

A Right to Repair? Towards Sustainable Remedies in Consumer Law

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Abstract: A future proof consumer law can no longer be solely focused on the economic interests of consumers, but should also endeavour sustainability in order to reconcile the aims of Article 11 TFEU (sustainable development) and 12 TFEU (consumer protection). This contribution analyses one particular way to contribute to a more sustainable consumer law: repair. Repair can contribute to a more circular economy but is currently not always the preferred option. A mix of policy measures could overcome obstacles to obtain repair from the seller under the legal and commercial guarantee as well as obstacles for do-it-yourself ('DIY') or independent repair.

Résumé: Un droit de la consommation à l'épreuve du temps ne peut plus être uniquement axé sur les intérêts économiques des consommateurs, mais devrait également viser la durabilité afin de concilier les objectifs de l'art. 11 TFUE (développement durable) et 12 TFUE (protection des consommateurs). Cette contribution analyse un moyen particulier de contribuer à un tel droit de la consommation: la réparation. La réparation peut contribuer à une économie plus circulaire, mais n'est pas toujours l'option privilégiée à l'heure actuelle. Un ensemble de mesures politiques pourrait permettre de surmonter les obstacles à la réparation par le vendeur dans le cadre de la garantie légale et commerciale, ainsi que les obstacles à la réparation par le consommateur lui-même ou par un professionnel indépendant.

Zusammenfassung: Ein zukunftssicheres Verbraucherrecht kann nicht mehr nur auf die wirtschaftlichen Interessen der Verbraucher ausgerichtet sein, sondern sollte auch Nachhaltigkeit anstreben, um die Ziele von Art. 11 AEUV (nachhaltige Entwicklung) und Art. 12 AEUV (Verbraucherschutz) miteinander in Einklang zu bringen. Dieser Beitrag analysiert eine ganz bestimmte Möglichkeit, um zu einem nachhaltigeren Verbraucherrecht beizutragen: die Reparatur. Reparaturen können zu einer besseren Kreislaufwirtschaft beitragen, sind jedoch derzeit nicht immer die bevorzugte Option. Eine Mischung von Maßnahmen könnte zum einen Hindernisse überwinden, vom Verkäufer eine Reparatur im Rahmen der gesetzlichen Mangelhaftung und kommerziellen Garantie zu erhalten, und zum anderen auch solche Hindernisse für Selbstreparatur oder Reparatur durch einen unabhängigen Dritten überwinden.

Key words: Consumer law - sustainability - repair - circular economy.

Mots-clés: Droit de la consommation - durabilité - réparation - économie circulaire.

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1. Introduction

1. Of the 16 ton goods the average European consumer uses per year, 6 ton ends as waste.¹ An important and increasing part concerns electric and electronic waste. By 2020, European consumers would produce more than 12 million ton of electric and electronic waste.² If we just take the mobile phone case as an example, it clearly illustrates that more can be done to reduce the waste produced: in the EU, more than 160 million mobile phones are sold yearly. In 2010 only 6% were being reused and 9% recycled. 85% thus ended in the landfill or was kept somewhere unused.³

Although there is a growing consensus that this is not sustainable,⁴ the mere acknowledgment will not be sufficient. Different business models are currently being developed, including circular business models that aim to keep products and materials in use and that design out waste and pollution.⁵ The law, however, also has a role to play in this transition towards more sustainable business models. Indeed, as illustrated by Eyckmans, policy instruments and thus the legal framework has an important role to play to enable and stimulate more sustainable business models and to correct market failures. Different regulatory measures are currently being taken at different levels of the production chain, both at EU and at Member State (MS) level, to enable and stimulate such models.⁶ Consumer law, in its turn has a role to play in stimulating and enabling a more sustainable consumption.

2. It will be argued in this article that consumer law does currently not sufficiently take into account sustainability aims and that more can be done to reconcile the aims

1 www.ellenmacarthurfoundation.org/assets/downloads/ce100/Empowering-Repair-Final-Public1.pdf (accessed Feb 2019) (data from 2014).

2 European Commission, ec.europa.eu/environment/waste/weee/index_en.htm.

3 Ellen Mc Arthur Foundation, In depth, mobile phones (2012), www.ellenmacarthurfoundation.org/news/in-depth-mobile-phones (accessed Feb 2019).

4 Sometimes from unexpected sources, cf. the encyclical *Laudato si* of pope Francis (2015): ‘*our industrial system, at the end of its cycle of production and consumption, has not developed the capacity to absorb and reuse waste and by-products. We have not yet managed to adopt a circular model of production capable of preserving resources for present and future generations, while limiting as much as possible the use of non-renewable resources, moderating their consumption, maximizing their efficient use, reusing and recycling them. A serious consideration of this issue would be one way of counteracting the throwaway culture which affects the entire planet, but it must be said that only limited progress has been made in this regard*’, w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html, para. 22.

5 See www.ellenmacarthurfoundation.org/circular-economy/concept (accessed Feb 2019).

6 See the contribution of E. MAITRE-EKERN & C. DALHAMMAR, in B. Keirsbilck & E. Terry (eds), *Circular Economy and Consumer Protection* (Antwerpen: Intersentia, in print).

of consumer protection and sustainability. This article departs from the assumption that a future proof consumer law can no longer be solely focused on the economic interests of consumers, but should also endeavour sustainability in order to reconcile the aims of Articles 11 TFEU (sustainable development) and 12 TFEU (consumer protection). This assumption may not be evident as consumer law has indeed traditionally focused on the protection of the economic rights of consumers and has not always taken into account the environmental impact of such rights. Indeed, *‘[c]onsumers may advocate for a better environment, but they may advocate even more strongly in favour of the rights of the widest possible selection of goods at the cheapest price’*.⁷

This contribution will analyse one particular way to contribute to a more sustainable consumer law and to reconcile the aims of consumer protection and sustainability: repair. It will briefly set out why repair can contribute to a more circular economy but is not always the preferred option (section 1). It will analyse the obstacles and possibilities to obtain repair from the seller under the legal and commercial guarantee (section 2) as well as the obstacles and possibilities for do-it-yourself (‘DIY’) or independent repair (section 3). Section 4 analyses the role of labelling as a means to promote repair. As a conclusion, some concrete measures to promote repair are summed up.

1.1. Repair as a Means to Contribute to a More Circular Economy

3. REPAIR IS MORE EFFICIENT THAN RECYCLING. Repair can be an important tool to reduce the amount of waste and to prolong the lifespan of goods, which is the aim of a more circular economy. Although repair (and re-use) is evidently not the only way to extend the lifetime of goods or to reduce waste,⁸ it is a far more efficient strategy than recycling.⁹ Repair (and re-use) conserves energy, materials, water and moreover, the transportation costs to put a product back into use are in general lower.¹⁰ Recycling is less efficient as it causes a loss of material and a

7 C. KYE, ‘Environmental Law and the Consumer in the European Union’, 7. *Journal of Environmental Law* 1995(31), pp 32 ff.

8 See e.g. the initiatives taking in the field of waste and recycling (e.g. Directive 2008/98/EC on waste; Directive 1999/31/EC on the landfill of waste; Directive 94/62/EC on packaging and packaging waste, Directive 2000/53/EC on end-of-life vehicles; Directive 2006/66/ZC on batteries and accumulators and waste batteries and accumulators; Directive 2012/19/EU on waste electrical and electronic equipment).

9 United Nations Environment Programme (2011), *Recycling of Materials: A Status Report*, *wedocs.unep.org/handle/20.500.11822/8702*; APSRG, *Triple Win, the Social Economic and Environmental Case for Remanufacturing. A Report by the All Party Sustainable Resource Group of the UK Parliament* (2014), www.policyconnect.org.uk/apsrg/research/report-triple-win-social-economic-and-environmental-case-remanufacturing (accessed Feb 2019); S. PRAKASH, *Einfluss der Nutzungsdauer von Produkten auf ihre Umweltwirkung: Schaffung einer Informationsgrundlage und Entwicklung von Strategien gegen ‘Obsoleszenz’* (UBA Texte, November 2016).

