Civil law rules on robotics

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The Committee on Legal Affairs adopted the report by Mady DELVAUX (S&D, LU) with recommendations to the Commission on Civil Law Rules on Robotics (Initiative – Rule 46 of the Rules of Procedure).

The Committee on Transport and Tourism as well as the Committee on Civil Liberties, Justice and Home Affairs, exercising their prerogatives as associated committees in accordance with Article 54 of the Rules of Procedure, also gave their opinions on the report.

More and more appliances are now able to operate interactively and autonomously to some extent. Examples include self-driving cars and autonomous weapons. Artificial intelligence and robotics are advancing at an accelerating pace and legislation needs to be updated in line with a changing world.

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 to be poised to unleash a **new industrial revolution**, which is likely to leave no stratum of society untouched. The development of robotics and artificial intelligence raises legal and ethical issues which require a prompt intervention at EU level.

Members called on the Commission to submit, on the basis of Article 114 TFEU, a **proposal for a directive** on civil law rules on robotics, following the detailed recommendations:

Common Union definitions: Members called on the Commission to propose common Union definitions of cyber physical systems, autonomous systems, smart autonomous robots and their subcategories.

Registration of smart robots: Members considered that a comprehensive Union system of registration of advanced robots should be introduced within the Union's internal market. The Commission is called upon to establish criteria for the classification of robots that would need to be registered. They also considered it essential, in the development of robotics and AI, to guarantee that **humans have control over intelligent machines at all times** and that special attention should be paid to the possible development of an emotional connection between humans and robots particularly in vulnerable groups (children, the elderly and people with disabilities).

In order to avoid fragmentation in the internal market, the report noted that testing, certification and market approval should only be required in a single Member State and that this approach should be accompanied by effective market surveillance.

Research and innovation: welcoming the fact that more and more research projects are being funded by the Member States and the Union, Members called on the Commission and the Member States to **strengthen financial instruments** for research projects in robotics and ICT. The EU already supports robotics projects through the SPARC programme which funds innovation in robotics by European companies and research institutions. However, increased support for this particular programme is called for.

Ethical principles: Members stressed that the existing Union legal framework should be **updated and complemented**, where appropriate, by guiding ethical principles in line with the complexity of robotics and its many social, medical and bioethical implications. A clear, strict and efficient guiding ethical framework for the development, design, production, use and modification of robots is needed to complement the existing national and Union acquis. They proposed, in the annex to the resolution, a

framework in the form of a **charter consisting of a code of conduct** for robotics engineers, of a code for research ethics committees when reviewing robotics protocols and of model licences for designers and users.

The report suggested that advanced robots should be equipped with a '**black box**' which records data on every transaction carried out by the machine, including the logic that contributed to its decisions.

A European Agency for robotics and artificial intelligence: Members stressed that enhanced cooperation between the Member States and the Commission is necessary in order to guarantee coherent cross-border rules in the Union. This Agency should provide the technical, ethical and regulatory expertise needed to support the relevant public actors, at both Union and Member State level. The Agency should be provided with a **proper budget** and staffing.

Intellectual property rights: Members emphasised that the protection of networks of interconnected robots and artificial intelligence has to be ensured to prevent potential security breaches. A high level of security and protection of personal data together with due regard for privacy in communication between humans, robots and AI are fundamental. The Commission and the Member States are urged to ensure that civil law regulations in the robotics sector are consistent with Regulation (EU) 2016/679 of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data and the free movement of such data (General Data Protection Regulation).

Liability: civil liability for damage caused by robots is a crucial issue which also needs to be analysed and addressed at Union level. In this regard, the Commission is asked to submit a proposal for a legislative instrument on legal questions related to the development and use of robotics and artificial intelligence foreseeable in the next 10 to 15 years, combined with non-legislative instruments such as guidelines and codes of conduct.

Members made a further series of recommendations on autonomous vehicles (the automotive sector is in most urgent need of efficient Union and global rules), drones, medical robots and human repair. They also called on the Commission to provide significant support for the development of digital abilities as a first step towards better aligning labour market shortages and demand.