers that an EU-level approach could facilitate the cross-border development of autonomous transport systems by avoiding fragmentation in the internal market;**

*deleted*

Or. fr

## Amendment 18

Jean-Marie Cavada, António Marinho e Pinto

### Draft opinion

#### Paragraph 4

##### *Draft opinion*

4. Considers that an EU-level approach *could facilitate* the cross-border development of autonomous transport systems *by avoiding* fragmentation in the internal market;

##### *Amendment*

4. Considers that an EU-level approach *will incentivise* the cross-border development of autonomous transport systems, *facilitate the competitiveness of the European Union's automotive industry, ensure a high level of consumer protection and avoid* fragmentation in the internal market;

Or. en

## Amendment 19

Kosma Złotowski

### Draft opinion

#### Paragraph 4 a (new)

##### *Draft opinion*

##### *Amendment*

*4a. Stresses the need to guarantee fair market access for independent automotive service providers in the area of the servicing and repair of autonomous vehicles; recalls that entities of this kind, including in particular part manufacturers and small workshops and service centres, are an important competitive element in the automotive market and have a positive impact on the availability and prices of these services;*

Or. pl

## Amendment 20

**Daniel Buda**

**Draft opinion**  
**Paragraph 4 a (new)**

*Draft opinion*

*Amendment*

**4a. Calls on the Commission to launch initiatives which address issues relating to changes that may arise in the demand for manpower; to that end invites the Commission to set out guidelines for the Member States on updating training and skills, with support from the European Social Fund and under other specific projects;**

Or. ro

**Amendment 21**  
**Gilles Lebreton, Marie-Christine Boutonnet**

**Draft opinion**  
**Paragraph 4 a (new)**

*Draft opinion*

*Amendment*

**4a. Takes the view that the idea of giving autonomous vehicles their own legal personality should be abandoned;**

Or. fr

**Amendment 22**  
**Kosma Złotowski**

**Draft opinion**  
**Paragraph 4 b (new)**

*Draft opinion*

*Amendment*

**4b. Regrets that the Commission has not sufficiently addressed the issue of guaranteeing independent digital and automotive service providers access to**

*data generated by autonomous mobility systems; recommends creating a precise legal framework and specifying which categories of information generated by the autonomous mobility sector will be treated as open data and made available in real-time mode, and which will be confidential;*

Or. pl

**Amendment 23**  
**Kosma Złotowski**

**Draft opinion**  
**Paragraph 4 c (new)**

*Draft opinion*

*Amendment*

*4c. Predicts that competition on the single market in the industry servicing autonomous vehicles could be put at risk if manufacturers make it difficult for independent repairers to access the systems installed in these vehicles; stresses that this market segment should be subject to the provisions of Commission Regulation 461/2010;*

Or. pl

**Amendment 24**  
**Kosma Złotowski**

**Draft opinion**  
**Paragraph 5**

*Draft opinion*

*Amendment*

5. Underlines the need to consider amendments to the Vienna Convention on Road Traffic aimed at facilitating the deployment of fully autonomous vehicles;

5. Underlines the need to consider amendments to the Vienna Convention on Road Traffic *and to the Vienna Convention on Road Signs and Signals* aimed at facilitating the deployment of

fully autonomous vehicles;

Or. pl

## Amendment 25

Jiří Maštálka, Kostas Chrysogonos

### Draft opinion

#### Paragraph 5

##### *Draft opinion*

5. Underlines the need to consider amendments to the Vienna Convention on Road Traffic *aimed at facilitating the deployment of fully autonomous vehicles;*

##### *Amendment*

5. Underlines the need to consider amendments to the *international legal frameworks related to prospectives of autonomous driving such as* Vienna Convention on Road Traffic *and Geneva Convention on Road traffic.*

Or. en

## Amendment 26

Tiemo Wölken

### Draft opinion

#### Paragraph 6

##### *Draft opinion*

6. Welcomes the Commission proposals to regulate the protection of vehicles against cyber-attacks and to equip autonomous cars with data recorders to help determine the cause of accidents; calls on the Commission to further clarify rules on the protection and sharing of the data collected by those vehicles and access to such data, while fully respecting the GDPR rules *and enabling* interoperability between systems;

##### *Amendment*

6. Welcomes the Commission proposals to regulate the protection of vehicles against cyber-attacks and to equip autonomous cars with data recorders to help determine the cause of accidents; calls on the Commission to further clarify rules on the protection and sharing of the data collected by those vehicles and access to such data, while fully respecting the GDPR rules; *there is a need to examine whether and how to guarantee that users can monitor and understand the access to the data, and to consider introducing block chain technology in this regard; also calls on the Commission to enable*

interoperability between systems ***and data portability in order to prevent lock-in effects and promote fair competition and innovation, thereby enabling users to choose among various service providers and ensuring that smaller vehicle providers do not lose their livelihoods;***

