



**2015/2103(INL)**

26.10.2016

# **AMENDMENT 1 - 132**

**Draft report**  
**Mady Delvaux**  
(PE582.443v01-00)

with recommendations to the Commission on Civil Law Rules on Robotics  
(2015/2103(INL))



**Amendment 1**  
**Notis Marias**

**Motion for a resolution**  
**Citation 1 a (new)**

*Motion for a resolution*

*Amendment*

- *having regard to the Protocol (No 1) of the Treaty on the Functioning of the European Union on the role of national Parliaments in the European Union,*

Or. el

**Amendment 2**  
**Notis Marias**

**Motion for a resolution**  
**Citation 1 b (new)**

*Motion for a resolution*

*Amendment*

- *having regard to Protocol (No 2) of the Treaty on the Functioning of the European Union (TFEU) on the application of the principles of subsidiarity and proportionality,*

Or. el

**Amendment 3**  
**Therese Comodini Cachia**

**Motion for a resolution**  
**Citation 2 a (new)**

*Motion for a resolution*

*Amendment*

- *having regard to the Product Liability Directive 85/374/EEC ;*

Or. en

**Amendment 4**  
**Mady Delvaux**

**Motion for a resolution**  
**Citation 3**

*Motion for a resolution*

— having regard to the report of the Committee on Legal Affairs and the opinions of the Committee on Employment and Social Affairs, the Committee on the Environment, Public Health and Food Safety, the Committee on Industry, Research and Energy and the Committee on the Internal Market and Consumer Protection (A8-0000/2016),

*Amendment*

— having regard to the report of the Committee on Legal Affairs and the opinions of the Committee on Employment and Social Affairs, the Committee on the Environment, Public Health and Food Safety, the Committee on Industry, Research and Energy, ***the Committee on Transport and Tourism, the Committee on Civil Liberties, Justice and Home Affairs*** and the Committee on the Internal Market and Consumer Protection (A8-0000/2016),

Or. en

**Amendment 5**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital A**

*Motion for a resolution*

***A. whereas from Mary Shelley's Frankenstein's Monster to the classical myth of Pygmalion, through the story of Prague's Golem to the robot of Karel Čapek, who coined the word, people have fantasised about the possibility of building intelligent machines, more often than not androids with human features;***

*Amendment*

***deleted***

Or. el

**Amendment 6**  
**Marietje Schaake, Kaja Kallas, Matthijs van Miltenburg**

**Motion for a resolution**  
**Recital A**

*Motion for a resolution*

A. *whereas from Mary Shelley's Frankenstein's Monster to the classical myth of Pygmalion, through the story of Prague's Golem to the robot of Karel Čapek, who coined the word, people have fantasised about the possibility of building intelligent machines, more often than not androids with human features;*

*Amendment*

*deleted*

Or. en

**Amendment 7**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital A**

*Motion for a resolution*

A. whereas from Mary Shelley's Frankenstein's Monster to the classical myth of Pygmalion, through the story of Prague's Golem to the robot of Karel Čapek, who coined the word, people have fantasised about the possibility of building intelligent machines, more often than not androids with human features;

*Amendment*

A. whereas from Mary Shelley's Frankenstein's Monster to the classical myth of Pygmalion, through the story of Prague's Golem to the robot of Karel Čapek, who coined the word, people have fantasised about, *as well as feared*, the possibility of building intelligent machines, more often than not androids with human features;

Or. en

**Amendment 8.**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital B**

*Motion for a resolution*

B. whereas now that humankind stands on the threshold of an era when ever more sophisticated robots, bots, androids and other manifestations of artificial intelligence ("AI") seem poised to unleash a new *industrial* revolution, which is likely to leave no stratum of society untouched, it is vitally important for the legislature to consider all its implications;

*Amendment*

B. whereas now that humankind stands on the threshold of an era when ever more sophisticated robots, bots, androids and other manifestations of artificial intelligence ("AI") seem poised to unleash a new *technological* revolution, which is likely to leave no stratum of society or *professional class* untouched, it is vitally important for the legislature to consider all its implications *and contribute to preparation for that revolution*;

Or. el

**Amendment 9**  
**Daniel Buda**

**Motion for a resolution**  
**Recital B**

*Motion for a resolution*

B. whereas now that humankind stands on the threshold of an era when ever more sophisticated robots, bots, androids and other manifestations of artificial intelligence ("AI") seem poised to unleash a new industrial revolution, which is likely to leave no stratum of society untouched, it is vitally important for the legislature to consider all its implications;

*Amendment*

B. whereas now that humankind stands on the threshold of an era when ever more sophisticated robots, bots, androids and other manifestations of artificial intelligence ("AI") seem poised to unleash a new industrial revolution, *and especially on the economy as a whole*, which is likely to leave no stratum of society untouched, it is vitally important for the legislature to consider all its implications *and effects*;

Or. ro

**Amendment 10**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital B**

*Motion for a resolution*

B. whereas now that humankind stands on the threshold of an era when ever more sophisticated robots, bots, androids and other manifestations of artificial intelligence ("AI") ***seem poised to unleash*** a new industrial revolution, which is likely to leave no stratum of society untouched, it is vitally important for the legislature to ***consider*** all its implications;

*Amendment*

B. whereas now that humankind stands on the threshold of an era when ever more sophisticated robots, bots, androids and other manifestations of artificial intelligence ("AI") ***are unleashing*** a new industrial revolution, which is likely to leave no stratum of society untouched, it is vitally important for the legislature to ***start considering*** all its implications, ***without putting a full stop to innovation***;

Or. en

**Amendment 11**  
**Jean-Marie Cavada**

**Motion for a resolution**  
**Recital B**

*Motion for a resolution*

B. whereas now that humankind stands on the threshold of an era when ever more sophisticated robots, bots, androids and other manifestations of artificial intelligence ("AI") ***seem poised to unleash*** a new industrial revolution, which is likely to leave no stratum of society untouched, it is vitally important for the legislature to consider ***all*** its implications;

*Amendment*

B. whereas now that humankind stands on the threshold of an era when ever more sophisticated robots, bots, androids and other manifestations of artificial intelligence ("AI") ***seem poised to unleash*** a new industrial revolution, which is likely to leave no stratum of society untouched, it is vitally important for the legislature to consider its ***legal and ethical*** implications;

Or. fr

**Amendment 12**  
**Marietje Schaake, Kaja Kallas, Matthijs van Miltenburg**

**Motion for a resolution**  
**Recital B**

*Motion for a resolution*

B. whereas ***now that humankind***

*Amendment*

B. whereas ***the growing development***

*stands on the threshold of an era when ever more sophisticated robots, bots, androids and other manifestations of artificial intelligence ("AI") seem poised to unleash a new industrial revolution, which is likely to leave no stratum of society untouched, it is vitally important for the legislature to consider all its implications;*

*and use of artificial intelligence applications is increasingly reducing the marginal cost of producing and distributing goods and services, raising the need to comprehensively assess the implications of these developments on the EU's values and fundamental rights as well as on fundamental principles related to the rule of law and ethics;*

Or. en

### **Amendment 13**

**Therese Comodini Cachia, Michał Boni, Tadeusz Zwiefka**

#### **Motion for a resolution**

#### **Recital B a (new)**

*Motion for a resolution*

*Amendment*

*Ba. whereas there is a need to create a generally accepted definition of robot and AI that is flexible and is not hindering innovation;*

Or. en

### **Amendment 14**

**Therese Comodini Cachia, Michał Boni, Tadeusz Zwiefka**

#### **Motion for a resolution**

#### **Recital B b (new)**

*Motion for a resolution*

*Amendment*

*Bb. whereas according to the robotics sector researchers and innovators it might be too early to create a liability framework for robots and AI, adding that at this stage it could hinder innovation;*

Or. en



**Amendment 15**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital C**

*Motion for a resolution*

C. whereas between 2010 and 2014 the average increase in sales of robots stood at 17% per year and in 2014 sales rose by 29%, the highest year-on-year increase ever, with automotive parts suppliers and the electrical/electronics industry being the main drivers of the growth; whereas annual patent filings for robotics technology have tripled over the last decade;

*Amendment*

C. whereas between 2010 and 2014 the average increase in sales of robots stood at 17% per year and in 2014 sales rose by 29%, the highest year-on-year increase ever, with automotive parts suppliers and the electrical/electronics industry being the main drivers of the growth; whereas annual patent filings for robotics technology have tripled over the last decade ***due to the uncertain nature of research and development cycle outcomes***;

Or. en

**Amendment 16**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital C**

*Motion for a resolution*

C. whereas between 2010 and 2014 the average increase in sales of robots stood at 17% per year and in 2014 sales rose by 29%, the highest year-on-year increase ever, with automotive parts suppliers and the electrical/electronics industry being the main drivers of the growth; whereas annual patent filings for robotics technology have tripled over the last decade;

*Amendment*

C. whereas between 2010 and 2014 the average increase in sales of robots stood at 17 % per year and in 2014 sales rose by 29 %, the highest year-on-year increase ever, ***which is expected to be intensified even further***, with automotive parts suppliers and the electrical/electronics industry ***currently*** being the main drivers of the growth; whereas annual patent filings for robotics technology have tripled over the last decade;

Or. el

**Amendment 17**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital D**

*Motion for a resolution*

D. whereas in the short to medium term robotics and AI promise to bring benefits of efficiency and savings, not only in production and commerce, but also in areas such as transport, medical care, education *and farming*, while making it possible to avoid exposing humans to dangerous conditions, such as those faced when cleaning up toxically polluted sites; whereas in the longer term there is potential for virtually unbounded prosperity;

*Amendment*

D. whereas in the short to medium term robotics and AI promise to bring benefits of efficiency and savings, not only in production and commerce, but also in areas such as transport, medical care, *security*, education, *farming and armed forces*, while making it possible to avoid exposing humans to dangerous conditions, such as those faced when cleaning up toxically polluted sites; whereas in the longer term there is , *in theory, likely* potential for virtually unbounded prosperity;

Or. el

**Amendment 18**  
**Notis Marias**

**Motion for a resolution**  
**Recital D**

*Motion for a resolution*

D. whereas in the short to medium term robotics and AI promise to bring benefits of efficiency and savings, not only in production and commerce, but also in areas such as transport, medical care, education and farming, while making it possible to avoid exposing humans to dangerous conditions, such as those faced when cleaning up toxically polluted sites; *whereas in the longer term there is potential for virtually unbounded prosperity;*

*Amendment*

D. whereas in the short to medium term robotics and AI promise to bring benefits of efficiency and savings, not only in production and commerce, but also in areas such as transport, medical care, education and farming, while making it possible to avoid exposing humans to dangerous conditions, such as those faced when cleaning up toxically polluted sites;

Or. el

**Amendment 19**  
**Mady Delvaux**

**Motion for a resolution**  
**Recital D**

*Motion for a resolution*

D. whereas in the short to medium term robotics and AI promise to bring benefits of efficiency and savings, not only in production and commerce, but also in areas such as transport, medical care, education and farming, while making it possible to avoid exposing humans to dangerous conditions, such as those faced when cleaning up toxically polluted sites; ***whereas in the longer term there is potential for virtually unbounded prosperity;***

