EUROSMART
The Voice of the Digital Security Industry

On the Product Liability Directive

The Product Liability Directive has proven its value during the past three decades to ensure the victims' right to compensation, even without fault on the part of the producer (strict liability). This directive oversees major aspects of the European Single Market; it complements the safety requirements for placing a product on the market with the right to compensation in case a product is still defective, i.e if does not provide the safety which a person is entitled to expect. Today, this approach is challenged by the emergence of new technologies, and security-related concerns.

Eurosmart believes that the current directive is well designed and adapted to these new technologies and challenges. Nevertheless, as explained during meetings of the Commission's Expert Group on Liability and New Technologies, the current version of the text will be recast. In this new context, Eurosmart would like to raise a few points that would improve the effectiveness of the Product Liability Directive. This document is meant to provide additional guidance for the work of the Expert Group.

Software as a product

Software solutions are fully part of our daily lives and their malfunctioning can lead to significant damage. Such damage should be covered by the Product Liability Directive. Therefore, the definition of a product should be revised to encompass software, including artificial intelligence systems. Thus, Article 2 of the Directive could be extended as follows:

> *For the purpose of this Directive, "product means all movables, even if incorporated into another movable or into an immovable. "Product" includes electricity* ***and software.***

Robustness against attacks

New technologies, hardware and software, require a new definition of the conditions under which a product is considered defective. Currently, Article 5 of the Product Liability Directive stipulates that "[a] product is defective when it does not provide the safety which a person is entitled to expect […]". As safety and security become more and more intertwined, Eurosmart believes that security is part of the features that consumers are entitled to expect from a product. However, cybersecurity is a moving target, hence consumers should be entitled to expect a certain level of robustness against attacks, but it cannot be expected from a product to provide absolute security.

The Product Liability Directive should be complemented by a document drawing a classification of cyber-risks per functionality. There are different levels of security according to the risk evaluation and having a harmonised risk classification is key to ensure legal certainty.

Enlarging the definition of "damage"

The current definition of "damage" does not encompass new types of damage that were not foreseen when the directive was first drafted. For instance, a loss of data is a form of damage to property which is not recognised as such across the entire EU. This is particularly important for companies whose business model is based on data management, where raw or anonymised data represents a large part of the companies' assets. For instance, if the legislator wants to support the deployment of Europe-based data and AI solutions, a certain level of "safeguard" must be granted.

A modernisation of the concept of "damage", as defined by Article 9, should align approaches on this issue.

Clarifying responsibilities

The definition of a producer, laid down in Article 4, is quite restrictive in relation to new technologies. Software developers play an important role in terms of safety and security: they should be considered producers pursuant to the Product Liability Directive. Therefore, the term "producer" in the meaning of the Article 3 of the Directive should include developers

> *Producer means the manufacturer **[developer]** of a finished product, the producer of any raw material, ~~or~~ the manufacturer **[developer]** of a component part and any person who, by putting his name, trademark or other distinguishing feature on the product presents himself as its producer.*

New technologies make the identification of responsibilities more complicated. In this respect, Article 5 on joint liability is more accurate than ever as it provides the possibility to hold several persons liable for the same damage. However, as a general rule, Eurosmart believes that liability should lie within the person who is most responsible for the defective features of a product. For instance, failure of a software due to an intrinsic vulnerability at the development stage triggers the developer's liability.

Liability and artificial intelligence

As a member of the Expert Group on Liability and New Technologies, Eurosmart has been advocating for software to be considered a product. According to the High-Level Expert Group on Artificial Intelligence, AI-based systems can be either purely software-based or embedded in a hardware device[1]. Therefore, AI is a software or a combination of software and hardware that compose a product, and these two types of products could fall under the scope of the current Product Liability Directive.

Artificial intelligence brings new challenges related to liability as it makes it increasingly difficult to identify the specific defect that led to damage. Eurosmart believes that artificial intelligence deserves a dedicated approach in terms of liability and welcomes the Commission's White Paper on Artificial Intelligence, which tackles the issue of liability for autonomous systems.