Or. de

**Amendment 27**  
**Max Andersson**

**Draft opinion**  
**Paragraph 6**

*Draft opinion*

6. Welcomes the Commission proposals to regulate the protection of vehicles against cyber-attacks and to equip autonomous cars with data recorders to help determine the cause of accidents; calls on the Commission to further clarify rules on the protection and sharing of the data collected by those vehicles and access to such data, while fully respecting the GDPR rules and enabling interoperability between systems;

*Amendment*

6. Welcomes the Commission proposals to regulate the protection of vehicles against cyber-attacks and to equip autonomous cars with data recorders to help determine the cause of accidents; calls on the Commission to further clarify rules on the protection and sharing of the data collected by those vehicles, ***including data that indirectly identify persons***, and access to such data, while fully respecting the GDPR rules and enabling interoperability between systems; ***considers that the owners of autonomous vehicles should have access to the data recording their driving behaviours, in accordance with the GDPR but also for the purpose of their right of defence when their liability is engaged.***

Or. en

**Amendment 28**  
**Gilles Lebreton, Marie-Christine Boutonnet**

**Draft opinion**  
**Paragraph 6**



*Draft opinion*

6. **Welcomes** the Commission proposals to regulate the protection of vehicles against cyber-attacks and to equip autonomous cars with data recorders to help determine the cause of accidents; calls on the Commission to further clarify rules on the protection and sharing of the data collected by those vehicles and access to such data, while fully respecting the GDPR rules and enabling interoperability between systems;

*Amendment*

6. **Notes with interest** the Commission proposals to regulate the protection of vehicles against cyber-attacks and to equip autonomous cars with data recorders to help determine the cause of accidents; calls on the Commission to further clarify rules on the protection and sharing of the data collected by those vehicles and access to such data, while fully respecting the GDPR rules and enabling interoperability between systems;

Or. fr

**Amendment 29**  
**Max Andersson**

**Draft opinion**  
**Paragraph 6 a (new)**

*Draft opinion*

*Amendment*

**6a. Highlights that the issue of setting standards and granting interoperability is key for future competition in the field of autonomous driving vehicles manufacturing; recommends the creation of independent trusted entities to retain the means necessary to provide services to the users of autonomous driving vehicles, such as maintenance and repairs, including software updates fixing malfunctions, vulnerabilities and security loopholes, especially in the case where such maintenance is no longer carried out by the original supplier; suggests creating an obligation for manufacturers to supply these independent trusted entities with comprehensive design instructions including source code, similar to the legal deposit of publications to a national library;**

**Amendment 30**  
**Daniel Buda**

**Draft opinion**  
**Paragraph 6 a (new)**

*Draft opinion*

*Amendment*

***6a. Welcomes the Commission's commitment to bringing forward a regulation on data recording instruments for automated vehicles as part of the review of the General Safety Regulation for motor vehicles with a view to clarifying who is deemed to be piloting the vehicle (driver or vehicle itself) in the event of an accident;***

Or. ro

**Amendment 31**  
**Max Andersson**

**Draft opinion**  
**Paragraph 7**

*Draft opinion*

*Amendment*

***7. Notes that similar questions in relation to intellectual property rights will arise in respect of artificial intelligence for the purpose of autonomous mobility as in other areas, such as proprietary rights to code, data and inventions created by the artificial intelligence itself; considers, however, that general solutions should be found to these questions.***

***deleted***

Or. en

**Amendment 32**

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**Tiemo Wölken**

**Draft opinion**

**Paragraph 7**

*Draft opinion*

7. Notes that similar questions in relation to intellectual property rights will arise in respect of artificial intelligence for the purpose of autonomous mobility as in other areas, such as proprietary rights to code, data and inventions created by the artificial intelligence itself; considers, however, that **general** solutions should be found to these questions.

*Amendment*

7. Notes that similar questions in relation to intellectual property rights **and corresponding usage rights** will arise in respect of artificial intelligence for the purpose of autonomous mobility as in other areas, such as proprietary **or usage** rights to code, data and inventions created by the artificial intelligence itself; considers, however, that solutions should be found to these questions **which are as general as possible**.

Or. de

**Amendment 33**

**Daniel Buda**

**Draft opinion**

**Paragraph 7 a (new)**

*Draft opinion*

*Amendment*

**7a. Draws attention to the need, when drafting the new legislative framework on the regulation of autonomous mobility, to ensure that any obstacle to furthering technological progress, research and innovation can be overcome.**

Or. ro

**Amendment 34**

**Max Andersson**

**Draft opinion**

**Paragraph 7 a (new)**

*Draft opinion*

*Amendment*

***7a. Notes that data generated during autonomous transport are automatically generated and are by nature not creative, thus making copyright protection or the right on databases inapplicable.***

Or. en