*Amendment*

D. whereas in the short to medium term robotics and AI promise to bring benefits of efficiency and savings, not only in production and commerce, but also in areas such as transport, medical care, education and farming, while making it possible to avoid exposing humans to dangerous conditions, such as those faced when cleaning up toxically polluted sites;

Or. en

**Amendment 20**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital D**

*Motion for a resolution*

D. whereas in the short to medium term robotics and AI ***promise to*** bring benefits of efficiency and savings, not only in production and commerce, but also in areas such as transport, medical care, education and farming, while making it possible to avoid exposing humans to dangerous conditions, such as those faced when cleaning up toxically polluted sites; ***whereas in the longer term there is potential for virtually unbounded prosperity;***

*Amendment*

D. whereas in the short to medium term robotics and AI ***may*** bring benefits of efficiency and savings, not only in production and commerce, but also in areas such as transport, medical care, ***rescue & safety***, education and farming, while making it possible to avoid exposing humans to dangerous conditions, such as those faced when cleaning up toxically polluted sites;

Or. en

**Amendment 21**  
**Therese Comodini Cachia**

**Motion for a resolution**  
**Recital D**

*Motion for a resolution*

D. whereas in the short to medium term robotics and AI promise to bring benefits of efficiency and savings, not only in production and commerce, but also in areas such as transport, medical care, education and farming, while making it possible to avoid exposing humans to dangerous conditions, such as *those faced* when cleaning up toxically polluted sites; whereas in the longer term there is potential for virtually unbounded prosperity;

*Amendment*

D. whereas in the short to medium term robotics and AI promise to bring benefits of efficiency and savings, not only in production and commerce, but also in areas such as transport, medical care, education and farming, while making it possible to avoid exposing humans to dangerous conditions, such as when cleaning up toxically polluted sites; whereas in the longer term there is potential for virtually unbounded prosperity;

Or. en

**Amendment 22**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital D a (new)**

*Motion for a resolution*

***Da. whereas in the long-term, the current trend leans towards developing smart and autonomous machines, with the capacity to think and make decisions independently, holds not only economic advantages but also a variety of concerns regarding their direct and indirect effects on society as a whole;***

*Amendment*

Or. en

**Amendment 23**  
**Marietje Schaake, Kaja Kallas, Matthijs van Miltenburg**

**Motion for a resolution**  
**Recital D a (new)**

*Motion for a resolution*

*Amendment*

***Da. whereas machine learning offers enormous economic and innovative benefits for society by vastly improving the ability to analyse data, while also raising challenges to ensure non-discrimination, due process, transparency and understandability in decision-making processes;***

Or. en

**Amendment 24**  
**Marietje Schaake, Matthijs van Miltenburg, Kaja Kallas**

**Motion for a resolution**  
**Recital D b (new)**

*Motion for a resolution*

*Amendment*

***Db. whereas similarly, assessments of economic shifts and the impact on employment as a result of robotics and machine learning need to be assessed;***

Or. en

**Amendment 25**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital E**

*Motion for a resolution*

*Amendment*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by

humans being taken over by robots, so raising concerns about the future of employment **and** the viability of social security systems if the current basis of taxation is maintained, creating the potential for increased inequality in the distribution of wealth and influence;

humans being taken over by robots **without fully replenishing the lost jobs**, so raising concerns about the future of employment the viability of social **welfare and** security systems **and the continued lag in pension contributions**, if the current basis of taxation is maintained, creating the potential for increased inequality in the distribution of wealth and influence, **while, for the preservation of social cohesion and prosperity, the likelihood of levying tax on the work performed by a robot or a fee for using and maintaining a robot should be examined in the context of funding the support and retraining of unemployed workers whose jobs have been reduced or eliminated;**

Or. el

## Amendment 26

Marietje Schaake, Matthijs van Miltenburg, Kaja Kallas

### Motion for a resolution

#### Recital E

#### *Motion for a resolution*

E. whereas ***at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of employment and the viability of social security systems if the current basis of taxation is maintained, creating the potential for increased inequality in the distribution of wealth and influence;***

#### *Amendment*

E. whereas ***the widespread use of robots might not automatically lead to job replacement, but lower skilled jobs in labour-intensive sectors are likely to be more vulnerable to automation; whereas this trend could bring production processes back to the EU; whereas research has demonstrated that employment grows significantly faster in occupations that use computers more; whereas the automation of jobs has the potential to liberate people from manual monotone labour allowing them to shift direction towards more creative and meaningful tasks; whereas automation requires governments to invest in education and other reforms in order to improve reallocations in the types of skills***

*that the workers of tomorrow will need;*

Or. en

## **Amendment 27**

**Mady Delvaux**

### **Motion for a resolution**

#### **Recital E**

##### *Motion for a resolution*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of employment and the viability of social security systems if the current basis of taxation is maintained, creating the potential for increased inequality in the distribution of wealth and influence;

##### *Amendment*

E. *whereas over the past 200 years employment figures had persistently increased due to the technological development; whereas the development of robotics and AI may have the potential of job creation;* whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of employment and the viability of social security systems if the current basis of taxation is maintained, creating the potential for increased inequality in the distribution of wealth and influence;

Or. en

## **Amendment 28**

**Jean-Marie Cavada**

### **Motion for a resolution**

#### **Recital E**

##### *Motion for a resolution*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, *so raising concerns about* the future of employment *and the viability of social security systems if the current basis of*

##### *Amendment*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, and a discussion *must be held on* the future of *research and development* and employment;

*taxation is maintained, creating the potential for increased inequality in the distribution of wealth and influence;*

Or. fr

**Amendment 29**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital E**

*Motion for a resolution*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of employment and the viability of social security systems *if the current basis of taxation is maintained*, creating the potential for increased inequality in the distribution of wealth and influence;

*Amendment*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of employment and the viability of social security systems, creating the potential for increased inequality in the distribution of wealth and influence; *whereas more analysis is needed on better alignment of job losses in one area and job creation in another through real-life scenario testing;*

Or. en

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

**Motion for a resolution**  
**Recital E**

*Motion for a resolution*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of employment and the viability of social security systems if the current basis of taxation is maintained, creating the

*Amendment*

E. whereas at the same time *the investments in innovation and* the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of employment *and retraining* and the viability of social security systems if the



potential for increased inequality in the distribution of wealth and influence;

current basis of taxation is maintained, creating the potential for increased inequality in *the hierarchy of social classes and* the distribution of wealth and influence;

Or. ro

### **Amendment 31**

**Laura Ferrara, Dario Tamburrano, Laura Agea, Isabella Adinolfi, Marco Zullo, Daniela Aiuto, Tiziana Beghin, Ignazio Corrao, Piernicola Pedicini, David Borrelli**

#### **Motion for a resolution**

##### **Recital E**

###### *Motion for a resolution*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of employment and the viability of social security systems if the current basis of taxation is maintained, creating the potential for increased inequality in the distribution of wealth and influence;

###### *Amendment*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans, *not only manual but also intellectual work*, being taken over by robots, so raising concerns about the future of employment and the viability of social security systems if the current basis of taxation is maintained, creating the potential for increased inequality in the distribution of wealth and influence;

Or. it

### **Amendment 32**

**Tadeusz Zwiefka, Christian Ehler, Michał Boni, Therese Comodini Cachia, Angelika Niebler**

#### **Motion for a resolution**

##### **Recital E**

###### *Motion for a resolution*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of

###### *Amendment*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of

employment *and the viability of social security systems if the current basis of taxation is maintained, creating the potential for increased inequality in the distribution of wealth and influence;*

employment; *notes that robotics technology has the potential to transform lives and work practices, raise efficiency and safety levels, provide enhanced level of services. Its impact will grow over time as will the interaction between robots and people;*

Or. en

### **Amendment 33**

**Ádám Kósa**

#### **Motion for a resolution**

##### **Recital E**

###### *Motion for a resolution*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of employment and the viability of social security systems if the current basis of taxation is maintained, creating the potential for increased inequality in the distribution of wealth and influence;

###### *Amendment*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of employment and the viability of social security systems if the current basis of taxation is maintained, creating the *undesirable* potential for increased inequality in the distribution of wealth and influence;

Or. hu

### **Amendment 34**

**Therese Comodini Cachia**

#### **Motion for a resolution**

##### **Recital E**

###### *Motion for a resolution*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of

###### *Amendment*

E. whereas at the same time the development of robotics and AI may result in a large part of the work now done by humans being taken over by robots, so raising concerns about the future of

employment and the viability of social security systems *if the current basis of taxation is maintained*, creating the potential for increased inequality in the distribution of wealth and influence;

employment and the viability of social security systems, creating the potential for increased inequality in the distribution of wealth and influence;

Or. en

### **Amendment 35**

**Tadeusz Zwiefka, Christian Ehler, Michał Boni, Therese Comodini Cachia, Angelika Niebler**

#### **Motion for a resolution**

##### **Recital E a (new)**

*Motion for a resolution*

*Amendment*

*Ea. whereas the development of Robotics and AI will definitely influence the landscape of the workplace what may create new liability concerns and eliminate others; whereas the legal responsibility need to be clarified from both business sight model, as well as the workers design pattern, in case emergency or problems occur;*

Or. en

### **Amendment 36**

**Laura Ferrara, Dario Tamburrano, Laura Agea, Isabella Adinolfi, Marco Zullo, Daniela Aiuto, Tiziana Beghin, Ignazio Corrao, Piernicola Pedicini, David Borrelli**

#### **Motion for a resolution**

##### **Recital E a (new)**

*Motion for a resolution*

*Amendment*

*Ea. whereas robotics and AI that can perform similar tasks to those performed by humans should be used mainly to support and boost the abilities of man, as opposed to trying to replace the human element completely;*

**Amendment 37**

**Notis Marias**

**Motion for a resolution**

**Recital E a (new)**

*Motion for a resolution*

*Amendment*

*Ea. whereas the widespread and increasingly frequent use of robotics and AI has unmistakably provoked a variety of reactions and objections;*

Or. el

**Amendment 38**

**Marietje Schaake, Matthijs van Miltenburg**

**Motion for a resolution**

**Recital E a (new)**

*Motion for a resolution*

*Amendment*

*Ea. whereas assessing the impact of the automation of jobs could benefit from a European debate on the desirability of a universal basic income;*

Or. en

**Amendment 39**

**Daniel Buda**

**Motion for a resolution**

**Recital F**

*Motion for a resolution*

*Amendment*

F. whereas the causes for concern also include physical safety, for example when a robot's code proves fallible, and the

F. whereas the causes for concern also include physical safety, for example when a robot's code proves fallible, and the

potential consequences of system failure or hacking of connected robots and robotic systems at a time when increasingly autonomous applications come into use or are impending whether it be in relation to cars and drones *or to care robots and robots used for maintaining public order and policing;*

potential consequences of system failure, *of manufacturing defects* or hacking of connected robots and robotic systems at a time when increasingly autonomous applications come into use or are impending whether it be in relation to cars and drones, to robots *used in the medical care production process, household* robots used for maintaining public order and policing , *or to robots used for public safety;*

