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PRODUCT LIABILITY, LEGAL TRANSPLANTS AND ARTIFICIAL INTELLIGENCE

"The principle contended for must be this: that the manufacturer, or indeed the repairer, of any article, apart entirely from contract, owes a duty to any person by whom the article is lawfully used to see that it has been carefully constructed. All rights in contract must be excluded from consideration of this principle; such contractual rights as may exist in successive steps from the original manufacturer down to the ultimate purchaser are ex hypothesi immaterial. Nor can the doctrine be confined to cases where inspection is difficult or impossible to introduce."[1] *These words by Lord Buckmaster written in 1932 mark a milestone in legal jurisprudence relating to liability for defective products, in common legal terminology also widely known as product liability (ger. Produkthaftung, srb. odgovornost proizvođača stvari s nedostatkom). From there on, legal reasoning in relation to strict product liability has been transposed to the United States and in 1970s gained momentum also in the continental Europe where it peaked in 1985 by adoption of the European Community Council Directive 85/374/EEC. This article aims to outline key characteristics of product liability as a legal transplant, its issues due to transposition deficiency and the role product liability will have in the future where internet of things, artificial intelligence, digitalisation and cybersecurity play a significant role.*

Key words: *Product Liability. – European Private Law. – Consumer Protection Law. – Strict Liability. – Artificial Intelligence.*

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1 United Kingdom House of Lords judgement in *Donoghue v Stevenson* [1932] AC 562.

1. PRODUCT LIABILITY AND ITS SCOPE

Product liability represents a strict liability system pursuant to which the producers, brand-owners and importers are liable for compensation of damage caused by defective products. Thus, product liability, contrary to a liability system based on negligence, does not require any proof of guilt. The focus is therefore shifted to the question whether the claimant has established that the product is defective.[2]

In accordance with the European Community Council Directive 85/374/EEC[3] (hereinafter, the "PLD"), which represents one of the worlds' most important legal sources for product liability, a product is defective when it does not provide the safety which a person is entitled to expect, taking all the circumstances into account, including the presentation of the product, the use to which it could reasonably be expected that it would be put and the time when the product was put into circulation.[4] The safety which the public at large is entitled to expect, must therefore be assessed by taking into account, inter alia, the intended purpose, the objective characteristics and properties of the product in question and the specific requirements of the group of users for whom the product is intended.[5]

Even though the aforementioned premises derive from the PLD, the substantive basis of product liability are similar also in the United States and of course other countries which followed the lead of the then European Community. Reasons for such harmonized approach are to be sought in the common understanding that such strict liability represents internalization of costs which are best borne by producers, who can in turn increase the price of the product in the amount equal to the increased costs due to product liability. Producers (as well as brand-owners and importers) therefore act as insurers and the slight increase in price may be construed as an insurance premium.

Although product liability is an institution that has some historical mileage, it is certainly not outdated. To the contrary – the growing expansion of medical and biomedical sciences, development and implementation of internet of things (IoT), digitalization, artificial in-

2 C. J. Miller, R. S. Goldberg, *Product Liability*, Oxford, 2004, 345.

3 Council Directive 85/374/EEC of 25 July 1985.

4 PLD, Article 6.

5 European Court of Justice Judgement, Joined Cases C-503/13 and C-504/13 dated 5 March 2015.

telligence, as well as public health concerns regarding transmission of different diseases such as Hepatitis C, AIDS, new variant Creutzfeldt-Jakob disease through blood products, these questions have never been so topical.[6] Due to the immanent evolution of every legal institution it is not surprising that efforts to reform some ambiguous questions regarding product liability are on the rise.

2. IS PRODUCT LIABILITY A LEGAL TRANSPLANT ITSELF?

It was already stated that product liability is an institution that historically derived from the need to allow claims against producers for damage that was caused due to the defectiveness of the product. Reasons for such development lie within the nature of mass production, which should not lead us to a false conclusion that product liability deals only with objects of low added value – it is often quite to the contrary, since product liability comes mostly into play in pharmaceutical, air, automobile and tobacco industry, as well as in the field of medicinal products and devices.[7]

Major historical barrier that disallowed development of product liability and which was mostly influential under English common law system was privity of contracts. Courts persistently rejected claims that were filed against a person that was not a party to the contract (e.g. case *Winterbottom v. Wright*, 1842).[8] Such view was eventually exceeded in several important judgements by the House of Lords in 1930s in the United Kingdom.[9] Subsequently the idea of strict liability that pierces the veil of privity of contracts arose also in the United States,

6 It must be noted that this is a quite problematic area which deals with subsumption of errors of these kind under the product liability and remains, at least partially, unsolved. However, it should be borne in mind that it was exactly a similar public health crisis in the 1960's that lead to European regulation of this area. See G. Howells, "Product Liability – A History of Harmonisation", *Towards a European Civil Code* (eds. A. S. Hartkamp *et al.)*, Kluwer Law International, Alphen aan den Rijn 2011, 645–656.