10 www.ellenmacarthurfoundation.org/assets/downloads/ce100/Empowerng-Repair-Final-Public1.pdf (accessed Feb 2019), pp 5-6.

deterioration of the quality of the materials; rare elements may moreover be entirely lost. In addition, recycling a product implies that it has to go through a secondary production stage to bring it back into a reusable form, thus requiring more material consumption than reuse.¹¹

4. COMPLEX REASONS WHY REPAIR IS (NOT) CHOSEN. Promoting repair can therefore contribute to more sustainable business models and to a more circular economy. Repair is currently however not always chosen and there are various reasons why consumers may prefer replacement over repair.¹² The price is an important factor and more specifically the ratio of the price of repair vs. to price to replace.¹³ There are however also other factors, such as implicit repair costs (travel and waiting times), fashion obsolescence (products lose their appeal because new products have appeared into the market) and also the consumer's confidence that repairs are done properly will have an impact.¹⁴ Not all of these factors are simple to overcome in a society in which consumers are used to instant gratification and in which manufacturers spend huge budgets 'to wet consumer's appetites for the most recent products with the newest design features'.¹⁵

There are however also some signs of hope. First, bottom up repair initiatives in the form of repair cafés¹⁶ and of organizations that collect and exchange repair information and expertise like iFixit or the Brussels Tournevie initiative¹⁷ are growing and expanding. Second, according to a recent Belgian study, the ratio of the price of repair vs. to price to replace, an important factor in the decision, may be better than expected. The mentioned study came to the conclusion that - at least for the products investigated (vacuum cleaners and washing machines) - repair was a more economical strategy than replacement as it resulted in a lower lifecycle cost (cost *per annum*).¹⁸ Third, a 2014 Eurobarometer illustrated that 77% of the surveyed consumers indicated that they did consider repair of broken goods before buying new goods. 39% of the

11 J. McCOLLOUGH, 'The disappearing repair trades', 33. *International Journal of Consumer Studies* 2009, p 620.

12 See extensively, J. McCOLLOUGH, 'Consumer Discount Rates and the Decision to Repair or Replace a Durable Product: A Sustainable Consumption Issue', 44. *J Econ Issues* 2010(1), pp 183-204.

13 J. McCOLLOUGH, 44. *J Econ Issues* 2010, p 198.

14 J. McCOLLOUGH, 33. *International Journal of Consumer Studies* 2009, p 620.

15 J. McCOLLOUGH, 33. *International Journal of Consumer Studies* 2009, p 625.

16 More than 1500 'Repair cafés' exist in the meantime: www.Repaircafe.org and repaircafe.org/nieuwe-mijlpaal-1-500-repair-cafes-wereldwijd.

17 www.tournevie.be (accessed Feb 2019), 'the affordable and ecological tool library in Brussel'. The non-profit organization also has its own workshop and organizes 'tool training' courses.

18 Vito, KU Leuven, *Repairability for Energy Related Products*, www.benelux.int/files/7915/2896/0920/FINAL_Report_Benelux.pdf (June 2018).

consumers who eventually disposed of goods indicated that it was too difficult or too expensive to have the goods repaired.¹⁹

Even if the price or the price ratio is not an issue and consumers do want to choose for repair, there are indeed often still practical and legal obstacles consumers (and businesses) face when choosing repair. Overcoming such difficulties should thus have an impact on the number of consumers that opt for repair. The next sections focus on some of these difficulties. These difficulties are present when a consumer turns to the seller to claim repair of goods that are not in conformity (section 2). They may however also be present when a consumer wants to repair goods himself or wants to turn to an independent repairer (section 3).

1.2. Repair by the Seller? Not Stimulated by the Consumer Sales Directive

1.2.1. Repair Under Legal Guarantee

5. LEGAL REMEDIES UNDER THE CONSUMER SALES DIRECTIVE. The first situation we consider is the possibility to turn to the seller for repair in case a good breaks down and the defect is covered by the legal guarantee. In the EU, the Consumer Sales Directive 1999/44 deals with the remedies for non-conformity and sets out the obligations of the seller of a consumer good.²⁰ The - minimum harmonization - system of the directive provides for a hierarchy between the remedies. In case of non-conformity, the consumer can in the first place ask for repair or replacement.²¹ Only if that is not possible within a reasonable time or without significant inconvenience, the secondary remedies of price reduction and rescission come into play.²²

6. REPAIR AS A PRIMARY REMEDY, BUT NOT PREFERRED OVER REPLACEMENT. Although repair is thus one of the primary remedies under the system of the directive, which is a laudable choice in terms of sustainability, repair is not preferred over the alternative primary remedy of replacement by the European legislator. The choice between repair or replacement lies with the consumer in the system of the directive,²³ but there is no

19 ec.europa.eu/commfrontoffice/publicopinion/flash/fl_388_en.pdf.

20 Directive 1999/44/EG of the European Parliament and the Council of 25 May on certain aspects of the sale of consumer goods and associated guarantees, OJ L 171 7 July 1999, eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:31999L0044, p 12 (hereinafter 'Consumer Sales Directive').

21 Art. 3 (3) Consumer Sales Directive.

22 Art. 3 (5) Consumer Sales Directive.

23 Art. 3(3) Consumer Sales Directive; S. JANSEN, 'Hiërarchie der remedies in de consumentenkoop: EU vs VS', *TPR* 2017(1), p 211; M.C. BIANCA, 'Article 3: Rights of the consumer', in M.C. Bianca & S. Grundmann (eds), *EU Sales Directive - Commentary* (Antwerpen/Intersentia 2002), p (149) at 168; D. STAUDENMAYER, 'The Directive on the Sale of Consumer Goods and Associated Guarantees - A Milestone in the European Consumer and Private Law', *ERPL* 2000, p (547) at 554; S. STIJNS, 'De richtlijn consumentenkoop en het Belgische recht', in J. Smits (ed.), *De richtlijn consumentenkoop in perspectief* (Den Haag: Boom Juridische Uitgevers 2003), p (41) at 66.

incentive or obligation for the consumer to opt for repair instead of replacement. Even if the consumer opts for repair, the seller can refuse repair and offer replacement if repair would be ‘disproportionate’. According to the directive, this will be the case if ‘it imposes costs on the seller which, in comparison with the alternative remedy, are unreasonable, taking into account: the value of the goods; the significance of the lack of conformity and whether the alternative remedy could be completed without significant inconvenience to the consumer’.²⁴ Environmental consequences do not seem to play any role in the balancing exercise.

A 2006 Norwegian Supreme Court case²⁵ mentioned by Maitre-Ekern and Dalhammar is quite interesting in this regard. In Norway, consumers also have the right to choose between repair or replacement unless the chosen remedy entails ‘unreasonable costs’ for the seller.²⁶ The case concerned the heels of boots that broke six weeks after purchase. The seller refused replacement as this would entail unreasonable costs. The Supreme Court considered this justified and explicitly referred to environmental reasons: repair was justified as it also appeared the more environmentally friendly option i.a. as there was no market for second-hand shoes in Norway.²⁷ Maitre-Ekern and Dalhammar point out that it remains unclear whether this judgment implies that the seller would have to offer repair in priority in a reverse situation.

As to the situation under EU law, we are not aware of similar cases in which the environmental impact is taken into account in the balancing exercise. It would in any event be a step forward if it would be made explicit under the system of the Consumer Sales Directive that the environmental impact can also be taken into account to determine whether the remedy chosen by the consumer is ‘disproportionate’.

LACK OF ACCOMPANYING MEASURES FACILITATING REPAIR. Moreover, even if the consumer chooses repair and the seller would be willing to repair the goods that are not in conformity, he might not be able to do so because the necessary spare parts are lacking. At EU level, there is a currently a lack of (general) accompanying measures that stimulate repair, including ensuring availability of spare parts and technical manuals (see also below, nr. 14 et seq).²⁸

24 Art. 3 (3) Consumer Sales Directive.

25 Supreme Court Norway 17 February 2006, Rt. 2006, s. 179, cited by E. MAITRE-EKERN & C. DALHAMMAR, in B. Keirsbilck & E. Terry (eds), *Circular Economy and Consumer Protection*.