Or. ro

#### **Amendment 40**

**Marietje Schaake, Matthijs van Miltenburg**

#### **Motion for a resolution**

##### **Recital F**

###### *Motion for a resolution*

F. whereas the *causes for concern also include physical safety, for example when a robot's code proves fallible, and the potential consequences of system failure or hacking of connected robots and robotic systems at a time when increasingly autonomous applications come into use or are impending whether it be in relation to cars and drones or to care robots and robots used for maintaining public order and policing;*

###### *Amendment*

F. whereas the *trend towards automation requires that those involved in the development and commercialisation of artificial intelligence applications build in security and ethics at the outset, thereby recognizing that they must be prepared to accept legal liability for the quality of the technology they produce*

Or. en

#### **Amendment 41**

**Angel Dzhambazki**

#### **Motion for a resolution**

##### **Recital F**

###### *Motion for a resolution*

F. whereas the causes for concern also

###### *Amendment*

F. whereas the causes for concern *are*

include physical safety, for example when a robot's code proves fallible, and the potential consequences of system failure or hacking of connected robots and robotic systems at a time when increasingly autonomous applications come into use or are impending whether it be in relation to cars and drones or to care robots and robots used for maintaining public order and policing;

*not only of moral and ethical nature but they* also include physical safety, for example when a robot's code proves fallible, and the potential consequences of system failure or hacking of connected robots and robotic systems at a time when increasingly autonomous applications come into use or are impending whether it be in relation to cars and drones or to care robots and robots used for maintaining public order and policing;

Or. en

**Amendment 42**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital F**

*Motion for a resolution*

F. whereas the causes for concern also include physical safety, for example when a robot's code proves fallible, and the potential consequences of system failure or hacking of connected robots and robotic systems at a time when increasingly autonomous applications come into use or are impending whether it be in relation to cars and drones or to care robots and robots used for maintaining public order and policing;

*Amendment*

F. whereas the causes for concern also include physical safety, for example when a robot's code proves fallible, and the potential consequences of system failure or hacking of connected robots and robotic systems at a time when increasingly autonomous *and self-sufficient* applications come into use or are impending whether it be in relation to cars and drones or to care robots and robots used for maintaining public order and policing;

Or. el

**Amendment 43**  
**Notis Marias**

**Motion for a resolution**  
**Recital F**

*Motion for a resolution*

F. whereas the causes for concern also include physical safety, for example when a robot's code proves fallible, and the potential consequences of system failure or hacking of connected robots and robotic systems at a time when increasingly autonomous applications come into use or are impending whether it be in relation to cars and drones or to care robots and robots used for maintaining public order and policing;

*Amendment*

F. whereas, *more specifically*, the causes for concern also include physical safety, for example when a robot's code proves fallible, and the potential consequences of system failure or hacking of connected robots and robotic systems at a time when increasingly autonomous applications come into use or are impending whether it be in relation to cars and drones or to care robots and robots used for maintaining public order and policing;

Or. el

**Amendment 44**  
**Jean-Marie Cavada**

**Motion for a resolution**  
**Recital F**

*Motion for a resolution*

F. whereas the causes for concern *also* include physical safety, for example when a robot's code proves fallible, and the potential consequences of system failure or hacking of connected robots and robotic systems at a time when increasingly autonomous applications come into use or are impending whether it be in relation to cars and drones or to care robots and robots used for maintaining public order and policing;

*Amendment*

F. whereas the causes for concern include physical safety, for example when a robot's code proves fallible, and the potential consequences of system failure or hacking of connected robots and robotic systems at a time when increasingly autonomous applications come into use or are impending whether it be in relation to cars and drones or to care robots and robots used for maintaining public order and policing;

Or. fr

**Amendment 45**  
**Notis Marias**

**Motion for a resolution**  
**Recital F a (new)**

*Fa. whereas the main concern is the alienation of human nature itself from the unconditional – beyond the financial gain that may be derived – development of robotics adopted, unfortunately, by most industry professionals; whereas internationally acknowledged scholars such as Steven Hawking have expressed objections regarding the development of technical intelligence;*

Or. el

**Amendment 46**

**Axel Voss**

**Motion for a resolution**

**Recital G**

*Motion for a resolution*

*G. whereas many basic questions of data protection have already become the subject of consideration in the general contexts of the internet and e-commerce, but whereas further aspects of data ownership and the protection of personal data and privacy might still need to be addressed, given that applications and appliances will communicate with each other and with databases without humans intervening or possibly without their even being aware of what is going on;*

*Amendment*

*G. whereas future legal regulations in the robotics sector and in the area of future possibilities for robotic communication (audio, visual, emotional) should be established in line with Regulation (EU) 2016/679 of the European Parliament and of the Council\* (Data Protection Regulation);*

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*Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119 4.5.2016, p. 1–88).*



**Amendment 47**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital G**

*Motion for a resolution*

G. whereas many basic questions of data protection have already become the subject of consideration in the general contexts of the internet and e-commerce, but whereas further aspects of data ownership and the protection of personal data and privacy might still need to be addressed, given that applications and appliances will communicate with each other and with databases without humans intervening or possibly without their even being aware of what is going on;

*Amendment*

G. whereas many basic questions of data protection **and fully respecting such data** have already become the subject of consideration in the general contexts of the internet and e-commerce, but whereas further aspects of data ownership **and possession** and the protection of personal data and privacy might still need to be addressed, given that applications and appliances will communicate with each other and with databases without humans intervening or possibly without their even being aware of what is going on;

Or. el

**Amendment 48**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital G**

*Motion for a resolution*

G. whereas many basic questions of data protection have already become the subject of consideration in the general contexts of the internet and e-commerce, but whereas further aspects of data ownership and the protection of personal data and privacy **might still need to be** addressed, given that applications and appliances will communicate with each other and with databases without humans intervening or possibly without their even

*Amendment*

G. whereas many basic questions of data protection have already become the subject of consideration in the general contexts of the internet and e-commerce, but whereas further aspects of data ownership and the protection of personal data and privacy **are still being** addressed, given that applications and appliances will communicate with each other and with databases without humans intervening or possibly without their even being aware of

being aware of *what is going on*;

*these "invisible" machine2machine communication processes*;

Or. en

**Amendment 49**  
**Kaja Kallas**

**Motion for a resolution**  
**Recital G**

*Motion for a resolution*

G. whereas *many basic questions of data protection have already become the subject of consideration in the general contexts of the internet and e-commerce*, but whereas further aspects of data ownership and the protection of personal data and privacy might still need to be addressed, given that applications and appliances *will communicate* with each other and with databases without *humans intervening or possibly without their even being aware of what is going on*;

*Amendment*

G. whereas *the General Data Protection Regulation sets out a legal framework to protect personal data*, but whereas further aspects of data ownership, *data access*, and the protection of personal data and privacy might still need to be addressed, given that *privacy concerns might still arise from* applications and appliances *communicating* with each other and with databases without *human intervention* ;

Or. en

**Amendment 50**  
**Daniel Buda**

**Motion for a resolution**  
**Recital G a (new)**

*Motion for a resolution*

*Ga. whereas the protection of intellectual property rights is recognised under Article 17(2) of the Charter of Fundamental Rights of the European Union and whereas it is necessary to come forward with a balanced approach to intellectual property rights when applied to hardware and software standards and codes that protect innovation and at the*

*Amendment*

*same time foster innovation; whereas criteria need to be drawn up for 'intellectual creation' of copyrightable works produced by computers or robots;*

Or. ro

#### **Amendment 51**

**Laura Ferrara, Dario Tamburrano, Laura Agea, Isabella Adinolfi, Marco Zullo, Daniela Aiuto, Tiziana Beghin, Ignazio Corrao, Piernicola Pedicini, David Borrelli**

#### **Motion for a resolution**

#### **Recital G a (new)**

*Motion for a resolution*

*Amendment*

*Ga. whereas the increasingly widespread use of social media and smartphones, which are constantly collecting and generating data, is causing the volume of data produced all over the world, so-called 'Big Data', to grow exponentially, and whereas 90% of the data in circulation today has been generated in the last two years;*

Or. it

#### **Amendment 52**

**Axel Voss**

#### **Motion for a resolution**

#### **Recital H**

*Motion for a resolution*

*Amendment*

*H. whereas the 'soft impacts' on human dignity may be difficult to estimate, but will still need to be considered if and when robots replace human care and companionship, and whereas questions of human dignity also can arise in the context of 'repairing' or enhancing human beings;*

*H. whereas the **inviolability** of human dignity **must be guaranteed at all times in any interaction between robots and humans**;*

Or. de

**Amendment 53**  
**Max Andersson**

**Motion for a resolution**  
**Recital H**

*Motion for a resolution*

H. whereas the 'soft impacts' on human dignity may be difficult to estimate, ***but will still need to be considered if and when robots replace human care and companionship, and whereas questions of human dignity also can arise*** in the context of 'repairing' or enhancing human beings;

*Amendment*

H. whereas the ***full range of*** 'soft impacts' on human dignity may be difficult to estimate, ***developments in robotics and artificial intelligence can and should be designed in a way that they preserve the dignity, autonomy and self-determination of the individual, especially in the fields of human care and companionship, and in the context of medical appliances,*** 'repairing' or enhancing human beings;

Or. en

**Amendment 54**  
**Notis Marias**

**Motion for a resolution**  
**Recital H**

*Motion for a resolution*

H. whereas the 'soft impacts' on human dignity may be difficult to estimate, but will still need to be considered if and when robots replace human care ***and companionship, and whereas questions of human dignity can also arise in the context of 'repairing' or enhancing human beings;***

*Amendment*

H. whereas the 'soft impacts' on human dignity may be difficult to estimate, but will still need to be considered if and when robots replace human care;

Or. el

**Amendment 55**  
**Kaja Kallas**

## Motion for a resolution

### Recital H

#### *Motion for a resolution*

H. whereas *the 'soft impacts' on human dignity* may be difficult to estimate, but will *still* need to be considered *if and when robots replace human care and companionship, and whereas questions of human dignity also can arise in the context of 'repairing' or enhancing human beings*;

#### *Amendment*

H. whereas *human dignity is complex to assess and* may be difficult to estimate, but will need to be *carefully* considered *within the context of* human care and companionship, *taking into account where robots could enhance capabilities and human dignity and where robots could have a negative impact, by impeding for instance access of robot users to essential capabilities* ;

Or. en

## Amendment 56

Ádám Kósa

## Motion for a resolution

### Recital H

#### *Motion for a resolution*

H. whereas the 'soft impacts' on human dignity may be difficult to estimate, but will still need to be considered if and when robots replace human care and companionship, and whereas questions of human dignity also can arise in the context of 'repairing' or enhancing human beings;