7 K. W. Viscusi, "Does Product Liability make us safer", *Consumer Protection,* Spring 2012, 24.

8 D. W. Stearns, *An introduction to Product Liability Law*, London, 2013.

9 As a historical milestone regarding product liability is often mentioned the case of *Donoghue v Stevenson* [1932] AC 562.

more specifically in California. In 1944, in the case of *Escola v. Coca-Cola Bottling Co.*[10] Justice Traynor wrote a landmark concurring opinion in which he stated that, if public policy demands that a manufacturer of goods be responsible for their quality regardless of negligence there is no reason not to fix that responsibility openly and gradually. This position was later affirmed in the case of *Greenman v. Yuba Power Products, Inc.*[11]

It would be incorrect to state that the product liability in continental Europe started evolving at supranational levels. Beginnings are to be sought in fault-based national systems intended for defective products in Denmark, Germany, the Netherlands and Ireland, as well as in different strict liability regimes (e.g. Belgium, France and Luxembourg)[12] adopted mostly after 1970s due to the Thalidomide[13] crisis in 1960's.[14]

Such country-by-country development of product liability was unsatisfactory due to restraints on ever growing international trade, as well as due to the rise of Consumerism and its fight for consumer's health and safety.[15] Therefore, intentions to harmonize product liability arose quite early, in 1968. By the year 1974 the first draft of the PLD was prepared by prof. Taschner, which was, on 25th of July 1985, following harsh negotiations and conclusion of compromises, adopted as the PLD.[16] Since the PLD is an instrument of harmonisation and not

10 *Escola v. Coca-Cola Bottling Co*., 24 Cal.2d 453, 150 P.2d 436.

11 *Greenman v. Yuba Power Products, Inc.* (1963) 59 Cal.2d 57 [27 Cal.Rptr. 697, 377 P.2d 897].

12 A. Kobal, "Ureditev odgovornosti proizvajalca za izdelek z napako", *Podjetje in delo,* 3 1997, 350.

13 Primarily prescribed as a sedative or hypnotic, thalidomide also claimed to cure anxiety, insomnia, gastritis, and tension. Afterwards it was used against nausea and to alleviate morning sickness in pregnant women.

Thalidomide became an over the counter drug in Germany in 1957, and could be bought without a prescription. Shortly after the drug was sold, in Germany, between 5,000 and 7,000 infants were born with malformation of the limbs (phocomelia). Only 40% of these children survived.

14 G. Howells, M. Pilgerstorfer, "Product liability", *The Cambridge Companion to European Private Law* (eds. C. Twigg-Flesner), Cambridge University Press, Cambridge 2010, 258.

15 C. J. Miller, R. S. Goldberg, *op. cit.*, 215.

16 For the sake of completeness, the Council of Europe's Convention of 2 October 1973 on the Law Applicable to Products Liability (Strasbourg Convention) should also be mentioned, even though it did not play an important role, since

unification (contrary to a regulation under EU law), the PLD required its transposition into national legal frameworks.

Even though the PLD required from member states that its provisions are transposed within three years, only the United Kingdom, Greece and Italy managed this. The last on its quest for transposition was France, who fully transposed the PLD only after being imposed with daily fines by the European Court of Justice in 1998. This occurrence is a prime example of the fact that if a country has a functioning system of a certain legal institute, it will be more problematic for it to make the shift towards the new system in accordance with a harmonising institute. The transposition of the PLD by the member states occurred mainly through the implementation into national consumer protection legislation.[17]

Importantly, the PLD became one of European Community's most important legal exports. The legislatures of several countries introduced strict liability for defective products, which was based on the European model. The main difference between the United States model and the European model is that the latter applies to producers, brand-owners and importers (regardless of their seat of incorporation), whereas the United States model is generally occupied only with domestic producers or distributors. The PLD, as a transplant, was therefore used in Israel (1980, based on an early proposed draft of the Directive), Brazil (1990), Peru (1991), Australia (1992), Russia (1992), Switzerland (1992), Argentina (1993), Japan (1994), Taiwan (1994), Malaysia (1999), South Korea (2000), Thailand (2007), South Africa (2009) and Turkey (2013).