Among other things, it is necessary to introduce a requirement to record information about the operation of the technology (logging by design). This would provide valuable support in determining the cause of a damage, and thus assign liability.

[1] High-Level Expert Group on Artificial Intelligence, "A definition of AI: main capabilities and disciplines", April 2019.

Artificial intelligence challenges Article 7 of the Product Liability Directive, which states that a producer shall not be liable if he proves "that having regard to the circumstances, it is probable that the defect which caused the damage did not exist at the time when the product was put into circulation by him or that this defect came into being afterwards". Artificial intelligence systems evolve over time, and **vulnerabilities might arise in the course of such an evolution**. The concept of liability would be meaningless if producers were not liable for such vulnerabilities arising after placing on the market as they still designed the systems in the first place.

Eurosmart recommends including a concept of "State of the Art (SOTA)" and maintenance of AI systems as long as AI products are developed and placed on the market. This approach relies on international standards and harmonised European standards and ensures the producer with proof of conformity. SOTA involves the maintenance of an attack catalogue and the development of attack methods which includes penetration testing. Moreover, SOTA enables reliable patch mechanisms throughout the life cycle of the product. "State of the Art" can be demonstrated through adequate certification.

According to the Commission's White Paper on Artificial Intelligence, future EU rules might implement a strict liability regime for high-risk AI applications, potentially coupled with mandatory insurance. Eurosmart calls on the Commission to carefully assess the potential impacts of such rules before implementing them. AI is still not a mature market, which means that data is lacking to determine the insurance premiums that could cover high-risk AI applications. Could this lead to overestimated premiums that would eventually discourage users for acquiring AI products or manufacturers from producing them? If such a mandatory insurance was to be implemented, Eurosmart strongly enjoins the Commission to consider adopting liability caps in order to make risks insurable.

About us

Eurosmart, the Voice of the Digital Security Industry, is an **international non-profit association located in Brussels**, representing the **Digital Security Industry** for multisector applications. **Founded in 1995**, the association is committed to expanding the world's Digital secure devices market, developing smart security standards and continuously improving the quality of security applications.

Our members

Members are designers or manufacturers of secure elements, semiconductors, smart cards, systems on chip, High Security Hardware and terminals, biometric technology providers, system integrators, secure software and application developers and issuers. Members are also involved in security evaluation as laboratories, consulting companies, research organisations and associations.

Eurosmart members are companies (**BCA, Bureau Veritas, Fingerprint Cards**, **G+D Mobile Security**, **GS TAG**, **IDEMIA**, **IN GROUPE**, **Infineon Technologies**, **Inside Secure**, **Linxens**, **Nedcard**, **NXP Semiconductors**, **+ID**, **Prove & Run**, **Qualcomm**, **Real Casa de la Moneda**, **Samsung**, **Sanoïa**, **Sarapis**, **SGS**, **STMicroelectronics**, **Thales**, **Tiempo Secure, Toshiba**, **Trusted Objects**, **WISekey**, **Winbond, Xilinx**), laboratories (**Brightsight**, **Cabinet Louis Reynaud, CEA-Leti, Jtsec, Keolabs**, **Red Alert Labs**, **Serma**,), consulting companies (**Internet of Trust, Trust CB**), research organisations (**Fraunhofer AISEC, Institut Mines-Telecom - IMT, ISEN - Institut Supérieur de l'Électronique et du Numérique Toulon**), associations (**SCS Innovation cluster**, **Smart Payment Association**, **SPAC, Mobismart**, **Danish Biometrics**).

Eurosmart is member of several European Commission's groups of experts: Radio Equipment Directive, eCall, Multistakeholder platform for ICT standardisation and Product Liability.

Eurosmart and its members are also active in many other security initiatives and umbrella organisations at EU-level, like CEN-CENELEC, ECIL, ETSI, ECSO, ESIA, ETSI, GP, ISO, SIA, TCG and others.

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