#### *Amendment*

H. whereas the 'soft impacts' on human dignity may be difficult to estimate, but will still need to be considered if and when robots replace human care and companionship, and whereas questions of human dignity also can arise in the context of 'repairing' or enhancing human beings *and human dignity must always remain priority*;

Or. hu

## Amendment 57

Daniel Buda

## Motion for a resolution

### Recital H

*Motion for a resolution*

H. whereas the 'soft impacts' on human dignity may be difficult to estimate, but will still need to be considered if and when robots replace human care and companionship, and whereas questions of human dignity also can arise in the context of 'repairing' or enhancing human beings;

*Amendment*

H. whereas the 'soft impacts' on human dignity may be difficult to estimate, but will still need to be considered if and when robots replace human care and companionship **or medical staff**, and whereas questions of human dignity also can arise in the context of 'repairing' or enhancing human beings;

Or. ro

**Amendment 58**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital H**

*Motion for a resolution*

H. whereas the 'soft impacts' on human dignity may be difficult to estimate, but will still need to be considered **if and when** robots **replace** human care and companionship, and whereas questions of human dignity also can arise in the context of 'repairing' or enhancing human beings;

*Amendment*

H. whereas the 'soft impacts' on human dignity may be difficult to estimate, but will still need to be considered **in order to avoid** robots **replacing all of** human care and companionship, and whereas questions of human dignity also can arise in the context of 'repairing' or enhancing human beings;

Or. en

**Amendment 59**  
**Jean-Marie Cavada**

**Motion for a resolution**  
**Recital H**

*Motion for a resolution*

H. whereas the 'soft impacts' on human dignity may be difficult to estimate, but will still need to be considered if and when robots replace human care and

*Amendment*

H. whereas the 'soft impacts' on human dignity may be difficult to estimate, but will still need to be considered if and when robots replace human care and

companionship, and ***whereas questions of human dignity also*** can arise in the context of 'repairing' or enhancing human beings;

companionship, and ***whereas these questions*** can ***also*** arise in the context of 'repairing' or enhancing human beings;

Or. fr

#### **Amendment 60**

**Marietje Schaake, Kaja Kallas, Matthijs van Miltenburg**

#### **Motion for a resolution**

##### **Recital I**

*Motion for a resolution*

***I. whereas ultimately there is a possibility that within the space of a few decades AI could surpass human intellectual capacity in a manner which, if not prepared for, could pose a challenge to humanity's capacity to control its own creation and, consequently, perhaps also to its capacity to be in charge of its own destiny and to ensure the survival of the species;***

*Amendment*

***deleted***

Or. en

#### **Amendment 61**

**Axel Voss**

#### **Motion for a resolution**

##### **Recital I**

*Motion for a resolution*

***I. whereas ultimately there is a possibility that within the space of a few decades AI could surpass human intellectual capacity in a manner which, if not prepared for, could pose a challenge to humanity's capacity to control its own creation and, consequently, perhaps also to its capacity to be in charge of its own destiny and to ensure the survival of the species;***

*Amendment*

***I. whereas ultimately there is a possibility that within the space of a few decades AI could surpass human intellectual capacity in a manner;***

**Amendment 62**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital I**

*Motion for a resolution*

I. whereas ultimately there is a possibility that within the space of a few decades AI could surpass human intellectual capacity in a manner which, if not *prepared for*, could pose a challenge to humanity's capacity to control its own creation and, consequently, perhaps also to its capacity to be in charge of its own destiny and to ensure the survival of the species;

*Amendment*

I. whereas ultimately there is a possibility that within the space of a few decades AI could surpass human intellectual capacity in a manner which, if not *closely monitored*, could *at some future point* pose a challenge to humanity's capacity to control its own creation and, consequently, perhaps also to its capacity to be in charge of its own destiny and to ensure the survival of the species;

Or. en

**Amendment 63**  
**Notis Marias**

**Motion for a resolution**  
**Recital I**

*Motion for a resolution*

I. whereas ultimately there is a possibility that within the space of a few decades AI could surpass human intellectual capacity in a manner which, if not prepared for, could pose a challenge to humanity's capacity to control its own creation and, consequently, perhaps also to its capacity to be in charge of its own destiny and to ensure the survival of the species;

*Amendment*

I. whereas ultimately there is a possibility that within the space of a few decades AI could surpass human intellectual capacity *to some degree* in a manner which, if not prepared for, could pose a challenge to humanity's capacity to control its own creation and, consequently, perhaps also to its capacity to be in charge of its own destiny and to ensure the survival of the species;

Or. el



**Amendment 64**  
**Mady Delvaux**

**Motion for a resolution**  
**Recital I**

*Motion for a resolution*

I. whereas ultimately there is a possibility that ***within the space of a few decades*** AI could surpass human intellectual capacity in a manner which, if not prepared for, could pose a challenge to humanity's capacity to control its own creation and, consequently, perhaps also to its capacity to be in charge of its own destiny and to ensure the survival of the species;

*Amendment*

I. whereas ultimately there is a possibility that ***in a long-term perspective*** AI could surpass human intellectual capacity in a manner which, if not prepared for, could pose a challenge to humanity's capacity to control its own creation and, consequently, perhaps also to its capacity to be in charge of its own destiny and to ensure the survival of the species;

Or. en

**Amendment 65**  
**Max Andersson**

**Motion for a resolution**  
**Recital I a (new)**

*Motion for a resolution*

***Ia. whereas further development and increased use of automated and algorithmic decision-making undoubtedly has an impact on the choices that a private person (such as a business or an internet user) and an administrative, judicial or other public authority take in rendering their final decision of a consumer, business or authoritative nature; whereas safeguards and the possibility of human control and verification need to be built into the process of automated and algorithmic decision-making;***

*Amendment*

Or. en

**Amendment 66**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital J**

*Motion for a resolution*

J. whereas several foreign jurisdictions, such as the US, Japan, China and South Korea, are considering, and to a certain extent have already taken, regulatory action with respect to robotics and AI, and whereas some Member States have also started to reflect on possible legislative changes in order to take account of emerging applications of such technologies;

*Amendment*

J. whereas several foreign jurisdictions, such as the US, Japan, China and South Korea, are considering, and to a certain extent have already taken, regulatory action with respect to robotics and AI, and whereas some Member States ***who play a significant role in the further development of advanced robotics and artificial intelligence*** have also started to reflect on possible legislative changes in order to take account of emerging applications of such technologies;

Or. en

**Amendment 67**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital J**

*Motion for a resolution*

J. whereas several foreign jurisdictions, such as the US, Japan, China and South Korea, are considering, and to a certain extent have already taken, regulatory action with respect to robotics and AI, and whereas some Member States have also started to reflect on possible legislative changes in order to take account of emerging applications of such technologies;

*Amendment*

J. whereas several foreign jurisdictions, such as the US, Japan, China and South Korea, are considering, and to a certain extent have already taken, regulatory action with respect to robotics and AI, and whereas some Member States have also started to reflect on possible legislative changes in order to take account of emerging applications of such technologies ***and determine the course of their evolution;***

Or. el

**Amendment 68**  
**Daniel Buda**

**Motion for a resolution**  
**Recital J**

*Motion for a resolution*

J. whereas several foreign jurisdictions, such as the US, Japan, China and South Korea, are considering, and to a certain extent have already taken, regulatory action with respect to robotics and AI, and whereas some Member States have also started to reflect on *some* possible legislative changes in order to take account of emerging applications of such technologies;

*Amendment*

J. whereas several foreign jurisdictions, such as the US, Japan, China and South Korea, are considering, and to a certain extent have already taken, regulatory action with respect to robotics and AI, and whereas some Member States have also started to reflect on *possibly drawing up legal standards or carrying out* legislative changes in order to take account of emerging applications of such technologies;

Or. ro

**Amendment 69**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital K**

*Motion for a resolution*

K. whereas *European* industry *could benefit from a coherent approach to regulation at European level, providing predictable and sufficiently clear conditions under which enterprises could develop applications and plan their business models on a European scale* while ensuring that the EU *and its* Member States maintain control over the regulatory standards to be set, so as not to be forced to adopt and live with standards set by others, *that is to say* the third states which are also at the forefront of the development of robotics and AI;

*Amendment*

K. whereas industry *throughout the* European *Union* could *benefit from more efficient cooperation* while ensuring that the EU Member States maintain control over the regulatory standards to be set, so as not to be forced to adopt and live with standards set by others, *neither within the EU nor from* the third states which are also at the forefront of the development of robotics and AI;

Or. en

**Amendment 70**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital K**

*Motion for a resolution*

K. whereas European industry could benefit from a coherent approach to regulation at European level, providing predictable and sufficiently clear conditions under which enterprises could develop applications and plan their **business** models on a European scale while ensuring that the EU and its Member States maintain control over the regulatory standards to be set, so as not to be forced to adopt and live with standards set by others, that is to say the third states which are also at the forefront of the development of robotics and AI;

*Amendment*

K. whereas European industry could benefit from a coherent approach to regulation at European level, providing predictable and sufficiently clear conditions under which enterprises could develop applications and plan their **medium- and macro-business** models on a European scale while ensuring that the EU and its Member States maintain control over the regulatory standards to be set, so as not to be forced to adopt and live with standards set by others, that is to say **on the basis of the priorities of economic capitals and industries** or the third states which are also at the forefront of the development of robotics and AI;

Or. el

**Amendment 71**  
**Daniel Buda**

**Motion for a resolution**  
**Recital K**

*Motion for a resolution*

K. whereas European industry could benefit from a coherent approach to regulation at European level, providing predictable and sufficiently clear conditions under which enterprises could develop applications and plan their business models on a European scale while ensuring that the EU and its Member States maintain control over the regulatory standards to be set, so as not to be forced to

*Amendment*

K. whereas European industry could benefit from a **suitable, efficient, coherent and transparent** approach to regulation at European level, providing **proper,** predictable and sufficiently clear conditions under which enterprises could develop applications and plan their business models on a European scale while ensuring that the EU and its Member States maintain control over the regulatory

adopt and live with standards set by others, that is to say the third states which are also at the forefront of the development of robotics and AI;

standards to be set, so as not to be forced to adopt and live with standards set by others, that is to say the third states which are also at the forefront of the development of robotics and AI;

Or. ro

**Amendment 72**  
**Kaja Kallas**

**Motion for a resolution**  
**Recital K**

*Motion for a resolution*

K. whereas European industry could benefit from a coherent approach to regulation at European level, providing predictable and sufficiently clear conditions under which enterprises could develop applications and plan their business models on a European scale while ensuring that the EU and its Member States maintain control over the regulatory standards to be set, so as not to be forced to adopt and live with standards set by others, that is to say the third states which are also at the forefront of the development of robotics and AI;

*Amendment*

K. whereas ***once technologies emerge and mature***, European industry could benefit from a coherent approach to regulation at European level, providing predictable and sufficiently clear conditions under which enterprises could develop applications and plan their business models on a European scale while ensuring that the EU and its Member States maintain control over the regulatory standards to be set, so as not to be forced to adopt and live with standards set by others, that is to say the third states which are also at the forefront of the development of robotics and AI;