Possibility of having such a legal transplant is not to be underrated. Benefits of having the possibility to transpose a standardized and complete piece of legislation that is based, in its substance, on fair apportionment of the risks that are inherent in modern technological production, are several. They include not only enhancement of consumer health and safety (by introducing a safety net, in case safety regulations fail, as well as aforementioned actual insurance), but, which

it was never ratified by sufficient number of countries and thus never became effective.

17 For example the UK (Consumer Protection Act, 1987), Slovenia (*Zakon o zaščiti potrošnikov*, 1998, with changes in 2004 and further), Serbia (*Zakon o zaštiti potrošača*, 2010). In France for instance the product liability is implemented into their *Code Civil*.

may be also the most important benefit of international legal transplants, reduces transaction costs by levelling the playing field and thus enhances innovation. Other befits include legal benefits such as transparency and legal certainty across different legal regimes.

3. FROM A LEGAL TRANSPLANT TO MAXIMUM HARMONISATION

Each legal transplant has to be, in one form or another, implemented into existing legal system of each individual country. Such transposition does not come without negative effects, or, in other words, even though the transplant is the same, its effectiveness and functioning in a specific legal environment differs between countries. In order to avoid such differences and to safeguard the initial position of the European Commission which is in creation of an internal market without competitive disadvantages concerning product liability, a common understanding that the PLD is a maximum harmonisation directive, has been formed by commentators and confirmed by case law.

Maximum harmonisation means that member states are not permitted to introduce laws which would increase the level of protection conferred by the PLD,[18] and that parallel strict liability regimes within the scope of the PLD, other than those existing at the moment the PLD has been notified,[19] are not permitted.[20] Taking into consideration that one of the aims of the PLD is to increase consumer health and safety, such limitation seems counterproductive, however it is important to emphasize that the primary aim of the PLD is nevertheless to remove existing divergences between member states.[21] Using such reasoning it is logical that the PLD provided a ceiling of protection.[22]

Nevertheless, as some authors point out, the PLD has not been able to achieve complete harmonisation of marketing conditions.[23] There are several reasons for that, with the most important ones be-

18 C. J. Miller, R. S. Goldberg, *op. cit.*, 221.

19 PLD, Article 13.

20 European Court of Justice Judgement, Case C-183/00 dated 25 April 2002.

21 PLD, Recital 1.

22 J. Stapleton, *Product Liability*, Cambridge 1994, 61.

23 M. Ueffing, "Directive 85/374 – European Victory or a Defective Product Itself?", *MaRBle Research Papers*, 2013, 398.

ing incorporated directly into the PLD. It was already mentioned that reaching a unanimous support for the PLD, in light of political situation in 1980s, was not simple. In order to facilitate such support, the PLD itself provides for several provisions that limit the scope of maximum harmonization: (i) pre-existing laws of member states are permitted,[24] (ii) derogation from development risk defence as an option,[25] (iii) introduction of a cap on liability in the amount of EUR 70 million, (iv) reference to national legal systems in relation to several important aspect of the PLD, such as evidentiary standards, procedural approach, applicability of non-material damage, etc.

An additional important aspect to why the maximum harmonisation pursuant to the PLD is suboptimum is that in the end national courts have to construe broad and often vague legal terms, which do not offer any specific guidance as for their application in practice. Broad legal terms are also a consequence of reaching a compromise in the adoption stage. It is interesting to note that it might be the nature of this broad legal terms that enabled exporting success of the PLD, whereas the same circumstance provided for less than optimum legal solution in such an important legal field as product liability most certainly is. Some of these deficiencies will be discussed in the next section.

4. LACUNAE AND DEFFICIENCIES OF THE PLD

The PLD requires the European Commission to report to the Council and Parliament every five years on its implementation. These reports, accompanied with specific outsourced studies and evaluations, generally provide an insightful review of product liability issues on

24 It is generally understood that only Germany represents such example with its *Produkthaftungsgesetz*. It is questionable whether provisions of the Yugoslavian *Zakon o obligacionim odnosima* (Article 179) fulfils the prerequisites, since it also provides for strict liability in relation to defective products and was enacted in 1978. See Judgement of the Supreme Court of the Republic of Slovenia no. II Ips 401/1996 dated 4 September 1997.