26 See the contribution of E. MAITRE-EKERN & C. DALHAMMAR, in B. Keirsbilck & E. Terry (eds), *Circular Economy and Consumer Protection*.

27 Thus summarized by E. MAITRE-EKERN & C. DALHAMMAR, in B. Keirsbilck & E. Terry (eds), *Circular Economy and Consumer Protection*.

28 See in detail A. MICHEL, ‘La Directive 1999/44/CE sur la garantie des biens de consommation: un remède efficace contre l’obsolescence programmée?’, *REDC* 2018, p 228. Although some ecodesign requirements were introduced for specific products such as printers, requiring the availability of spare parts during a minimum period (from 3 to 5 years), depending on the model, see A.

Certain Member States have adopted further reaching legislation.²⁹ In France, the ‘*loi Hamon*’ already introduced an obligation in 2014 for producers or importers to inform professional sellers of the period during which certain spare parts would be available. The sellers then had to provide this information to the consumer and an obligation was imposed on the producer or importer to deliver spare parts (to consumers and (independent) repairers in accordance with the information provided.³⁰ The April 2018 ‘*Feuille de Route pour une économie circulaire*’ proposes to impose additional information obligations from January 2020: the reparability would need to be indicated in a clear way on all electronic and electric equipment.³¹

7. REVISION OF THE CONSUMER SALES DIRECTIVE – NO MAJOR CHANGES WITH REGARD TO REPAIR. The Consumer Sales Directive has been under revision since 2015. However, the recently adopted directive 2019/771 on certain aspects concerning contracts for the sale of goods (Consumer Sales Directive 2019) does not provide a major improvement in this regard. Although the recitals mention that ‘*enabling consumers to require repair should encourage a sustainable consumption and could contribute to a greater durability of products*’,³² the seller can still refuse repair on the same grounds as before.

Whether the hierarchy had to be maintained under the new directive was a point of discussion. It is of course correct that the consumer is in the best position

MICHEL, in B. Keirsbilck & E. Terryn (eds), *Circular Economy and Consumer Protection* (Antwerpen: Intersentia, in print), fn. 66.

29 Apart from France, legislation to inform consumers about the availability of spare parts also exists in Italy and Slovenia, and legislation that obliges businesses to keep spare parts or to facilitate access to spare parts exists in Spain, Romania, Portugal, Slovenia and Greece. See Study on the costs and benefits of extending certain right under the Consumer Sales and Guarantees Directive 1999/94/EC; publications.europa.eu/en/publication-detail/-/publication/4d120ad5-deee-11e7-9749-01aa75ed71a1/language-en, pp 19-20.

30 Loi n° 2014-344 du 17 mars 2014 relative à la consommation, *JORF* n° 0065 du 18 mars 2014, p 5400, Article L111-3: « *Le fabricant ou l'importateur de biens meubles informe le vendeur professionnel de la période pendant laquelle ou de la date jusqu'à laquelle les pièces détachées indispensables à l'utilisation des biens sont disponibles sur le marché. Cette information est délivrée obligatoirement au consommateur par le vendeur de manière lisible avant la conclusion du contrat et confirmée par écrit lors de l'achat du bien. Dès lors qu'il a indiqué la période ou la date mentionnées au premier alinéa, le fabricant ou l'importateur fournit obligatoirement, dans un délai de deux mois, aux vendeurs professionnels ou aux réparateurs, agréés ou non, qui le demandent les pièces détachées indispensables à l'utilisation des biens vendus. Un décret précise les modalités et conditions d'application du présent article*».

31 Feuille de route pour une économie circulaire: 50 mesures pour une économie 100% circulaire, www.ecologique-solidaire.gouv.fr/sites/default/files/Feuille-de-route-Economie-circulaire-50-mesures-pour-economie-100-circulaire.pdf (accessed Feb 2019).

32 Recital 48 Directive 2019/771 on certain aspects concerning contracts for the sale of goods and repealing Directive 199/44/EC.

if he has a free choice of remedies, as is currently the case in some Member States³³ and as was proposed by Bureau Européen des Unions de Consommateurs (BEUC) in its position article.³⁴ However, such a free choice does not take into account externalities and is hard to reconcile with sustainability goals. A sustainable consumer law therefore requires a hierarchy of remedies whereby repair would be the primary remedy. It is (at this stage) not realistic nor desirable to impose repair as the sole remedy in all circumstances. However, a clear hierarchy whereby repair would be prioritized over replacement instead of being treated as an alternative of equal merit/value as replacement would at least have an awareness raising effect on both consumers and businesses.³⁵

The Consumer Sales Directive 2019 does moreover not provide for additional information requirements concerning the repairability of goods. The recitals only mention that *‘Insofar as specific durability information is indicated in any pre-contractual statement which forms part of the sales contract, the consumer should be able to rely on them as a part of the subjective requirements for conformity’*.³⁶ An obligation to provide such durability information in order to allow the consumer to make a sustainable product choice is not provided for. The Ecolabel initiative that allows the consumer to make such a choice (see below, section 4) remains a voluntary initiative. This is regrettable since a recent Consumer Market Study³⁷ demonstrated that the provision of specific durability and repairability information can indeed lead the consumer towards choosing more durable and more easily repairable products.³⁸

8. CONSUMER SALES DIRECTIVE 2019 – IMPACT ON LIFESPAN. The original proposal to fully harmonize the legal guarantee period was fortunately abandoned in the Consumer Sales Directive 2019 as finally adopted. This is to be welcomed, as the proposed full harmonization character of the legal guarantee period was likely to have a negative impact on the lifespan of goods. A fully harmonized legal guarantee

33 Greece, Portugal, Slovenia.

34 www.beuc.eu/publications/beuc-x-2016-053_csc_beuc_position_paper_on_tangible_goods_proposal.pdf (accessed Feb 2019).

35 A. MICHEL, *REDC* 2016/2, p 228. Such a clear preference for repair is moreover not completely novel. In Belgium, e.g. a Royal Decree of 9 July 2000 provides that the buyer of a car was entitled to repair in case of a hidden defect. In case that was technically impossible, the parties had to agree which remedy was appropriate to cure the defect. Furthermore, the guarantee also applied to repaired cars (see Art. 4 Royal Decree 9 July 2000 (KB betreffende de vermelding van de essentiële gegevens en de algemene verkoopsvoorwaarden op de bestelbon voor nieuwe voertuigen, at 6.1).

36 Recital 32.

37 Consumer Market Study to support the fitness check of the Consumer Law (lot 3), European Commission DG Justice and Consumers, 2017, publications.europa.eu/en/publication-detail/-/publication/a8d7ca32-772c-11e7-b2f2-01aa75ed71a1/language-en/format-PDF. The study also showed different impacts depending on the way the information was presented.

38 Consumer Market Study to support the fitness check of the Consumer Law (lot 3), European Commission DG Justice and Consumers, 2017, pp 50 et seq.

of 2 years, would have implied that national legislation that provides for longer guarantee periods had to be abolished.³⁹ This would have been regrettable as a longer legal guarantee period has been suggested in several studies as a means to promote a longer lifespan of products.⁴⁰

The Consumer Sales Directive 2019 as finally adopted now fortunately allows Member States to maintain or introduce longer limits. It remains however regrettable that a link between the Consumer Sales Directive 2019 and the specific EU instruments that do promote a longer product lifespan continues to be lacking. It appears indeed from the recitals that the European legislator does not consider the Consumer Sales Directive 2019 to be an appropriate instrument to ensure longer durability of consumer goods: product specific Union legislation is considered the more appropriate approach.⁴¹ This is a missed opportunity. A clear link between the Consumer Sales Directive 2019 and the product specific Union legislation referred to could definitely be made.⁴² The product specific EU legislation (such as the Ecodesign directive) does not provide for private law remedies in case the product related requirements are not met. Although these requirements have traditionally focused on energy efficiency, more recent ecodesign requirements also

39 Five Member States and two EEA countries provide for longer guarantee periods, these countries include Ireland, the UK, Sweden and Finland and the Netherlands. See for an overview K. TONNER & R. MALCOLM, 'How and EU Lifespan Guarantee Model Could Be Implemented Across the EU', study for the EP (January 2017), [www.europarl.europa.eu/RegData/etudes/STUD/2017/583121/IPOL_STU\(2017\)583121_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2017/583121/IPOL_STU(2017)583121_EN.pdf) (accessed Feb 2019), p 19.