Or. en

**Amendment 73**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital L**

*Motion for a resolution*

***L. whereas, until such time, if ever, that robots become or are made self-aware, Asimov's Laws<sup>1</sup> must be regarded***

*Amendment*

***deleted***

*as being directed at the designers, producers and operators of robots, since those laws cannot be converted into machine code;*

---

<sup>1</sup> *A robot may not injure a human being or, through inaction, allow a human being to come to harm. (2) A robot must obey the orders given it by human beings except where such orders would conflict with the First Law. (3) A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws (See Runabout, I. Asimov, 1943) and (0) A robot may not harm humanity, or, by inaction, allow humanity to come to harm.*

Or. el

#### **Amendment 74**

**Therese Comodini Cachia, Michał Boni**

#### **Motion for a resolution**

##### **Recital L**

###### *Motion for a resolution*

L. whereas, *until such time, if ever, that robots become or are made self-aware*, Asimov's Laws<sup>1</sup> must be regarded as being directed at the designers, producers and operators of robots, since those laws cannot be converted into machine code;

---

<sup>1</sup> A robot may not injure a human being or, through inaction, allow a human being to come to harm. (2) A robot must obey the orders given it by human beings except where such orders would conflict with the First Law. (3) A robot must protect its own existence as long as such protection does

###### *Amendment*

L. whereas Asimov's Laws must be regarded as being directed at the designers, producers and operators of robots, since those laws cannot be converted into machine code; *whereas the processes by which robots and AI are assigned built-in autonomy and the possibility of self-learning, should be subjected to Asimov's laws;*

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<sup>1</sup> A robot may not injure a human being or, through inaction, allow a human being to come to harm. (2) A robot must obey the orders given it by human beings except where such orders would conflict with the First Law. (3) A robot must protect its own existence as long as such protection does

not conflict with the First or Second Laws (See Runabout, I. Asimov, 1943) and (0) A robot may not harm humanity, or, by inaction, allow humanity to come to harm.

not conflict with the First or Second Laws (See Runabout, I. Asimov, 1943) and (0) A robot may not harm humanity, or, by inaction, allow humanity to come to harm.

Or. en

**Amendment 75**  
**Ádám Kósa**

**Motion for a resolution**  
**Recital M**

*Motion for a resolution*

M. whereas, *nevertheless*, a series of rules, governing in particular liability and ethics and reflecting the intrinsically European and humanistic values that characterise Europe's contribution to society, are necessary;

*Amendment*

M. whereas *cyber-physical systems (CPS) are systems which comprise networked computers, robots and artificial intelligence and which interact with an integrated, artificial environment, and certain elements of these systems can be worn on the human body or even implanted in the human body, their use raises far-reaching ethical, human rights and social-philosophical questions, particularly with regard to self-determination, personal integrity and data protection, therefore* a series of *strict* rules, governing in particular liability and ethics and reflecting the intrinsically European and humanistic values *and the basic principles set out in international and European human rights conventions* that characterise Europe's contribution to society, are necessary;

Or. hu

**Amendment 76**  
**Victor Negrescu**

**Motion for a resolution**  
**Recital M**

*Motion for a resolution*

M. whereas, nevertheless, a series of rules, governing in particular liability and ethics and reflecting the intrinsically European and humanistic values that characterise Europe's contribution to society, are necessary;

*Amendment*

M. whereas, nevertheless, a series of rules, governing in particular liability and ethics and reflecting the intrinsically European and humanistic values that characterise Europe's contribution to society, are necessary; ***whereas those rules must not affect the process of research, innovation and development in robotics;***

Or. ro

**Amendment 77**

**Marietje Schaake, Kaja Kallas, Matthijs van Miltenburg**

**Motion for a resolution**

**Recital M**

*Motion for a resolution*

M. whereas, ***nevertheless***, a series of rules, governing in particular liability ***and ethics and*** reflecting the intrinsically European and humanistic values that characterise Europe's contribution to society, ***are necessary***;

*Amendment*

M. whereas a series of rules, governing in particular liability, ***transparency and accountability, are useful***, reflecting the intrinsically European and ***universal*** humanistic values that characterise Europe's contribution to society;

Or. en

**Amendment 78**

**Daniel Buda**

**Motion for a resolution**

**Recital M**

*Motion for a resolution*

M. whereas, nevertheless, a series of rules, governing in particular liability and ethics and reflecting the intrinsically European and humanistic values that characterise Europe's contribution to society, are necessary;

*Amendment*

M. whereas, nevertheless, a series of ***efficient*** rules, governing in particular liability and ethics and reflecting the intrinsically European and humanistic values that characterise Europe's contribution to society, are necessary;



**Amendment 79**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital M**

*Motion for a resolution*

M. whereas, nevertheless, a series of rules, governing in particular liability and ethics and reflecting the intrinsically **European and** humanistic values that characterise **Europe's** contribution to society, are necessary;

*Amendment*

M. whereas, nevertheless, a series of rules, governing in particular liability and ethics and reflecting the intrinsically humanistic values that characterise **the European Union's** contribution to society, are necessary;

Or. en

**Amendment 80**  
**Therese Comodini Cachia**

**Motion for a resolution**  
**Recital M**

*Motion for a resolution*

M. whereas, nevertheless, a series of rules, governing in particular liability and ethics and reflecting the intrinsically European **and humanistic** values that characterise Europe's contribution to society, are necessary;

*Amendment*

M. whereas, nevertheless, a series of rules, governing in particular liability and ethics and reflecting the intrinsically European values that characterise Europe's contribution to society, are necessary;

Or. en

**Amendment 81**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital N**

*Motion for a resolution*

N. whereas the European Union could play an essential role in establishing basic ethical principles to be respected in the development, programming and use of robots and AI and in the incorporation of such principles into European regulations and codes of conduct, with the aim of shaping the technological revolution so that it serves humanity and so that the benefits of advanced robotics and AI are broadly shared, while as far as possible avoiding potential pitfalls;

*Amendment*

N. whereas the European Union could play an essential role in establishing basic ethical principles to be respected in the development, programming and use of robots and AI and in the incorporation of such principles into European regulations and codes of conduct, with the aim of shaping the technological revolution so that it serves humanity and so that the benefits of advanced robotics and AI are broadly shared, while as far as possible avoiding potential pitfalls *for the general population and well-governed and prosperous society and the risk of structural failures of the European Union in comparison with third countries*;

Or. el

**Amendment 82**

**Daniel Buda**

**Motion for a resolution**

**Recital N**

*Motion for a resolution*

N. whereas the European Union could play an essential role in establishing basic ethical principles to be respected in the development, programming and use of robots and AI and in the incorporation of such principles into European regulations and codes of conduct, with the aim of shaping the technological revolution so that it serves humanity and so that the benefits of advanced robotics and AI are broadly shared, while as far as possible avoiding potential pitfalls;

*Amendment*

N. whereas the European Union could play an essential role in establishing basic ethical principles to be respected in the *design*, development, programming and use of robots and AI and in the incorporation of such principles into European regulations and codes of conduct, with the aim of shaping the technological revolution so that it serves humanity and so that the benefits of advanced robotics and AI are broadly shared, while as far as possible avoiding potential pitfalls *and risks*;

Or. ro

## Amendment 83

Notis Marias

### Motion for a resolution

#### Recital N

##### *Motion for a resolution*

N. whereas the European Union **could** play an essential role in establishing basic ethical principles to be respected in the development, programming and use of robots and AI and in the incorporation of such principles into European regulations and codes of conduct, with the aim of shaping the technological revolution so that it serves humanity and so that the benefits of advanced robotics and AI are broadly shared, while as far as possible avoiding potential pitfalls;

##### *Amendment*

N. whereas the European Union **ought to** play an essential role in establishing basic ethical principles to be respected in the development, programming and use of robots and AI and in the incorporation of such principles into European regulations and codes of conduct, with the aim of shaping the technological revolution so that it serves humanity and so that the benefits of advanced robotics and AI are broadly shared, while as far as possible avoiding potential pitfalls **for humanity**;

Or. el

## Amendment 84

Angel Dzhambazki

### Motion for a resolution

#### Recital N

##### *Motion for a resolution*

N. whereas the European Union could play an essential role in establishing basic ethical principles to be respected in the development, programming and use of robots and AI and in the incorporation of such principles into **European** regulations and codes of conduct, with the aim of shaping the technological revolution so that it serves humanity and so that the benefits of advanced robotics and AI are broadly shared, while as far as possible avoiding potential pitfalls;

##### *Amendment*

N. whereas the European Union could play an essential role in establishing basic ethical principles to be respected in the development, programming and use of robots and AI and in the incorporation of such principles into **existing rules and** regulations and codes of conduct, with the aim of shaping the technological revolution so that it serves humanity and so that the benefits of advanced robotics and AI are broadly shared, while as far as possible avoiding potential pitfalls;

Or. en

**Amendment 85**  
**Notis Marias**

**Motion for a resolution**  
**Recital O**

*Motion for a resolution*

O. *whereas a gradualist, pragmatic cautious approach of the type advocated by Jean Monnet should be adopted for Europe<sup>2</sup>;*

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<sup>2</sup> *the Schuman Declaration (1950: "Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements which first create a de facto solidarity".*

*Amendment*

*deleted*

Or. el

**Amendment 86**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital O**

*Motion for a resolution*

O. *whereas a gradualist, pragmatic cautious approach of the type advocated by Jean Monnet<sup>2</sup> should be adopted for Europe;*

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<sup>2</sup> *the Schuman Declaration (1950: "Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements which first create a de facto solidarity."*

*Amendment*

O. *whereas a gradualist, pragmatic cautious approach of the type advocated by Jean Monnet<sup>2</sup> should be adopted for Europe **with the purpose of avoiding over-regulation at a too early stage and mandatory obligations for Member States;***

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<sup>2</sup> *the Schuman Declaration (1950: "Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements which first create a de facto solidarity."*

Or. en

## Amendment 87

Kaja Kallas

### Motion for a resolution

#### Recital O

##### *Motion for a resolution*

O. whereas a gradualist, pragmatic cautious approach of the type advocated by Jean Monnet<sup>2</sup> should be adopted for Europe;

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<sup>2</sup> the Schuman Declaration (1950): "Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements which first create a de facto solidarity."

##### *Amendment*

O. whereas a gradualist, pragmatic **and** cautious approach, of the type advocated by Jean Monnet,<sup>2</sup> should be adopted for Europe **with regard to any future initiatives on robotics and AI so as to ensure that we do not stifle innovation ; .**

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<sup>2</sup> the Schuman Declaration (1950): "Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements which first create a de facto solidarity."

Or. en

## Amendment 88

Daniel Buda

### Motion for a resolution

#### Recital O

##### *Motion for a resolution*

O. whereas a gradualist, pragmatic cautious approach of the type advocated by Jean Monnet should be adopted for Europe<sup>2</sup>;

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<sup>2</sup> the Schuman Declaration (1950): "Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements which first create a de facto solidarity."

