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Balancing Intellectual Property Rights and Sustainability

Legal criteria for sustainable reuse, repair
and refurbishment of IP-protected goods, and
how to assess them

Bespalova Natalia

DEPARTMENT OF BUSINESS LAW

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Abstract

This thesis explores the intersection of intellectual property rights (IPRs) and sustainability, particularly focusing on the repair, reuse, refurbishment, recycling, and upcycling of IP-protected goods. The lack of a defined legal framework specifically addressing the balance between IPRs and sustainable practices in the European Union forms the core of this investigation. The study proposes a framework of objective, measurable criteria to assess when the reuse and repair of goods do not infringe on the IP rights of the original creators, facilitating a sustainable use of resources while protecting intellectual property.

Through doctrinal research and analysis of EU case law and legislation, this thesis examines existing barriers posed by IPRs to sustainable practices and suggests modifications to the current legal frameworks to better support sustainability. It argues that the existing legal apparatus often prioritizes the protection of IPRs at the expense of environmental and societal well-being. By integrating case studies and legal analysis, the research highlights how a more nuanced application of IP law can contribute to a circular economy, where repair and sustainability are not only encouraged but also legally facilitated.

This thesis contributes to academic and practical discussions on the potential for IP law to adapt to the demands of sustainable development. It proposes specific criteria that could be used by judicial bodies to assess the legality of repairing and refurbishing IP-protected goods, thereby providing legal clarity and support for sustainability-oriented practices.

Keywords: Intellectual Property Rights, Sustainability, Right to Repair, EU Law, Circular Economy, Environmental Law, Consumer Rights.

Abbreviations

CJEU - Court of Justice of the European Union

EU - European Union

IBCs - Intermediate Bulk Containers

IPR - Intellectual property rights

SMEs - Small and Medium-sized Enterprises

TRIPS - Trade-Related Aspects of Intellectual Property Rights

UNEP - United Nations Environment Programme

WIPO - World Intellectual Property Organisation

WIPO - World Intellectual Property Organization (listed twice due to slight variation in naming)

WTO - World Trade Organisation

1 Introduction

1.1 Background

The idea of “sustainable development” has been around for centuries, especially in activities related to forestry and agriculture, where the understanding of wise use of resources was a matter of survival of future generations. However, it was not until recently that this concept crystalized and passed the limits of environmental protection. It received its first definition in 1987 in the publication of the Brundtland Report, “Our common future”, describing it as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.¹ This definition brought the term into mainstream discussions on environmental policy and economic development. The United Nations (UN) Conference on the Environment and Development in 1992 further cemented the importance of sustainable development on the international agenda.

Later, in 2015 during the United Nations Summit for Sustainable Development Agenda 2030 was adopted, setting 17 Sustainable development goals, along with the indicators on their achievement. While the Agenda recognizes the commitment of the members to work towards the Goals, it is not an international treaty, therefore lacking a binding force and leaving up to the member countries to define the ways and means of completing them.

The 12th Goal is Responsible Consumption and Production, subdivided into target 12.5, aiming to reduce waste generation through prevention, reduction, recycling and reuse and target 12.6, which is to encourage companies, especially large transnational companies to adopt sustainable practices and to integrate sustainability information into their reporting cycle. The performance indicators for these subsections are national recycling rate in tons of materials recycled and number of companies, publishing sustainability reports.²

In UNEP Discussion Paper authors also suggested more indicators for definition of the targets 12.5 and 12.6, like the size of the re-used goods on the market and market share of goods and services, certified by independently verified sustainability labeling schemes.³

The EU Circular Economy Action Plan outlines several critical statistics and projections that highlight the economic and environmental rationale for transitioning towards a circular economy, such as expected rate of waste generation increase by 70% by 2050 and global consumption of materials such as biomass, fossil fuels, metals, and minerals doubling in the next forty years. It is admitted that electrical and electronic equipment is one of the fastest-growing waste streams in the EU, with

¹ World Commission on Environment and Development, *Our Common Future* (1987) <https://www.iisd.org/mission-and-goals/sustainable-development> accessed 25 April 2023.

² United Nations, 'Goal 12: Ensure sustainable consumption and production patterns' (2023) <https://unstats.un.org/sdgs/report/2023/Goal-12/> accessed 25 April 2024.

³ United Nations Environment Programme, 'Sustainable Consumption and Production Indicators for the Future SDGs' (Discussion Paper, March 2015) 10 <https://www.unep.org/resources/report/sustainable-consumption-and-production-indicators-future-sdgs-unep-discussion> accessed 25 April 2024.

less than 40% of electronic waste currently being recycled. In the textile industry, which is the fourth highest-pressure category for the use of primary raw materials and water, and fifth for GHG emissions, less than 1% of all textiles are recycled into new textiles.