40 See K. TONNER & R. MALCOLM, 'How and EU Lifespan Guarantee Model Could Be Implemented Across the EU', p 54; VITO, *Repairability for Energy Related Products*; T. COOPER, 'Inadequate Life? Evidence of Consumer Attitudes to Product Obsolescence', *Journal of Consumer Policy* 2004, pp 421-449. The Study on the costs and benefits of extending certain right under the Consumer Sales and Guarantees Directive 199/94/EC (publications.europa.eu/en/publication-detail/-/publication/4d120ad5-deee-11e7-9749-01aa75ed71a1/language-en, p 61) only briefly mentions the potential environmental benefits of such a measure and comes easily to the conclusion that these are outweighed by the potential disadvantages in terms of lower margins, higher prices and less access to low-quality goods.

41 According to recital (32) Ensuring longer durability of goods is important for achieving more sustainable consumption patterns and a circular economy. Similarly, keeping non-compliant products out of the Union market by strengthening market surveillance and providing the right incentives to economic operators is essential in order to increase trust in the functioning of the internal market. For those purposes, product-specific Union legislation is the most appropriate means of introducing durability and other product-related requirements in relation to specific types or groups of products, using for this purpose adapted criteria. (underlining by the author). Although durability was also introduced as an objective criterion for conformity in the final text of the directive, it is described so vaguely that it might be of little added value when assessing conformity under the Consumer Sales Directive 2019.

42 See in this sense, www.beuc.eu/publications/beuc-x-2016-053_csc_beuc_position_paper_on_tangible_goods_proposal.pdf (accessed Feb 2019), p 9; See K. TONNER & R. MALCOLM, 'How and EU Lifespan Guarantee Model Could Be Implemented Across the EU'.

relate to product durability.⁴³ This is e.g. the case for vacuum cleaners (more specifically the hoses and the motor),⁴⁴ and lamps.⁴⁵ The length of the guarantee could correspond with the durability requirements imposed.⁴⁶ This is unfortunately not the case.

1.2.2. *Refurbished Goods as a Replacement Under the Legal Guarantee?*

9. REPLACEMENT BY REFURBISHED GOODS – A SECOND BEST OPTION? It was argued above that repair is as a rule a more sustainable remedy than replacement. However, replacement by ‘refurbished’ goods or ‘remanufacture’ may come close to repair in terms of sustainability. Remanufacturing is the process whereby a used product is returned into the ‘like-new’ condition: it includes sorting, inspection, disassembly, cleaning, reprocessing and reassembly and it may involve a combination of old and new as parts which cannot be brought back to the original quality may be replaced.⁴⁷

This practice is however not widely spread and moreover the practice is controversial in terms of consumer rights. In the US, the problem rose with regard to the terms of the commercial guarantee of Apple. A class action was started for replacing defect products with refurbished ones where this would not have been clearly indicated in the terms of the commercial guarantee.⁴⁸ In the Netherlands, the question recently rose with regard to the legal guarantee. Apple had decided to replace phones that were not in conformity with ‘refurbished’ ones. The consumers concerned claimed they were entitled to a new phone in case of non-conformity and not to a refurbished one.⁴⁹ The Dutch courts found in several cases that the consumers were indeed entitled to a *new* replacement good and that the seller did not comply with its obligations under the legal guarantee by replacing a defect phone by a refurbished phone.⁵⁰ Under the current

43 See the contribution of A. MICHEL, in B. Keirsbilck & E. Terryn (eds), *Circular Economy and Consumer Protection*.

44 See Annex II, point 7 and 8 Commission Regulation (EU) No 666/2013 implementing Directive 2009/125/EC with regard to ecodesign requirements for vacuum cleaners, OJ July 2013, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013R0666> (accessed Feb 2019), pp 24–34.

45 See Annex II (2) Commission Regulation (EC) No 244/2009 implementing Directive 2005/32/EC with regard to ecodesign requirements for non-directional household lamps, OJ 24 March 2009, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009R0244> (accessed Feb 2019), pp 3–16.

46 www.beuc.eu/publications/beuc-x-2016-053_csc_beuc_position_paper_on_tangible_goods_proposal.pdf (accessed Feb 2019), p 9.

47 Vito, *Repairability for Energy Related Products*, p 18.

48 See *Vicky Maldonado & Joanne Mc Right v. Apple* Case 3:16-cv-04067-WHO and the similar case of *English v. Apple Inc.* Case No. 14-cv-01619-WHO.

49 See for a detailed analysis of these cases V. MAK & E. LUJINOVIC, in B. Keirsbilck & E. Terryn (eds), *Circular Economy and Consumer Protection*.

50 Rb Amsterdam 8 July 2016, ECLI:NL:RBAMS:2016:4197, *TvC* 2017/4, 183 case note V. MAK; Rb Amsterdam 18 April 2017, ECLI:NL:RBAMS:2017:2519. A Dutch ADR body decided in the same

Consumer Sales Directive as interpreted by the European Court of Justice in the *Quelle* judgment,⁵¹ the analysis made by the Dutch courts is probably right. Although *Quelle* focused on the question whether compensation could be required from the consumer in case defect goods were replaced by new goods, the reasoning in that judgment does seem to imply that a consumer is entitled to a new good. The Court indeed held in *Quelle* that no compensation could be demanded for a replacement with new goods and that this did not imply an unjust enrichment as a replacement meant that the consumer merely receives, belatedly, what he was entitled to from the outset.⁵²

The Dutch decisions are also comprehensible in terms consumer protection. Indeed, consumers are probably best off with a new phone, as the quality of the refurbished phones may not always be guaranteed.⁵³ However, neither the reasoning of the Dutch courts nor of the Court of Justice takes sustainability arguments into account. A compromise solution, which would however require a change of EU legislation, could therefore be to allow a seller to replace a defect product by a refurbished phone or other remanufactured good under the legal guarantee, but to oblige him to give the consumer a new (2 year) guarantee period in such case. An additional guarantee period could help to overcome the lack of trust consumer may have in refurbished phones or other remanufactured goods. Such an obligation would not be a complete novelty as, at national level, several Member States currently already provide for a new guarantee period after repair or replacement.⁵⁴

1.2.3. Commercial Guarantee to Stimulate Repair?

10. COMMERCIAL GUARANTEES AND SUSTAINABILITY. It could be argued that even if the legal guarantee does not sufficiently stimulate repair or, more in general a prolonged lifespan of goods, undertakings can still promote the longer lifetime of their products by offering a commercial guarantee. Indeed, such commercial guarantees can be a marketing tool to promote products with a longer expected lifespan than the legal

sense: see Geschillencommissie 30 May 2017, www.degeschillencommissie.nl/consumenten/uitsprakenoverzicht/108944/commissie-gaat-uitvan-een-gebrek-aan-het-toestel-dat-niet-door-de-consument-is-veroorzaakt (accessed Feb 2019).

51 ECJ 17 April 2008, C-404/06, ECLI:EU:C:2008:231, *Quelle*.

52 Para. 41.

53 A study by Test-Achats confirmed that problems may occur with refurbished phones. Half of the (18) tested refurbished iPhones, showed important defects, www.test-aankoop.be/hightech/gsm-smartphones/nieuws/een-op-twee-refurbished-iphones-deugt-niet, (October 2016). Only one phone (refurbished by Apple) was flawless.