##### *Amendment*

O. whereas **a clear and efficient, but also** gradualist, pragmatic cautious approach of the type advocated by Jean Monnet should be adopted for Europe<sup>2</sup>;

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<sup>2</sup> the Schuman Declaration (1950): "Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements which first create a de facto solidarity."

Or. ro

**Amendment 89.**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital O**

*Motion for a resolution*

O. whereas a gradualist, pragmatic cautious approach of the type advocated by Jean Monnet<sup>2</sup> should be adopted for Europe;

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<sup>2</sup> the Schuman Declaration (1950: “Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements which first create a de facto solidarity”).

*Amendment*

O. whereas a gradualist, pragmatic, cautious ***and weighted*** approach of the type advocated by Jean Monnet<sup>2</sup> should be adopted for Europe;

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<sup>2</sup> the Schuman Declaration (1950: “Europe will not be made all at once, or according to a single plan. It will be built through concrete achievements which first create a de facto solidarity”).

Or. el

**Amendment 90**  
**Kaja Kallas**

**Motion for a resolution**  
**Recital P**

*Motion for a resolution*

P. whereas it is appropriate, in view of the stage reached in the development of robotics and AI, to start with civil liability issues ***and to consider whether a strict liability approach based on who is best placed to insure is not the best starting point;***

*Amendment*

P. whereas it is appropriate, in view of the stage reached in the development of robotics and AI, to start with civil liability issues ;

Or. en

**Amendment 91**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital P**

*Motion for a resolution*

P. whereas it is appropriate, in view of the stage reached in the development of robotics and AI, to start **with** civil liability issues and to consider whether a strict liability approach based on who is best placed to insure is not the best starting point;

*Amendment*

P. whereas it is appropriate, in view of the stage reached in the development of robotics and AI, to start **discussing** civil liability issues and to consider whether a strict liability approach based on who is best placed to insure is not the best starting point;

Or. en

**Amendment 92**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital Q**

*Motion for a resolution*

Q. whereas, thanks to the impressive technological advances of the last decade, not only are today's robots able to perform activities which used to be typically and exclusively human, but the development of autonomous and cognitive features – e.g. the ability to learn from experience and take independent decisions – has made them more and more similar to agents that interact with their environment and are able to alter it significantly; whereas, in such a context, the legal responsibility arising from a robot's harmful action becomes a crucial issue;

*Amendment*

Q. whereas, thanks to the impressive technological advances of the last decade, not only are today's robots able to perform activities which used to be typically and exclusively human, but the development of autonomous and cognitive features – e.g. the ability to learn from experience and take independent decisions – has made them more and more similar to agents that interact with their environment and are able to alter it significantly; whereas, in such a context, the legal responsibility arising from a robot's harmful action becomes a crucial issue, **but such legal responsibility has yet to be strictly and properly defined**;

Or. el

**Amendment 93**  
**Max Andersson**

**Motion for a resolution**  
**Recital Q**

*Motion for a resolution*

Q. whereas, thanks to the impressive technological advances of the last decade, not only are today's robots able to perform activities which used to be typically and exclusively human, but the development of autonomous and cognitive features – e.g. the ability to learn from experience and take **independent** decisions – has made them more and more similar to agents that interact with their environment and are able to alter it significantly; whereas, in such a context, the legal responsibility arising **from** a robot's harmful action becomes a crucial issue;

*Amendment*

Q. whereas, thanks to the impressive technological advances of the last decade, not only are today's robots able to perform activities which used to be typically and exclusively human, but the development of **certain** autonomous and cognitive features – e.g. the ability to learn from experience and take **quasi-independent** decisions – has made them more and more similar to agents that interact with their environment and are able to alter it significantly; whereas, in such a context, the legal responsibility arising **through** a robot's harmful action becomes a crucial issue;

Or. en

**Amendment 94**  
**Therese Comodini Cachia**

**Motion for a resolution**  
**Recital Q**

*Motion for a resolution*

Q. whereas, thanks to the impressive technological advances of the last decade, not only are today's robots able to perform activities which used to be typically and exclusively human, but the development of autonomous and cognitive features – e.g. the ability to learn from experience and take independent decisions – has made them more and more similar to agents that interact with their environment and are able to **alter** it significantly; whereas, in such a context, the legal responsibility arising from a robot's harmful action becomes a crucial issue;

*Amendment*

Q. whereas, thanks to the impressive technological advances of the last decade, not only are today's robots able to perform activities which used to be typically and exclusively human, but the development of autonomous and cognitive features – e.g. the ability to learn from experience and take independent decisions – has made them more and more similar to agents that interact with their environment and are able to **contribute to** it significantly; whereas, in such a context, the legal responsibility arising from a robot's harmful action becomes a crucial issue;

Or. en



**Amendment 95**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital Q**

*Motion for a resolution*

Q. whereas, thanks to the impressive technological advances of the last decade, not only are today's robots able to perform activities which used to be typically and exclusively human, but the development of autonomous and cognitive features – e.g. the ability to learn from experience and take independent decisions – has made them more and more similar to agents that interact with their environment and are able to alter it significantly; whereas, in such a context, the legal responsibility arising from a robot's harmful action **becomes** a crucial issue;

*Amendment*

Q. whereas, thanks to the impressive technological advances of the last decade, not only are today's robots able to perform activities which used to be typically and exclusively human, but the development of autonomous and cognitive features – e.g. the ability to learn from experience and take independent decisions – has made them more and more similar to agents that interact with their environment and are able to alter it significantly; whereas, in such a context, the legal responsibility arising from a robot's harmful action **could become** a crucial issue;

Or. en

**Amendment 96**  
**Marietje Schaake, Kaja Kallas, Matthijs van Miltenburg**

**Motion for a resolution**  
**Recital Q**

*Motion for a resolution*

Q. whereas, thanks to the impressive technological advances of the last decade, not only are today's robots able to perform activities which used to be typically and exclusively human, but the development of autonomous and cognitive features – e.g. the ability to learn from experience and take independent decisions – has made them more and more similar to agents that interact with their environment and are able to alter it significantly; whereas, in such a context, the legal responsibility arising from a robot's harmful action becomes **a crucial** issue;

*Amendment*

Q. whereas, thanks to the impressive technological advances of the last decade, not only are today's robots able to perform activities which used to be typically and exclusively human, but the development of autonomous and cognitive features – e.g. the ability to learn from experience and take independent decisions – has made them more and more similar to agents that interact with their environment and are able to alter it significantly; whereas, in such a context, the legal responsibility arising from a robot's harmful action becomes **an important** issue;

**Amendment 97**  
**Max Andersson**

**Motion for a resolution**  
**Recital R**

*Motion for a resolution*

R. whereas **a robot's** autonomy **can be** defined as the ability to take decisions and implement them in the outside world, independently of external control or influence; whereas **this** autonomy is of a purely technological nature and its degree depends on how sophisticated a robot's interaction with its environment has been designed to be;

*Amendment*

R. whereas autonomy **is** defined as the ability to take decisions and implement them in the outside world, independently of external control or influence; whereas **the** autonomy **of a robot or of artificial intelligence** is of a purely technological nature and its degree depends on how sophisticated a robot's interaction with its environment has been designed to be;

**Amendment 98**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital R**

*Motion for a resolution*

R. whereas a robot's autonomy can be defined as the ability to take decisions and implement them in the outside world, independently of external control or influence; whereas this autonomy is of a purely technological nature and its degree depends on how sophisticated a robot's interaction with its environment has been designed to be;

*Amendment*

R. whereas a robot's autonomy can be defined as the ability to take decisions and implement them in the outside world, independently of external control or influence, **in theory**; whereas this autonomy is of a purely technological nature and its degree depends on how sophisticated a robot's interaction with its environment has been designed to be;

**Amendment 99**  
**Gilles Lebreton**

**Motion for a resolution**  
**Recital S**

*Motion for a resolution*

*Amendment*

*S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user, etc.); whereas this, in turn, makes the ordinary rules on liability insufficient and calls for new rules which focus on how a machine can be held – partly or entirely – responsible for its acts or omissions; whereas, as a consequence, it becomes more and more urgent to address the fundamental question of whether robots should possess a legal status;*

*deleted*

Or. fr

**Amendment 100**  
**Mady Delvaux**

**Motion for a resolution**  
**Recital S**

*Motion for a resolution*

*Amendment*

*S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user, etc.); whereas this, in turn, makes the ordinary rules on liability insufficient and calls for new rules which focus on how a machine can be held – partly or entirely – responsible for its acts or omissions; **whereas, as a consequence, it becomes more and more urgent to address the fundamental question of whether robots should possess a legal status;***

*S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the **operator, the** owner, the user, etc.); whereas this, in turn, makes the ordinary rules on liability insufficient and calls for new rules which focus on how a machine can be held – partly or entirely – responsible for its acts or omissions;*

Or. en

## Amendment 101

Therese Comodini Cachia, Tadeusz Zwiefka

### Motion for a resolution

#### Recital S

##### *Motion for a resolution*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user, etc.); whereas this, in turn, **makes** the ordinary rules on liability **insufficient and** calls for **new** rules **which focus on how a machine can be held – partly or entirely – responsible for its acts or omissions; whereas, as a consequence, it becomes more and more urgent to address the fundamental question of whether robots should possess a legal status;**

##### *Amendment*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user etc.); whereas this, in turn, **questions whether** the ordinary rules on liability **are sufficient or whether it** calls for **specific principles and** rules **to provide clarity on the legal liability of actors, their responsibility for acts and omissions of robots the cause of which cannot be traced back to a specific human agent and whether the acts or omissions of robots which have caused harm could have been foreseen and avoided;**

Or. en

## Amendment 102

Max Andersson

### Motion for a resolution

#### Recital S

##### *Motion for a resolution*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user, etc.); whereas this, in turn, **makes** the ordinary rules on liability **insufficient** and calls for new rules which focus on how **a machine can be held – partly or entirely – responsible for its acts or omissions; whereas, as a consequence, it becomes more and more urgent to address the**

##### *Amendment*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user, etc.); whereas this, in turn, **significantly challenges** the ordinary rules on liability and calls for **considering the need for** new rules which focus on how **autonomous systems and self-learning machines can be subject to adapted civil liability rules;**

*fundamental question of whether robots should possess a legal status;*

Or. en

**Amendment 103**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital S**

*Motion for a resolution*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user, etc.); whereas this, in turn, **makes** the ordinary rules on liability insufficient and calls for new rules which focus on how a machine can be held – partly or entirely – responsible for its acts or omissions; whereas, as a consequence, it becomes more and more urgent to address the fundamental question of whether robots should possess a legal status;

*Amendment*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user, etc.); whereas this, in turn, **may render** the ordinary rules on liability insufficient and **potentially** calls for new **and/or modified** rules which focus on how a machine can be held – partly or entirely – responsible for its acts or omissions; whereas, as a consequence, it becomes more and more urgent to address the fundamental question of whether robots should possess a legal status;