25 Only Luxembourg and Finland opted to derogate completely from the development risk defence. Authors mention also Spain, as having partially derogated (in relation to medicines and food products). It is also interesting to note that Slovenia also partially derogated from development risk defence, in relation to medicines. See *Zakon o zdravilih* (Article 27/IV).

national levels. Unfortunately, until now, these reports did not provide basis for any amendments or refreshments of the PLD, even though lacunae and deficiencies are constantly identified in these reports.

The following issues, that greatly influence effectiveness of the PLD, have been identified on national levels:[26]

(i) burden of proof that lies on victims;
(ii) applicability of the development risk defence and its possible abolition;
(iii) applicability of financial thresholds and their possible abolition or justification;
(iv) existence and possible modification of the ten-year long stop;
(v) types of goods covered;
(vi) types of damage covered;
(vii) interpretation of product's defectiveness;
(viii) the need to make insurance mandatory.

4.1. Burden of proof

Pursuant to the PLD, the person injured by a defective product must prove the damage, the defect and the causal relationship between them.[27] From this provision the paramount difference between the system based on negligence and the strict liability system is evident, since for the former, it would have to be proved that a breach of duty caused the harm, whereas under the PLD it must be proved that the defect caused the harm.[28] This lead some commentators to a conclusion that the resulting liability is superficially strict, but substantially fault based.[29] An additional hindrance is also the fact that each member state will rely on its own theory of causation. Without a proper guidance by the European Commission, it is not likely that an EU-autonomous system could be established, even though it would be pragmatic, since there is lack of understanding how far should proving of different elements required for product liability go.

26 C. J. Miller, R. S. Goldberg, *op. cit.*, 230.

27 PLD, Article 4.

28 C. J. Miller, R. S. Goldberg, *op. cit.*, 746.

29 S. Whittaker, "The EEC Directive on Product Liability", *YbK Eur Law* 5/1985, 233 1985, 240.

4.2. Development risk defence

Development risk defence is one of several grounds pursuant to the PLD that enable exoneration by the producer (or brand-owner or importer) of its liability. These grounds diminish, to a certain extent, the function of strict liability, but are important in order to safeguard innovation and technological improvements. The most problematic is the development risk defence, which is one of the reasons it is optional and members states may exclude its applicability. Development risk defence provides that the producer is not liable, if it proves that the state of scientific and technical knowledge at the time when the product was put into circulation, was not such as to enable the existence of the defect to be discovered.[30]

4.3. Financial thresholds

The PLD incorporates two main financial thresholds. The optional one is the liability cap set at EUR 70 million, whereas the second relates to admissibility of a claim. Only if damage in excess of EUR 500 exists, the claim is admissible.[31] The initial rationale for such thresholds was in the prevention of excessive petitory claims and judicial proceedings. The effect of such threshold is not analysed sufficiently, but it is doubtful that the threshold served its purpose. It is furthermore not clear what is the nature of such threshold. The first possible interpretation is, that the threshold is a minimum requirement, which is, if exceeded, compensated in full, whereas the second one is that the threshold is a deductible. For the latter interpretation this would mean that if there is a damage in the amount of EUR 510, the claim would be admissible and the maximum damages would amount to EUR 10. Practice between the member states varies and there is no clear pattern.[32]

4.4. Types of goods covered

Even though the PLD defines a product as all movables even if incorporated into another movable or into an immovable, including

30 PLD, Article 7.

31 PLD, Article 9.

32 C. J. Miller, R. S. Goldberg, *op. cit.*, 669. For example, the Netherlands and the United Kingdom see the threshold as a minimum amount, whereas Austria, Denmark, Finland, Germany and Italy treat is as a deductible.

electricity,[33] it is uncertain whether movables must be tangible or could they be intangibles, such as, for example, software or other intellectual products. The practice between member states varies. For example Belgium explicitly transposed the movable into its national language in such manner that it is clear that it relates to tangible movables.[34] An additional requirement, that the product must be industrially produced, derives from the Recitals of the Directive.

Uncertainty in relation to inclusion of intellectual products is a major detriment, especially considering the applicability of the PLD in relation to artificial intelligence, digitalisations and cybersecurity which are all based on intellectual products. One could argue on the basis of the existing wording that intangibles could be within the scope of the PLD, since electricity is explicitly included. This argument could be however also construed as an *argumentum a contrario,* meaning that since the PLD explicitly included electricity, other intangibles are therefore not included.

One can also agree with Prof. Miller and Prof. Goldberg that the courts in question should consider the purpose of the PLD. As such, harmonization of competition and free movement of goods within the EU should be used for arguing that all movables, tangible and intangible, are within the scope of the PLD.[35] Having in mind that some countries explicitly exclude intangibles (i.e. Belgium), and that certain commentators share this opinion,[36] further guidance by the European Commission or amendment of the PLD in this respect, would be necessary in order to facilitate applicability of the PLD in the digitalised world.