54 See Study on the costs and benefits of extending certain rights under the Consumer Sales and Guarantees Directive 1999/94/EC; publications.europa.eu/en/publication-detail/-/publication/4d120ad5-deee-11e7-9749-01aa75ed71a1/language-en, p 14. This is more specifically the case in Austria, Croatia, Denmark (3 years for repair), Estonia, Greece. Some other countries only provide for a new guarantee period in case of replacement (Hungary, Poland, Portugal, Slovakia, Spain).

guarantee period of 2 years. As Vandemaele points out in her doctoral thesis, one of the functions of a guarantee is exactly to signal the quality of a good.⁵⁵

However, contractual freedom mostly reigns with regard to commercial guarantees and commercial guarantees are currently not necessarily used to prolong the lifespan of goods, through repair or otherwise. The current legislative framework mainly imposes information requirements. The content of a commercial guarantee remains largely unregulated. The use of commercial guarantees in a non-sustainable way may therefore be perfectly legal. Certain companies now for example offer a ‘direct replace guarantee’: ‘do not wait for repair, but get your new product for free immediately’. This is a perfectly legal practice, but it is clear that this does not stimulate a sustainable consumption pattern.

Commercial guarantees are furthermore sometimes used to hinder independent repair or repair by the consumers themselves. Thus, some commercial guarantees determine that the commercial guarantee can no longer be invoked in case of repair by an independent repairer, e.g. in case a screen of a phone is repaired in an independent repair shop. Although sellers or producers may legitimately want to exclude the risk of a badly executed repair by a third party, such widely formulated clauses also hinder the development of a network of independent repair shops. As mentioned, the regulation of commercial guarantees in the Consumer Sales Directive is limited.⁵⁶ Such commercial guarantees can in any event not affect the consumer’s *legal* rights, including the right to demand repair of the seller in case of non-conformity.⁵⁷ Clauses or stickers mentioning ‘*Warranty void if seal broken*’ are therefore contrary to the provisions of the Consumer Sales Directive to the extent that they pertain to affect the consumer’s legal rights. They could also be

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- 55 S. VANDEMAELE, *Commerciële garanties in de verschillende koopregimes*, PhD thesis KU Leuven, 2019; W. BOULDING & A. KIRMANI, ‘A Consumer-side Experimental Examination of Signaling Theory: Do Consumers Perceive Warranties as Signals of Quality?’, *Journal of Consumer Research* 1993, p (111) at 112; B.L. CONNELLY, S.T. CERTO, R.D. IRELAND & C.R. REUTZEL, ‘Signaling Theory: A Review and Assessment’, *Journal of Management* 2011, p (39) at 43; H. LI, Y. FANG, Y. WANG, K. LIM & L. LIANG, ‘Are All Signals Equal? Investigating the Differential Effects of Online Signals on the Sales Performance of e-Marketplace Sellers’, *Information Technology & People* 2015, p (699) at 702; C. TWIGG-FLESNER, *Consumer Product Guarantees* (Aldershot: Ashgate 2003), p 55.
- 56 Art. 6 Consumer Sales Directive. The regulation of commercial guarantees in the Consumer Sales Directive 2019 is slightly more extensive but still limited. The main novelty is the liability for repair or replacement of a producer who offers a ‘commercial guarantee of durability’ during the entire period of such guarantee (art. 17 Consumer Sales Directive 2019). Offering a guarantee of durability remains however the free choice of a producer. .
- 57 Art. 6 (2) and 7 Consumer Sales Directive. Contractual clauses that exclude the consumer’s rights under the legal guarantee if the consumer of third parties have repaired a good are in any event void (see Art. 7 (1) Consumer Sales Directive).

challenged as unfair under the Unfair Contract Terms Directive⁵⁸ and they could be considered misleading on the basis of the Unfair Commercial Practices Directive.⁵⁹

However, a contractual clause that does not allow a consumer to invoke certain (additional) *contractual* rights under a commercial guarantee in case of repair by an independent repairer do not seem to be automatically void or *per se* unfair under the Unfair Contract Terms Directive. As commercial guarantees are given on a voluntary basis, it is no so evident to install an absolute prohibition for such clauses in commercial guarantees. Other measures (such as financial incentives, see below) could be used to promote repair over replacement. In addition, the suggestion by TONNER and MALCOLM in their study for the European Parliament merits consideration.⁶⁰ These authors suggest to impose an obligation on producers to provide a commercial guarantee in which the producer has to indicate the lifespan of the product concerned and in addition he must indicate whether or not he guarantees the fitness of the product during its lifespan.⁶¹ Although their proposal mainly creates an obligation on the producer to provide additional information without a direct impact on the right to repair, such obligation would at least provide an incentive for the producer to invest in and guarantee a longer lifespan of products.

Their proposal was not taken up in the Consumer Sales Directive 2019.

58 On the basis of the general norm (Art. 3 Unfair Contract Terms Directive). National implementing laws may even be stricter. Thus, the Belgian Code of Economic Law provides for a black list of terms that are prohibited in all circumstances. Art. VI.83, 14 ° Code of Economic Law prohibits clauses that reduce or exclude the legal obligation to deliver a good in conformity with the contract.

59 In the US, the Federal Trade Commission has recently sent warning letters to a number of companies using such statements and stickers (press release 10 April 2018, www.ftc.gov/news-events/press-releases/2018/04/ftc-staff-warns-companies-it-illegal-condition-warranty-coverage) (accessed Feb 2019). The FTC staff expressed concerns about statements that consumers must use specific parts or service providers not to avoid their warranties. The FTC considers such statements to be generally prohibited by the Magnuson-Moss Warranty Act, and in addition they may be deceptive.

60 K. TONNER & R. MALCOLM, 'How and EU Lifespan Guarantee Model Could Be Implemented Across the EU', p 55.

61 Tonner and Malcolm propose to insert an article along the following lines into the Consumer Sales Directive: *Article 15a Commercial guarantees for lifespan*

1. The producer of a technical product shall (1) guarantee to the consumer the fitness of the product for such foreseeable minimum lifespan, as is normal in goods of the same type, and shall indicate the duration of this lifespan, or (2) clearly indicate that he does not guarantee the fitness of the product during its lifespan.

This information shall be made available to the consumer at the time where he takes an informed transactional decision. The producer shall inform the consumer whether the guaranteed lifespan is shorter or longer than the limitation period according to Article 14. Article 15 [commercial guarantees] is applicable.

2. If the producer does not fulfil his obligations according to no. 1, he has the same obligations to the consumer as the seller.'

1.3. *Independent Repair/DIY Repair?*

11. INDEPENDENT REPAIR/DIY REPAIR. It follows from the previous section that the consumer sales directives do not stimulate repair by the seller as a remedy. However, even if the hierarchy of remedies under the legal guarantee would be altered and even if stricter rules on commercial guarantees would be adopted, there will always be situations in which the consumer cannot invoke any remedy as against the seller. The defect may only appear when the legal guarantee period has lapsed and it may not be covered by the legal or commercial guarantee. In such a case, the consumer still has the possibility to repair the good himself⁶² or to have it repaired by an independent repairer,⁶³ rather than opting for a replacement. This in any even the theory. In practice, a number of obstacles hinder DIY and independent repair.

These obstacles may be of a practical and/or legal nature. They include the lack of availability of spare parts or the lack of available spare parts at a reasonable price, the presence of glued parts or of other parts that hinder disassembly. Apple's patented 'pentalobe security screws' are a notorious example in this regard.⁶⁴ These 'security screws' require special screwdrivers to open the device thus hindering independent or DIY repair.

Furthermore, the lack of publicly available technical information in the form of manuals or repair information is especially problematic for electronic devices.⁶⁵ 'Reverse engineering', i.e. dissembling an object to extract the necessary knowledge, is only a second best solution as it is costly and time-consuming, especially given the vast number of different electronic devices. In addition, intellectual property ('IP') rights are sometimes invoked by companies to prevent consumers and independent repairers from accessing their electronic devices. Some of these issues and their possible solutions are addressed in more detail below.