Or. en

**Amendment 104**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital S**

*Motion for a resolution*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user, etc.); whereas this, in turn, makes the ordinary rules on liability insufficient and calls for new rules which focus on how a

*Amendment*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user, etc.); whereas this, in turn, makes the ordinary rules on liability insufficient and calls for new rules which focus on how a

machine can be held – partly or entirely – responsible for its acts or omissions; whereas, as a consequence, it becomes more and more urgent to address the fundamental question of whether robots should possess a legal status;

machine can be held – partly or entirely – responsible for its acts or omissions; whereas, as a consequence, it becomes more and more urgent to address the *peculiar although* fundamental *ethical* question of whether robots should possess a legal status;

Or. el

## **Amendment 105**

**Ádám Kósa**

### **Motion for a resolution**

#### **Recital S**

##### *Motion for a resolution*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user, etc.); whereas this, in turn, *makes* the ordinary rules on liability insufficient and *calls* for new rules which focus on how a machine can be held – partly or entirely – responsible for its acts or omissions; whereas, as a consequence, it becomes more and more urgent to address the fundamental question of whether robots should possess a legal status;

##### *Amendment*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors (such as the manufacturer, the owner, the user, etc.); whereas this, in turn, *may* make the ordinary rules on liability insufficient and *may* call for new rules which focus on how a machine can be held – partly or entirely – responsible for its acts or omissions; whereas, as a consequence, it becomes more and more urgent to address the fundamental question of whether robots should possess a legal status;

Or. hu

## **Amendment 106**

**Kaja Kallas**

### **Motion for a resolution**

#### **Recital S**

##### *Motion for a resolution*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors

##### *Amendment*

S. whereas the more autonomous robots are, the less they can be considered simple tools in the hands of other actors

(such as the manufacturer, the owner, the user, etc.); whereas this, *in turn, makes* the ordinary rules on liability *insufficient and calls for new rules which focus on how a machine can be held – partly or entirely – responsible for its acts or omissions*; whereas, as a consequence, it *becomes more and more urgent to address the fundamental question of whether robots should possess a legal status*;

(such as the manufacturer, the owner, the user, etc.); whereas this *will require assessing whether* the ordinary rules on liability *are sufficient and whether more complex rules identifying all possible actors in the chain of responsibility should be established* ; whereas, as a consequence, it *might become necessary to assess whether a new legal category should be created for fully autonomous robots* ;

Or. en

## Amendment 107

Gilles Lebreton

### Motion for a resolution

#### Recital T

*Motion for a resolution*

*T. whereas, ultimately, robots' autonomy raises the question of their nature in the light of the existing legal categories – of whether they should be regarded as natural persons, legal persons, animals or objects – or whether a new category should be created, with its own specific features and implications as regards the attribution of rights and duties, including liability for damage;*

*Amendment*

*deleted*

Or. fr

## Amendment 108

Therese Comodini Cachia, Tadeusz Zwiefka

### Motion for a resolution

#### Recital T

*Motion for a resolution*

T. whereas, *ultimately*, robots' autonomy raises the question of their

*Amendment*

T. whereas robots' autonomy raises the question of their nature in the light of the

nature in the light of the existing legal categories – of whether they should be regarded as *natural persons*, legal persons, *animals* or objects – or whether a new category should be created, with its own *specific features and implications as regards the attribution of rights and duties, including liability for damage*;

existing legal categories – of whether they should be regarded as legal persons or objects – or whether a new category should be created, with its own *characteristics at law*;

Or. en

## **Amendment 109** **Max Andersson**

### **Motion for a resolution** **Recital T**

#### *Motion for a resolution*

T. whereas, ultimately, robots' autonomy raises the question of their nature in the light of the existing legal categories – of whether they should be regarded as natural persons, legal persons, animals or objects – or whether a new *category* should be created, with its own specific features and implications as regards the attribution of rights and duties, including liability for damage;

#### *Amendment*

T. whereas *automation blurs the lines between legal subjects and objects, and* ultimately, robots' autonomy raises the question of their nature in the light of the existing legal categories – of whether they should be regarded as natural persons, legal persons, animals or objects – or whether a new *legal status* should be created, with its own specific features and implications as regards the attribution of rights and duties, including liability for damage;

Or. en

## **Amendment 110** **Daniel Buda**

### **Motion for a resolution** **Recital T**

#### *Motion for a resolution*

T. whereas, ultimately, robots' autonomy raises the question of their nature in the light of the existing legal categories – of whether they should be

#### *Amendment*

T. whereas, ultimately, robots' autonomy raises the question of *identifying and clarifying* their nature in the light of the existing legal categories – of whether



regarded as natural persons, legal persons, animals or objects – or whether a new category should be created, with its own specific features and implications as regards the attribution of rights and duties, including liability for damage;

they should be regarded as natural persons, legal persons, animals or objects – or whether a new category should be created, with its own specific features and implications as regards the attribution of rights and duties, including liability for damage;

Or. ro

**Amendment 111**  
**Notis Marias**

**Motion for a resolution**  
**Recital T**

*Motion for a resolution*

T. whereas, ultimately, robots' autonomy raises the question of their nature in the light of the existing legal categories – of whether they should be regarded as *natural persons*, legal persons, *animals* or objects – or whether a new category should be created, with its own specific features and implications as regards the attribution of rights and duties, including liability for damage;

*Amendment*

T. whereas, ultimately, robots' autonomy raises the question of their nature in the light of the existing legal categories – of whether they should be regarded as legal persons or objects – or whether a new category should be created, with its own specific features and implications as regards the attribution of rights and duties, including liability for damage;

Or. el

**Amendment 112**  
**Marietje Schaake, Matthijs van Miltenburg**

**Motion for a resolution**  
**Recital T**

*Motion for a resolution*

T. whereas, ultimately, robots' autonomy raises the question of their nature in the light of the existing legal categories – of whether they should be regarded as natural persons, legal persons, *animals* or objects – or whether a new

*Amendment*

T. whereas, ultimately, robots' autonomy raises the question of their nature in the light of the existing legal categories – of whether they should be regarded as natural persons, legal persons, or objects – or whether a new category

category should be created, with its own specific features and implications as regards the attribution of rights and duties, including liability for damage;

should be created, with its own specific features and implications as regards the attribution of rights and duties, including liability for damage;

Or. en

**Amendment 113**  
**Max Andersson**

**Motion for a resolution**  
**Recital T a (new)**

*Motion for a resolution*

*Amendment*

***Ta. whereas it is unclear by which responsibility scheme distributed autonomous organisations (DAOs), organisations run by rules encoded in computer programmes, would abide under the law, while such legal uncertainty can significantly impact research, innovation, industrial development and consumer protection;***

Or. en

**Amendment 114**  
**Angel Dzhambazki**

**Motion for a resolution**  
**Recital U**

*Motion for a resolution*

*Amendment*

U. whereas under the current legal framework robots **cannot** be held liable per se for acts or omissions that cause damage to third parties; whereas the existing rules on liability cover cases where the cause of the robot's act or omission can be traced back to a specific human agent such as the manufacturer, the owner or the user and where that agent could have foreseen and avoided the robot's harmful behaviour;

U. whereas under the current legal framework, **complex** robots **may not** be held liable per se for acts or omissions that cause damage to third parties, **as they do not meet the criteria for existing legal provisions**; whereas the existing rules on liability cover cases where the cause of the robot's act or omission can be traced back to a specific human agent such as the manufacturer, the owner or the user and

whereas, in addition, manufacturers, owners or users could be held strictly liable for acts or omissions of a robot if, for example, the robot were categorised as a dangerous object or if it fell within product liability rules;

where that agent could have foreseen and avoided the robot's harmful behaviour; whereas, in addition, manufacturers, owners or users could be held strictly liable for acts or omissions of a robot if, for example, the robot were categorised as a dangerous object or if it fell within product liability rules; ***notes however, the importance of legal clarity and that a one-size-fits-all approach should in any case be avoided***

Or. en

**Amendment 115**  
**Therese Comodini Cachia**

**Motion for a resolution**  
**Recital U**

*Motion for a resolution*

U. whereas under the current legal framework robots cannot be held liable per se for acts or omissions that cause damage to third parties; whereas the existing rules on liability cover cases where the cause of the robot's act or omission can be traced back to a specific human agent such as the manufacturer, the owner or the user and where that agent could have foreseen and avoided the robot's harmful behaviour; whereas, in addition, manufacturers, owners or users could be held strictly liable for acts or omissions of a robot if, ***for example, the robot were categorised as a dangerous object or if*** it fell within product liability rules;

*Amendment*

U. whereas under the current legal framework robots cannot be held liable per se for acts or omissions that cause damage to third parties; whereas the existing rules on liability cover cases where the cause of the robot's act or omission can be traced back to a specific human agent such as the manufacturer, the owner or the user and where that agent could have foreseen and avoided the robot's harmful behaviour; whereas, in addition, manufacturers, owners or users could be held strictly liable for acts or omissions of a robot if it fell within product liability rules;

Or. en

**Amendment 116**  
**Mady Delvaux**

## Motion for a resolution

### Recital U

#### *Motion for a resolution*

U. whereas under the current legal framework robots cannot be held liable per se for acts or omissions that cause damage to third parties; whereas the existing rules on liability cover cases where the cause of the robot's act or omission can be traced back to a specific human agent such as the manufacturer, the owner or the user and where that agent could have foreseen and avoided the robot's harmful behaviour; whereas, in addition, manufacturers, owners or users could be held strictly liable for acts or omissions of a robot if, for example, the robot were categorised as a dangerous object or if it fell within product liability rules;

#### *Amendment*

U. whereas under the current legal framework robots cannot be held liable per se for acts or omissions that cause damage to third parties; whereas the existing rules on liability cover cases where the cause of the robot's act or omission can be traced back to a specific human agent such as the manufacturer, the ***operator, the*** owner or the user and where that agent could have foreseen and avoided the robot's harmful behaviour; whereas, in addition, manufacturers, ***operators,*** owners or users could be held strictly liable for acts or omissions of a robot if, for example, the robot were categorised as a dangerous object or if it fell within product liability rules;

Or. en

## Amendment 117

Kaja Kallas

## Motion for a resolution

### Recital U

#### *Motion for a resolution*

U. whereas under the current legal framework robots cannot be held liable per se for acts or omissions that cause damage to third parties; whereas the existing rules on liability cover cases where the cause of the robot's act or omission can be traced back to a specific human agent such as the manufacturer, the owner or the user and where that agent could have foreseen and avoided the robot's harmful behaviour; whereas, in addition, manufacturers, owners or users could be held ***strictly*** liable for acts or omissions of a robot if, for example, the robot were categorised as a

#### *Amendment*

U. whereas under the current legal framework robots cannot be held liable per se for acts or omissions that cause damage to third parties; whereas the existing rules on liability cover cases where the cause of the robot's act or omission can be traced back to a specific human agent such as the manufacturer, the owner or the user and where that agent could have foreseen and avoided the robot's harmful behaviour; whereas, in addition, manufacturers, owners or users could be held liable for acts or omissions of a robot if, for example, the robot were categorised as a dangerous

dangerous object or if it fell within product liability rules;

object or if it fell within product liability rules;