Another set of data, provided by Key findings on European business (statistics of 2020), illustrates that the biggest share of the total number of enterprises in EU belongs to distributive traders - 24.3%, while the repair services for computers, personal and household goods represent only 0.8% of operating businesses.⁴ According to the same statistics, the repair services was one of two types of businesses, where value added per person employed did not cover average personnel costs per employee, with one employee generating only 84% of costs, covering their employment fee.

More than one fifth of all persons employed in the EU's non-financial business economy in 2020 were employed in manufacturing (23.0 %) and distributive trade (22.9 %) areas, while only 0.3% of all employees are engaged in the repair services.⁵

While being rather general, these figures indicate a disturbing disbalance between the production and sales rate and the possibilities to actually contribute to sustainable consumption by repair and reuse of what can be repaired and reused.

The link between intellectual property rights and sustainability, including the recognition of IP as a potential barrier to sustainable development, has been evolving over several decades. It was and still is controversial, as on one hand the IPRs present incentives to innovation in sustainable technologies and practices, on the other hand they restrict access to such technologies, posing challenges to achieving sustainability goals.

In its Proposal to establish a development agenda in 2005, WIPO recognized and criticized a prevailing approach that assumes stronger IPR protection automatically leads to development, pointing out that "Current worldwide debate questioning the appropriateness of such an approach has not been reflected in WIPO's work".⁶ WIPO further advocates the need to assess the costs and benefits of norm-setting initiatives in terms of sustainable development, promoting a balance between protection and dissemination of knowledge and the interests of developed and developing countries, fostering the participation of a broad range of stakeholders, and supporting the compatibility with broader international objectives. WIPO expressly states that the IPR protection is not the ultimate goal on its own, but a means to support economic, social, and cultural well-being, therefore any modification of international intellectual property rules should be done with the view of sustainable development needs.⁷ On top of that, according to WIPO, open access models and other alternatives outside the IPR system should be considered to reduce the monopoly of knowledge. By the time this Proposal was issued, the Convention on Biological Diversity, Millennium Development Goals (MDGs), and the Plan of Implementation of the World Summit on Sustainable Development had already been in place, so WIPO

⁴ Eurostat, *Key Figures on European Business – 2023 Edition* (2023) 29 <https://ec.europa.eu/eurostat/web/products-key-figures/wks-04-23-195> accessed 25 April 2024.

⁵ Ibid 31.

⁶ World Intellectual Property Organization, *Proposal to Establish a Development Agenda for WIPO: An Elaboration of Issues Raised in Document WO/GA/31/11* (Inter-sessional Intergovernmental Meeting on a Development Agenda for WIPO, First Session, 11-13 April 2005) para 4.

⁷ Ibid para 44.

referred to those as program documents, which must be taken into account during law-making process, concerning IPRs.

Previously, the role of IPR in promoting sustainability was mostly revolving around innovations, which might facilitate solution of environmental problems and concerns regarding availability of life-saving drugs, should the original formula be protected by patent. Nowadays, when the discussion is covering much broader areas like the right to repair and exhaustion of rights, the strategic documents, defining the role of sustainability are still in search of the balance between strict IPR protection and sustainability. As noted by Martin Zeitlin, IP rights are neutral on the issue of sustainability, as it emerged as a public policy after the creation of global IP system.

Hans Morten Haugen, elaborating on the question “Why are intellectual property rights hardly visible in the United Nations Sustainable development Goals?” mentions the concept of “five “Cs”, explaining the reasons behind this disconnection as follows:

1. Complexity of IP: The multifaceted nature of intellectual property, and its implications for both climate change and development, pose a significant challenge for seamlessly integrating IP considerations into the sustainability discourse.

2. Lack of Communication: There's an observed deficiency in communication between relevant governmental offices concerning IP matters. This disconnection contributes to the marginalization of IP issues in discussions related to sustainability and development goals.

3. Compartmentalization: IP issues tend to be compartmentalized within the UN system, particularly between different secretariats and delegations in Geneva and New York. This segregation dilutes the focus on IP in broader sustainability initiatives.

4. Campaign Strengths: The varied strengths of campaigns across different countries and on a global level influence the emphasis (or lack thereof) on IP rights within sustainability agendas. Some campaigns that could spotlight the importance of IP in sustainability efforts might not be as vigorous or widespread as needed.

5. Cautious Approach on IP: There's a general cautious stance towards IP, evidenced by legislative changes and court rulings in both industrialized and developing countries. This cautiousness possibly stems from the contentious nature of IP rights and the balancing act required to ensure they contribute positively to development without stifling innovation or access.⁸

Considering aspects like the TRIPS flexibilities and the WIPO position, it seems that IP legislation recognizes certain limitations to IP protection where there is a need to prioritize other values like life and health, environment protection and other issues of broader societal importance. However, these mechanisms often act as exceptions, rather than fundamental principles – IP law still mostly operates within a framework primarily designed to protect and incentivize innovation. The sustainability framework, on the other hand, emphasizes broad goals, that include, but are not limited to the issues, affected by the IP law. The sustainability framework does not inherently address IP issues, that is why there is a growing need for these two frameworks to intersect more coherently, ensuring that IP policies support and do not hinder the achievement of sustainability goals.