12. IP RIGHTS – DIGITAL MILLENNIUM COPYRIGHT ACT – THE US. IP rights have thus been used in the US to prevent users and repairers from accessing devices and repairing them. The '*Digital Millennium Copyright Act*' ('DMCA') was adopted in 1998 to allow producers to protect digital content. The Act prohibited to circumvent technical protection measures ('TPMs') used by copyright owners to protect access to their

62 Cf. the increasing popularity of 'Repair cafés', more than 1500 worldwide, www.Repaircafe.org and repaircafe.org/nieuwe-mijlpaal-1-500-repair-cafes-wereldwijd/.

63 Or he may of course turn to the seller to have the good repaired against payment.

64 The use of these screws is however not limited to Apple, see ifixit.org/blog/9905/bit-history-the-pentalobe/.

65 See Ellen Mc Arthur Foundation, *Empowering Repair* (October 2016), www.ellenmacarthurfoundation.org/assets/downloads/ce100/Empowering-Repair-Final-Public1.pdf (accessed Feb 2019).

works.⁶⁶ Although that is as such a justifiable aim, the balance between the need to protect content and the rights of access of end users for lawful uses seemed to be lost.⁶⁷ Practices that were considered legitimate beforehand (such as using ‘reverse engineering’ to repair digital devices), now became illegal.⁶⁸

In the US, the far reaching limitations on the rights of end-users by the DMCA was somewhat attenuated in the US by the ‘*Unlocking Consumer Choice and Wireless Competition Act*’ of 2014. Every 3 years, the US Copyright office now recommends to the Librarian of Congress that he should grant certain specific exemptions after examining whether the law bars lawful uses of the works. The increased number of exemptions to the prohibition on circumvention of access control technologies⁶⁹ does once more enable certain activities of reverse engineering that can be necessary to repair goods.⁷⁰ The complexity of the legislation and of the exemptions makes it however difficult for reverse engineers to be certain that they are engaging in non-infringing activities.⁷¹

The parallel European legislation that was adopted in 2001⁷² did not give as far reaching rights to producers and focused rather on control of unauthorized use of copyright protected works rather than access itself.⁷³

13. IP RIGHTS - DESIGN - TRADEMARK - COPYRIGHT PROTECTION OF MANUALS. Not only TPMs may make repair difficult. Manufacturers, especially in the car industry have also invoked design rights,⁷⁴ to make it difficult to repair goods with replacement parts that were not made by the Original Equipment Manufacturer (OEM). Although

66 Section 1201 Digital Millennium Copyright Act of 1998.

67 Zie A. FOROUCI, M. ALBIN & S. GILLARD, ‘Digital Rights Management: A Delicate Balance Between Protection and Accessibility’, 28. *Journal of Information Science* 2002(5), pp 389-395.

68 J.D SULLIVAN & T.M. MORROW, ‘Practicing Reverse Engineering in an Era of Growing Constraints Under the Digital Millennium Copyright Act and Other provisions’, *Albany Law Journal of Science & Technology* 2003, p 6. See for some extreme examples in which the DMCA was used to e.g. remove a blog of some hobbyists who adapted the steering system of their calculators, www.eff.org/pages/unintended-consequences-fifteen-years-under-dmca (accessed Feb 2019).

69 See Library of Congress, Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies (October 2015), www.gpo.gov/fdsys/pkg/FR-2015-10-28/pdf/2015-27212.pdf (accessed Feb 2019).

70 P. SAMUELSON, ‘New Exemptions to Anti-Circumvention Rules’, 59. *Communications of the ACM* (March 2016), no. 3.

71 P. SAMUELSON, 59. *Communications of the ACM* (March 2016), no. 3.

72 Art. 6 Dir. 2001/29/EC on the harmonization of certain aspects of copyright and related rights in the information society, OJ 22 June 2001, <https://eur-lex.europa.eu/legal-content/FR/TXT/?uri=celex%3A32001L0029> (accessed Feb 2019) obliges Member States to provide adequate legal protection against the circumvention of technological measures.

73 W. GUAN, ‘Copyright Anti-Circumvention & Free Trade’, 52. *Journal of World Trade* 2018(2), pp 257-279.

74 See e.g. ECJ 20 December 2017, ECLI:EU:C:2017:992, Cases C-397/16 and C-435/16, *Acacia*.

the so-called ‘repair clause’ in the Community Design Regulation⁷⁵ limits the possibilities to invoke Community design protection in case of repair,⁷⁶ that clause does not solve all problems. National design laws which do not provide for such a clause continue to allow protection and enforcement of design rights covering spare parts.⁷⁷ The mentioned repair clause also does not apply to trademarks,⁷⁸ so that it is not allowed for manufacturers of spare parts to reproduce registered trademarks on their products simply because that use of the trade mark would lead to the restoration of the original appearance of the complex product.⁷⁹

Quite an important number of producers furthermore refuse to make repair information available. In case such information is placed online by third parties, the copyright protection of such manuals can be successfully invoked by the producers (both in the US and in the EU).⁸⁰ To the extent that ‘reverse engineering’ is not prevented by other IP rights,⁸¹ this process in theory allows independent

75 Council Regulation (EC) No 6/2002 of 12 December 2001 on Community designs (‘Design Regulation’), OJ 5 January 2002, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:32002R0006> (accessed Feb 2019).

76 See Art. 110 (1) Design Regulation No 6/2002 ‘a Community design shall not exist for a design which constitutes a component part of a complex product [...]for the purpose of the repair of that complex product so as to restore its original appearance’ and Art. 14 of the Designs Directive (Directive 98/71/EC on the legal protection of designs OJ 28 October 1998 L 289).

77 H. HARTWIG, ‘Spare Parts Under European Design and Trade Mark Law’, 11. *Journal of intellectual property law & practice* 2016(2), p 121.

78 ECJ 6 October 2015, ECLI:EU:C:2015:680, C-500/14, *Ford Motor v. Wheeltrims*.

79 ECJ 6 October 2015, fn. 80. It is however allowed to use a trade mark to inform the public that one carries out the repair and maintenance of goods covered by that trade mark or that one is a specialist in the sale or the repair and maintenance of such goods, unless the mark is used in a way that may create to the impression that there is a commercial connection between the other undertaking and the trade mark proprietor, see ECJ 23 February 1999, ECLI:EU:C:1999:82, C-63/97, *BMW v. Deenik* (para. 64).

80 www.theguardian.com/sustainable-business/copyright-law-repair-manuals-circular-economy (accessed Feb 2019). For the EU, see in particular ECJ 11 August 2010, ECLI:EU:C:2012:259, C-406/10, *SAS Institute Inc v. World Programming Ltd*: the parts of a user manual that contain some of the elements which are the expression of the intellectual creation of the author of the work are protected by copyright.

81 Including copyright protection for software. Here, the ECJ has accepted that certain reverse engineering practices can be performed by licensees on computer programs that are copyright protected. See ECJ 2 May 2012, ECLI:EU:C:2012:59, C-406/10, *SAS Institute Inc. v. World Programming*: ‘a person who has obtained a copy of a computer program under a licence is entitled, without the authorization of the owner of the copyright, to observe, study or test the functioning of that program so as to determine the ideas and principles which underlie any element of the program, in the case where that person carries out acts covered by that licence and acts of loading and running necessary for the use of the computer program, and on condition that that person does not infringe the exclusive rights of the owner of the copyright in that program’, para. 62. And see for more information, P. CIANCARINI, D. RUSSO, A. SILLITTI & G. SUCCI, ‘Reverse Engineering: A European IPR Perspective’ (2016), www.researchgate.net/publication/303773364_Reverse_engineering_a_European_IPR_perspective (accessed February 11 2019).

repairers to obtain the technical information required. Reverse engineering is however time-consuming and therefore costly and the wide variety of available consumer goods makes it impossible to perform this task for all available products and models.