Or. en

### **Amendment 118**

**Therese Comodini Cachia, Michał Boni, Tadeusz Zwiefka**

#### **Motion for a resolution**

#### **Paragraph U a (new)**

*Motion for a resolution*

*Amendment*

***Ua. whereas according to the current legal framework product liability - where the producer of a product is liable for a malfunction- and rules governing liability for harmful actions -where the user of a product is liable for a behaviour that leads to harm- apply to damages caused by robots or AI;***

Or. en

### **Amendment 119**

**Gilles Lebreton**

#### **Motion for a resolution**

#### **Recital V**

*Motion for a resolution*

*Amendment*

***V. whereas in the scenario where a robot **can** take autonomous decisions, **the traditional rules will not suffice to activate a robot's liability, since they would not make it possible to identify the party responsible for providing compensation and to require this party to make good the damage it has** caused;***

***V. whereas in the scenario where a robot **could** take autonomous decisions, **the humans responsible for any damage caused as a result of the decisions taken should be clearly specified;*****

Or. fr

## Amendment 120

Daniel Buda

### Motion for a resolution

#### Recital V

##### *Motion for a resolution*

V. whereas in the scenario where a robot can take autonomous decisions, the traditional rules will not suffice to activate a robot's liability, since they would not make it possible to identify the party responsible for providing compensation and to require this party to make good the damage it has caused;

##### *Amendment*

V. whereas in the scenario where a robot can take autonomous decisions, the traditional rules *in force* will not suffice to activate a robot's liability, since, *among other issues*, they would not make it possible to identify the party responsible for providing compensation and to require this party to make good the damage it has caused;

Or. ro

## Amendment 121

Eleftherios Synadinos

### Motion for a resolution

#### Recital V

##### *Motion for a resolution*

V. whereas in the scenario where a robot can take autonomous decisions, the traditional rules will not suffice to activate a robot's liability, since they would not make it possible to identify the party responsible for providing compensation and to require this party to make good the damage it has caused;

##### *Amendment*

V. whereas in the scenario where a robot can take autonomous decisions, the traditional rules will not suffice to activate a robot's liability, since they would not make it possible to identify the party responsible, *a human factor*, for providing compensation and to require this party to make good the damage it has caused;

Or. el

## Amendment 122

Tadeusz Zwiefka, Christian Ehler, Michał Boni, Angelika Niebler

### Motion for a resolution

#### Recital V

*Motion for a resolution*

V. whereas in the scenario where a robot can take autonomous decisions, the traditional rules ***will not suffice to activate a robot's liability, since they would*** not make it possible to identify the party responsible for providing compensation and to require this party to make good the damage ***it*** has caused;

*Amendment*

V. whereas in the scenario where a robot can take autonomous decisions, the traditional rules ***may*** not make it possible to identify the party responsible for providing compensation and to require this party to make good the damage ***the robot*** has caused;

Or. en

**Amendment 123**

**Therese Comodini Cachia**

**Motion for a resolution**

**Recital V**

*Motion for a resolution*

V. whereas in the scenario where a robot can take autonomous decisions, the traditional rules ***will*** not suffice to activate ***a robot's*** liability, since they would not make it possible to identify the party responsible for providing compensation and to require this party to make good the damage it has caused;

*Amendment*

V. whereas in the scenario where a robot can take autonomous decisions, the traditional rules ***may*** not suffice to activate ***legal*** liability, since they would not make it possible to identify the party responsible for providing compensation and to require this party to make good the damage it has caused;

Or. en

**Amendment 124**

**Daniel Buda**

**Motion for a resolution**

**Recital X**

*Motion for a resolution*

X. whereas the shortcomings of the current legal framework are apparent in the area of contractual liability insofar as machines designed to choose their

*Amendment*

X. whereas the shortcomings of the current legal framework are ***also*** apparent in the area of contractual liability insofar as machines designed to choose their

counterparts, negotiate contractual terms, conclude contracts and decide whether and how to implement them make the traditional rules inapplicable, which highlights the need for new, *more* up-to-date ones;

counterparts, negotiate contractual terms, conclude contracts and decide whether and how to implement them make the traditional rules inapplicable, which highlights the need for new, *efficient and* up-to-date ones, *which should comply with the technological development and the innovations recently arisen and used on the market*;

Or. ro

## **Amendment 125**

**Max Andersson**

### **Motion for a resolution**

#### **Recital X**

##### *Motion for a resolution*

X. whereas the shortcomings of the current legal framework are apparent in the area of contractual liability insofar as machines designed to choose their counterparts, negotiate contractual terms, conclude contracts and decide whether and how to implement them make the traditional rules inapplicable, which highlights the need for new, more up-to-date ones;

##### *Amendment*

X. whereas the shortcomings of the current legal framework are apparent in the area of contractual liability insofar as machines designed to choose their counterparts, negotiate contractual terms, conclude contracts and decide whether and how to implement them make the traditional rules inapplicable, which highlights the need for new, more up-to-date ones, *applicable to robots acting as contracting parties*;

Or. en

## **Amendment 126**

**Gilles Lebreton**

### **Motion for a resolution**

#### **Recital X**

##### *Motion for a resolution*

X. whereas the shortcomings of the current legal framework are apparent in the area of contractual liability insofar as

##### *Amendment*

X. whereas the shortcomings of the current legal framework are apparent in the area of contractual liability insofar as *they*



machines designed to choose their counterparts, negotiate contractual terms, conclude contracts and decide whether and how to implement them ***make the traditional rules inapplicable, which highlights the need for new, more up-to-date ones;***

***are*** machines designed to choose their counterparts, negotiate contractual terms, conclude contracts and decide whether and how to implement them ***and the rules on human responsibility applicable to such machines need to be specified;***

Or. fr

## **Amendment 127**

**Therese Comodini Cachia**

### **Motion for a resolution**

#### **Recital X**

##### *Motion for a resolution*

X. whereas ***the*** shortcomings ***of*** the current legal framework ***are*** apparent in the area of contractual liability insofar as machines designed to choose their counterparts, negotiate contractual terms, conclude contracts and decide whether and how to implement them ***make the traditional rules inapplicable, which highlights the need for new, more up-to-date ones;***

##### *Amendment*

X. whereas shortcomings ***in*** the current legal framework ***may become*** apparent in the area of contractual liability insofar as ***agents employ*** machines designed to choose their counterparts, negotiate contractual terms, conclude contracts and decide whether and how to implement them; ***whereas this*** highlights the need for ***reform of the current legal framework;***

Or. en

## **Amendment 128**

**Therese Comodini Cachia**

### **Motion for a resolution**

#### **Recital Y**

##### *Motion for a resolution*

Y. whereas, as regards non-contractual liability, Council Directive 85/374/EEC of 25 July 1985<sup>3</sup> can only cover damage caused by a robot's manufacturing defects and on condition that the injured person is able to prove the actual damage, the defect

##### *Amendment*

Y. whereas, as regards non-contractual liability, Council Directive 85/374/EEC of 25 July 1985<sup>3</sup> can only cover damage caused by a robot's manufacturing defects and on condition that the injured person is able to prove the actual damage, the defect

in the product and the causal relationship between damage and defect (strict liability or liability without fault);

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<sup>3</sup> 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 defective products (OJ L 210, 7.8.1985, p. 29).

in the product and the causal relationship between damage and defect (strict liability or liability without fault) ***framework may not be sufficient***;

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<sup>3</sup> 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 defective products (OJ L 210, 7.8.1985, p. 29).

Or. en

**Amendment 129**  
**Gilles Lebreton**

**Motion for a resolution**  
**Recital Z**

*Motion for a resolution*

***Z. whereas, notwithstanding the scope of the Directive 85/374/EEC, the current legal framework would not be sufficient to cover the damage caused by the new generation of robots, insofar as they can be equipped with adaptive and learning abilities entailing a certain degree of unpredictability in their behaviour, since these robots would autonomously learn from their own, variable experience and interact with their environment in a unique and unforeseeable manner;***

*Amendment*

***deleted***

Or. fr

**Amendment 130**  
**Ádám Kósa**

**Motion for a resolution**  
**Recital Z**

*Motion for a resolution*

Z. whereas, notwithstanding the scope of the Directive 85/374/EEC, the current legal framework would not be sufficient to cover the damage caused by the new generation of robots, insofar as they can be equipped with adaptive and learning abilities entailing a certain degree of unpredictability in their behaviour, since these robots would autonomously learn from their own, variable experience and interact with their environment in a unique and unforeseeable manner;

*Amendment*

Z. whereas, notwithstanding the scope of the Directive 85/374/EEC, the current legal framework would not be sufficient to cover the damage caused by the new generation of robots, insofar as they can be equipped with adaptive and learning abilities entailing a certain degree of unpredictability in their behaviour, since these robots would autonomously learn from their own, variable experience and interact with their environment in a unique and unforeseeable manner, ***and whereas it cannot be predicted at which point in the learning process the robot will reach the level when it ceases to be a simple tool for human use;***

Or. hu

**Amendment 131**  
**Eleftherios Synadinos**

**Motion for a resolution**  
**Recital Z**

*Motion for a resolution*

Z. whereas, notwithstanding the scope of the Directive 85/374/EEC, the current legal framework would not be sufficient to cover the damage caused by the new generation of robots, insofar as they can be equipped with adaptive and learning abilities entailing a certain degree of unpredictability in their behaviour, since these robots would autonomously learn from their own, variable experience and interact with their environment in a unique and unforeseeable manner;

*Amendment*

Z. whereas, notwithstanding the scope of the Directive 85/374/EEC, the current legal framework would not be sufficient to cover the damage caused by the new generation of robots, insofar as they can be equipped with adaptive and learning abilities entailing a certain degree of unpredictability in their behaviour, since these robots would autonomously learn from their own, variable experience and interact with their environment in a unique and unforeseeable manner ***beyond any initial arrangements and guidelines;***

Or. el

## Amendment 132

Daniel Buda

### Motion for a resolution

#### Recital Z

##### *Motion for a resolution*

Z. whereas, notwithstanding the scope of the Directive 85/374/EEC, the current legal framework would not be sufficient to cover the damage caused by the new generation of robots, insofar as they can be equipped with adaptive and learning abilities entailing a certain degree of unpredictability in their behaviour, since these robots would autonomously learn from their own, variable experience and interact with their environment in a unique and unforeseeable manner;

##### *Amendment*

Z. whereas, notwithstanding the scope of the Directive 85/374/EEC, the current legal framework would not be sufficient to cover the damage caused by the new generation of robots, insofar as they ***are autonomous and/or*** can be equipped with adaptive and learning abilities entailing a certain degree of unpredictability in their behaviour, since these robots would autonomously learn from their own, variable experience and interact with their environment in a unique and unforeseeable manner;

Or. ro