5. RELEVANCE OF THE PLD IN THE DIGITALISED WORLD

2019 is not 1985. This slightly modified statement from the European Commission's last Report on the application of the PLD

33 PLD, Article 2. In the beginning the PLD did not include agricultural products and game.

34 C. J. Miller, R. S. Goldberg, *op. cit.*, 322.

35 *Ibid.*

36 D. Wuyts, "The Product Liability Directive – More than two Decades of Defective Products in Europe", *JETL* 5/2014, 6.

clearly describes the situations.[37] First drafters of the PLD did most certainly not envisage innovation in the digital era and consequences of such digitalised world on product liability. Nowadays it is increasingly more certain that different Internet of Things devices, as well as artificial intelligence, are likely to have more serious consequences such as damage to property, personal harm or even death.[38] Nevertheless, it is important to take into consideration once of important premises of the PLD, that it must ensure the pace of innovation is not stymied. Reaching of an appropriate balance will be of crucial importance.

The PLD and plethora of academic research related therewith, will have an important position in discussing (i) when is a digital product deemed defective, (ii) who is responsible for the defect and (iii) who is responsible for the damage caused by the failures of digital techniques.[39]

In relation to defectiveness of a product, industries with high levels of digitalisation, such as aviation or space industry, should be taken into consideration. Different standardizations, such as software failure standards, could be useful in the future when discussing defectiveness of a product. On the topic of responsibility for product liability, the complicated distribution chain should be considered. Nevertheless, using the principles from the PLD, it seems that proprietors of software should be best placed for internalization of costs pursuant to product liability.

It will be important for the European Commission to prepare certain solutions that will enhance the applicability of the PLD in the digitalized world. Adopting guidance on vague concepts seems to be appropriate, but it might be necessary to substantially amend certain concepts, most importantly the definition of a product. Nevertheless, it can be concluded that strict liability regime will have its place in the digitalised world and that its core principles should remain intact.

37 Report from the Commission to the European Parliament, the Council and the European Economic and Social Committee on the Application of the PLD, COM (2018) 246, 1.

38 B. C. Dean, "Strict Products Liability and the Internet of Things", *Center for Democracy & Technology*, 2018, 1.

39 *Ibid.*

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ODGOVORNOST PROIZVOĐAČA STVARI S NEDOSTATKOM, PRAVNI TRANSPLANTI I VEŠTAČKA INTELIGENCIJA

Rezime

Princip, koji je podržan, je sledeći: „proizvođač, odnosno serviser bilo kog proizvoda, nezavisno u potpunosti od ugovora, ima obavezu prema bilo kom licu koje koristi proizvod da utvrdi da li je proizvod pažljivo izrađen, odnosno napravljen. Sva prava iz ugovora moraju biti isključena prilikom razmatranja ovog principa; takva ugovorna prava koja mogu postojati u sukcesivnim etapama od originalnog proizvođača pa sve do krajnjeg kupca su *ex hypothesi immaterial*. Takođe, doktrina se ne može ograničiti samo na slučajeve gde je teško ili nemoguće izvršiti pregled.“ Ove reči Lorda Bakmastera, napisane 1932. godine obeležavaju prekretnicu u pravnoj praksi koja se odnosi na odgovornost za proizvode sa greškom, u opštoj pravnoj terminologiji nazvanoj odgovornost proizvođača stvari s nedostatkom (nem. *Produkthaftung*, engl. *product liability*). Nadalje, pravni rezon koji se odnosi na odgovornost proizvođača stvari s nedostatkom je transponovan u pravni sistem SAD, a tokom 1970. godina bio je u centru pažnje u kontinentalnoj Evropi dostižući vrhunac 1985. godine usvajanjem Direktive Saveta Evropske zajednice (*European Community Council Directive* 85/374/EEC). Cilj ovog članka je da pojasni i naglasi glavne karakteristike odgovornosti proizvođača stvari s nedostatkom kao pravnog transplanta, pitanja koja proizlaze iz manjkavosti prilikom transponovanja kao i uloge ove odgovornosti u budućnosti gde internet, veštačka inteligencija, digitalizacija i sigurnost na mreži imaju važnu ulogu.

Ključne reči: *Odgovornost proizvođača stvari s nedostatkom. – Evropsko privatno pravo. – Pravo zaštite potrošača. – Stroga odgovornost. – Veštačka inteligencija*.