14. REPAIR LEGISLATION AS A SOLUTION? VEHICLES. In certain sectors, including the vehicle industry, specific legislation has been adopted to tackle this problem. Thus e.g. in the US, the state of Massachusetts adopted ‘*automotive repair legislation*’ in 2012.⁸² That legislation guarantees that independent repairers and owners have access to the same diagnostic and repair information as authorized repair providers, while respecting trade secrets. This state legislation has been the basis for a national Memorandum of Understanding committing vehicle manufacturers also in other states to comply with the requirements of the Massachusetts legislation.⁸³

In the EU, Regulations 715/2007 and 595/2009 regulate access to such information.^{84,85} Article 6(1) of Regulation 715/2007 thus provides that manufacturers must provide access to vehicle repair and maintenance information to independent operators ‘*through websites using a standardised format in a readily accessible and prompt manner, and in a manner that is non-discriminatory compared to the provision given or access granted to authorised dealers and repairers*’. They must also make training available to independent operators and authorized dealers and repairers. Although the EU regulation of access to vehicle repair and maintenance information was not in the first place inspired by sustainability goals, but rather wanted to ensure there was still competition on the lucrative after-

The authors point out that the exact boundaries of legal software reengineering remain subject to discussion.

82 malegislature.gov/Laws/GeneralLaws/PartI/TitleXV/Chapter93K; E. SCHULLER, ‘Who has the Right to Repair?’, 22. *Fleet Maintenance* 2018(1), pp 10-12, 14, 16.

83 www.autonews.com/article/20140125/RETAIL05/301279936/automakers-agree-to-right-to-repair-deal; see for the text of the memorandum of 15 January 2014: www.autocare.org/workarea/DownloadAsset.aspx?id=1440&gmssopc=1 (accessed Feb 2019).

84 Regulation (EC) No 715/2007 of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information, OJ 29 June 2007, <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32007R0715>. See also Report from the Commission on the operation of the system of access to vehicle repair and maintenance information established by Regulation (EC) No 715/2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information, COM(2016) 782 final (accessed Feb 2019).

85 Regulation (EC) No 595/2009 of 18 June 2009 on type-approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) and on access to vehicle repair and maintenance information and amending Regulation (EC) No 715/2007 and Directive 2007/46/EC and repealing Directives 80/1269/EEC, 2005/55/EC and 2005/78/EC, <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009R0595> (accessed Feb 2019).

market,⁸⁶ the regulations does contribute to a right to repair at competitive prices and should therefore also have environmental benefits.⁸⁷

15. REPAIR LEGISLATION AS A SOLUTION – DIGITAL DEVICES? In the meantime the plea to adopt similar legislation with a far broader scope of application is getting more and more support. In the US, such ‘*right to repair*’ bills with a broader scope of application have been proposed in several states.⁸⁸ The content of these proposals is quite similar and seems inspired by the repair legislation in the automotive industry. If we take New Hampshire as an example, the ‘*House Bill 1733-FN*’ ‘*Act relative to digital product repair*’ would require manufacturers of digital electronic products sold after a certain date to make available to independent repair facilities and owners the same diagnostic and repair information that it makes available to its authorized repair providers and this free of charge.⁸⁹ Service parts should also be made available for product owners at reasonable prices (*‘fair and reasonable terms’*). The bill furthermore enumerates a number of factors that can be taken into account to determine the ‘*fair and reasonable*’ character of the terms.⁹⁰ It also makes clear that these obligations do not mean that traders must divulge trade secrets.⁹¹

It might not surprise that there is opposition against the adoption of such legislation by manufacturers. According to some manufacturers, the adoption of the mentioned regulation would pose threats in terms of safety and it would create additional risks of hacking.⁹² Although security issues definitely need to be taken

86 2016 Commission Report on the operation of the system of access to vehicle repair and maintenance information (fn. 86), p 4.

87 See Study on the operation of the system of access to vehicle repair and maintenance information, 2014, publications.europa.eu/en/publication-detail/-/publication/c2c172a5-3f49-4644-b5bb-c508d7532e4a/language-en/format-PDF/source-69056993 and 2016 Commission Report on the operation of the system of access to vehicle repair and maintenance information (fn. 86), p 3.

88 ifixit.org/blog/8780/apple-right-to-repair/; repair.org/legislation/. Similar legislation would have been proposed in 18 states, repair.org/legislation/ (accessed 14 November 2018).

89 See legiscan.com/NH/text/HB1733/id/1657713.

90 Section 358 T: 1. V ‘*Fair and reasonable terms*’ means terms where consideration is given to relevant factors, including but not limited to:

(a) *The net cost to the authorized repair provider for similar parts obtained from manufacturers, less any discounts, rebates, or other incentive programs;*

(b) *The cost to the manufacturer of preparing and distributing the parts or product, excluding any research and development costs incurred in designing and implementing, upgrading, or altering the product, but including amortized capital costs for the preparation and distribution of the parts; and*

(c) *The price charged by other manufacturers for similar parts or products.’*; legiscan.com/NH/text/HB1733/id/1657713

91 Section 358-T:7, legiscan.com/NH/text/HB1733/id/1657713.

92 See e.g. the arguments invoked by John Deere, www.theguardian.com/environment/2017/mar/06/nebraska-farmers-right-to-repair-john-deere-apple (accessed Feb 2019).

into account as well as the need to protect trade secrets⁹³ when adopting ‘right to repair/fair repair’ legislation, this should not provide an unlimited justification for manufacturers to refuse independent repairers access to repair and diagnostic information. At EU level, a draft regulation on electronic displays of 2016,⁹⁴ goes somewhat in that direction as it proposes to make it obligatory for certain categories of products to make repair information available, but it has been met with fierce opposition. The adoption of such legislation definitely requires a thorough debate and careful balancing of the rights of manufacturers and users/independent repairers. But broader repair legislation as has been proposed in New Hampshire and other US states is definitely a policy tool that can stimulate the repair industry and thus more sustainable business models and that allows to not only take the interests of businesses and consumers into account but also sustainable development as furthered by Article 11 TFEU. The experience with the existing EU automotive access to repair and maintenance regulation can be used to develop ‘fair repair’ legislation with a broader scope of application.

16. TAX INCENTIVES FOR REPAIR. Repair could furthermore be stimulated through tax incentives.⁹⁵ Several options can be considered, such as a differentiated levy in function of reparability; tax deductions for repair costs or a reduced Value added tax (VAT). In Sweden the latter two options have already been adopted: for some repairs in the home tax deductions are possible (care of clothes and home textiles; repair and maintenance of data and information technology equipment, repair and maintenance of appliances)⁹⁶ and in addition, a reduced VAT (from 25% to 12%) applies for repair of bicycles, shoes, leather clothes and household linen.

1.4. Labels and Repair

17. In the absence of further reaching European and national hard law initiatives, self-regulation and soft law also has a role to play. Several (eco)labels exist that can assist the consumer in making a sustainable choice when buying a product. Such

93 As protected by Directive 2016/943/EU on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure OJ 15 June 2016, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016L0943> (accessed Feb 2019).

94 Resolution on a longer lifetime for products: benefits for consumers and companies, www.europarl.europa.eu/news/en/press-room/20170629IPR78633/making-consumer-products-more-durable-and-easier-to-repair; https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2016-7108187_en (accessed Feb 2019).

95 See A. MICHEL, ‘La Directive 1999/44/CE sur la garantie des biens de consommation: un remède efficace contre l’obsolescence programmée?’, *REDC* 2016/2, 229 and see also J. EYCKMANS, in B. Keirsbilck & E. Terryn (eds), *Circular Economy and Consumer Protection*.

96 See the contribution of E. MAÏTRE-EKERN & C. DALHAMMAR, in B. Keirsbilck, E. Terryn (eds), *Circular Economy and Consumer Protection*.

labels also help businesses that want to promote their sustainable products as they have a signalling function that is similar to a commercial guarantee. In terms of promoting repair, the impact of these labels may only be limited or at least indirect as – apart from the iFixit repairability score – most of these labels take various sustainability criteria into account of which repairability may only be one.

At EU level, the voluntary EU Ecolabel facilitates communication by traders on the environmentally friendly character of their goods and services (since 1992).⁹⁷ Specific criteria need to be complied with in order to use the label. Different criteria have been developed for different products. Repairability criteria (including instruction on repair, upgradability, ease of disassembly, spare parts supply) are included for some products. At this point in time, criteria have only been developed for a relatively limited number of products.⁹⁸

At national level, several similar initiatives exist. The Blue Angel (*der Blaue Engel*) label in Germany is the ecolabel of the German federal government (since 1978). Like the EU Ecolabel, it sets standards for environmentally friendly product design⁹⁹ and aims to help consumers to make their purchasing decisions on environmental aspects.¹⁰⁰ Criteria are developed per product or product group.¹⁰¹ For a number of product groups (but not all), criteria related to repairability¹⁰² are imposed in order to obtain the label.¹⁰³ The Nordic Swan Ecolabel is a similar system for the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) that was established in 1989 by the Nordic Council.¹⁰⁴ Like the Blue Angel label, it wants to enable customers to choose the environmentally best goods and services. Depending on the product concerned, one or more criteria related to repairability need to be complied to obtain the label.¹⁰⁵

Private initiatives like ‘iFixit’ focus even more on repairability. iFixit was started in 2003 in the US and develops and shares manuals to repair consumer devices.¹⁰⁶ iFixit provides for repairability scores for different (mainly electronic)

97 Regulation (EC) No 66/2010 of 25 November 2009 on the EU Ecolabel regulates the functioning of the EU Ecolabel system. It is managed by the European Commission with bodies from the Members States and other stakeholders, ec.europa.eu/environment/ecolabel/the-ecolabel-scheme.html.

98 Vito, *Repairability for Energy Related Products*, p 22. See also www.beuc.eu/publications/beuc-x-2017-099_sustainable_europe_whatstill_needs_to_be_done.pdf (accessed Feb 2019), p 13.

99 www.blauer-engel.de/en (accessed Feb 2019).

100 www.blauer-engel.de/en/blue-angel/what-is-behind-it (accessed Feb 2019).

101 www.blauer-engel.de/sites/default/files/vergabegrundlage_uebersicht_nach_branchen_en.pdf (accessed Feb 2019).

102 I.a. ease of disassembly, spare parts supply.

103 E.g. for mobile phones, PC, TV, vacuum cleaners, coffee machines. See Vito, *Repairability for Energy Related Products*, p 21.

104 www.nordic-ecolabel.org/the-nordic-swan-ecolabel/ (accessed Feb 2019).

105 See Vito, *Repairability For Energy Related Products*, p 22.

106 www.ifixit.com/Info/background (accessed Feb 2019).

products.¹⁰⁷ Engineers disassemble and analyse the devices and award them a score between 0 and 10. A device scoring a 10 will be relatively inexpensive to repair because it is easy to disassemble and has a service manual available. Further criteria are the difficulty of opening the device, the types of fasteners and the complexity to replace major components. Upgradability, use of non-proprietary tools for servicing and component modularity are also taken into account.¹⁰⁸

18. While these national and private initiatives are to be welcomed as they can help a consumer to make a sustainable choice and to opt for a repairable product, not all faith can be put in these soft law initiatives. The above enumeration of initiatives is not exhaustive and apart from the mentioned, trustworthy initiatives, there are also labels that do not guarantee an independent verification nor the use of relevant environmental criteria.¹⁰⁹ This proliferation of labels risks to confuse consumers and to undermine their confidence in these labels. ‘Greenwashing’ is indeed increasingly popular. International initiatives to coordinate and ‘label’ the different labels exists,¹¹⁰ but one may wonder whether the average consumer knows where to check whether the (eco)label used is indeed trustworthy and reliable. Stronger tools (hard law) are therefore needed to complement these soft law initiatives.

2. Concluding Remarks

19. ‘Humans’ have only (fairly) recently become ‘consumers’ as Trentmann set out in his research and it was only in the 18th century that SMITH pointed out the social and psychological impulses that push people to accumulate objects and gadgets: they started looking at the objects obtained as ‘means of happiness’, thus leaving behind the negative connotation that had accompanied obtaining

107 See e.g. www.ifixit.com/tablet-repairability (accessed Feb 2019).

108 www.ifixit.com/tablet-repairability (accessed Feb 2019). See also Vito, *Repairability for Energy Related Products*, p 24, a qualitative scoring system would be under further development in cooperation with TU Delft.

109 The establishment of GEN (Global Ecolabelling Network), that classifies ecolabels into different categories confirms this problem and the need for set of principles to test an environmental claim. GEN classifies the different ecolabel programmes and ‘type 1’ ecolabels guarantee independent verification that a product complies with multiple environmental criteria whereby the entire lifecycle of a product is considered. See Annual Report GEN 2016, view.publitas.com/global-ecolabelling-network/gen-annual-report-2016/page/6-7.

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frivolous things for centuries.¹¹¹ Indeed, in ancient times, consumption was essentially negatively regarded.¹¹² The Latin ‘*consumere*’, as it found its way into European languages, came to mean ‘using up, wasting away, finishing’.¹¹³ Considering consumption no longer as wasteful, or as ruining a community, but rather as a way to make nations richer, more civilized and stronger can be traced back to the 18th century.¹¹⁴ We may now once more have entered an era in which people start to realize that consumption does not necessarily bring happiness; that it has externalities beyond the instant gratification it provides and that there are limits to the wasting that seems inherent to our current consumption patterns.

Different and more circular business models try to limit those externalities and can help to achieve a sustainable economy along the lines of Kate Raworth’s alternative ‘doughnut’ economic model: a model that aims to ensure that everyone on earth has access to their basic needs, such as adequate food and education, while not limiting opportunities for future generations by protecting our ecosystem and taking into account the planetary boundaries.¹¹⁵

To enable and incentivize such more circular business models, regulation definitely has a role to play and this is also the case for ‘traditional’ consumer law. If consumer law wants to stay relevant, consumer law must not only take into account consumer protection aims but it should balance them with sustainability goals as this is in the long term interest of the consumers it aims to protect.

This contribution focused on repair as a means to prolong the lifespan of goods and comes to the conclusion that neither in the EU nor in the US, a real ‘right’ to repair exist. There are obstacles to repair that are both of a practical and of a legal nature. Different policy measures can however be adopted to stimulate repair. These range from the stage of production where ecodesign requirements (including reparability criteria) could be adopted for a broader range of products, to the pre-contractual stage in which additional information could be provided on reparability and availability of spare parts, over the contractual stage in which repair could be made the primary remedy. In addition, independent and DIY repair can be stimulated by imposing obligations to ensure access to repair and diagnostic information and to spare parts on similar terms as manufacturers’ own repairers.

111 See A. SMITH’s 1759’s *The Theory of Moral Sentiments*, as cited by F. Trentmann, *Empire of Things: How We Became a World of Consumers, from the Fifteenth Century to the Twenty-First* (Allen Lane 2016).

112 F. Trentmann, *Empire of Things: How We Became a World of Consumers, from the Fifteenth Century to the Twenty-First* (Allen Lane 2016) (accessed Feb 2019).

113 F. Trentmann, *Empire of Things: How We Became a World of Consumers, from the Fifteenth Century to the Twenty-First* (Allen Lane 2016) (accessed Feb 2019).

114 F. Trentmann, *Empire of Things: How We Became a World of Consumers, from the Fifteenth Century to the Twenty-First* (Allen Lane 2016) (accessed Feb 2019).

115 K. RAWORTH, *Donought Economics. Seven Ways to Think Like a 21st Century Economist* (Penguin 2017), p 373.

Furthermore, tax incentives, both in the form of deductions for repair services or in the form of lower VAT can be considered.

Finally, awareness raising is necessary if we want consumers to play their role in achieving more sustainable/circular business models and to act once again as ‘citizens’ or ‘humans’, capable of addressing a wider range of interests rather than as consumers solely interested in their own position in the market place.¹¹⁶

116 See J. LEWIS et al., *Citizens or Consumers? What the Media Tell Us About Political Participation* (Maidenhead: Open University Press 2005), cited by K. RAWORTH, *Donought Economics* (Penguin 2017), p 102, see also pp 99-102 of the same book on the changed attitude of people when treated as ‘consumers’ (stronger identification with notions as wealth, status and success) rather than as ‘citizens’.