⁸ Ole-Andreas Rognstad and Inger B. Ørstavik (eds), *Intellectual Property and Sustainable Markets* (12-13).

However, when being opposed by other values, not as obvious and universal as life and health, IP protection is not so easy to overcome. Among others, Sustainable consumption is strongly connected with the concept of “right to repair”, and the principle of “exhaustion of rights”. The "right to repair" refers to the idea that consumers should have the ability to repair the products they own rather than be compelled to replace them due to restrictions imposed by IP rights holders, such as limitations on access to necessary parts, tools, or diagnostic software. Connected with it, the principle of exhaustion of IP rights suggests that the control of an IP rightsholder over the distribution and release of a product diminishes after its first sale. While the principle of exhaustion is harmonized across the European Union in Directives under Directive 2001/29/EC on copyright and related rights, Directive (EU) 2015/2436 (Trademark Directive), Regulation (EC) No 469/2009 (Supplementary Protection Certificate Regulation for Medicinal Products) and Regulation (EC) No. 6/2002 on Community Designs, ensuring the free movement of goods and contributing to the internal market efficiency, same cannot be said about the right to repair.

Considering all the above, repair businesses are currently not in the best position across the European Union, and it is difficult to predict when and if their position will be more secure even after the discussed initiatives are enforced. Coming back to the UNEP Discussion Paper, for example, the additional indicators mentioned earlier, although looking perfectly reasonable, did not make it to the final text of the Agenda 2030. Besides, worsening the situation are a number of noticeable court rulings on cases, involving IP infringement by acts of repair and refurbishment is not facilitating a transition towards sustainable consumption, where consumers would rather give a second chance to the items which can still be used after minor renovation instead of wasting them.

Encouraging a transition towards circular economy requires united efforts of public policy support, incentives for repair services, and cultural shifts in consumer behavior towards valuing durability and repairability. The issue is so complex because it involves a wide range of stakeholders and is tied with different areas of law:

- IP law, which has the dual capability of either fostering innovation in sustainable technologies or acting as a barrier to sharing such innovations;
- Consumer law, which can empower individuals with the right to repair their purchases and grant them right to claim more sustainable, durable and repairable goods from the manufacturers;
- Environmental law, directly promoting and supporting sustainability goals and transition towards circular economy;
- Competition law, ensuring that the repair markets remain open and accessible, preventing monopolistic practices, that could limit repair opportunities.

Based on that, considering the persons affected by the mentioned legislation, we can say that the major stakeholders groups are: the consumers, making decisions on what products to purchase and whether to repair them or dispose of them; the manufacturers and IPR holders, determining which type of products to produce and invest in development and whether or not to allow their repairability and access to the spare parts; states regulatory bodies: lawmakers, determining legal framework and standards for production, trade, after-sale and waste disposal; and repair service providers, whose activities are mostly affected by the decisions of the previous three

groups. If the key purpose of Sustainability Goal 12 is to increase the share of goods repaired, reused and refurbished, we need to look deeper into the decision-making process of each of these groups and think, what may affect their choices.

Starting with the Manufacturers, at the product development stage they are making decisions on what type of product to invest in, how it will be designed, what materials to use in its production. As a result, we may get either a disposable product, made out of eco-unfriendly materials, non-durable and non-repairable, or a durable product, easy to fix with accessible spare parts, which the consumers will not want to dispose of. The factor which could affect the Manufacturer's decision-making could be: the Consumer's demand for more durable products with eco-friendly approach and the Regulator's guidelines in terms of which materials are allowed or prohibited in the manufacturing, what production techniques are considered good or bad practices and the requirements to the product durability and reparability.

The Consumer's role here is to choose more sustainable products, thus creating a Demand, and avoid disposable ones, discouraging its production. The second key decision to be made by the Consumers is to actually bring their items for repair instead of disposing of them where it is possible. These decisions will be affected by the actual availability of sustainable products in the market and the availability of repair services. According to studies conducted in 2018, majority of consumers chose to repair things they own – 64%. Among them, 12% were self-repaired (especially clothes), 17% got repair services from the manufacturers (which likely means that the repair was under warranty terms), and 26% were done by repair services, meaning that less than one third of potentially repairable goods are fixed by independent repairers. The studies also showed that repair decisions are easily disrupted if arranging repair requires effort, indicating that there is a large potential to close the gap between consumers' willingness to engage and their actual engagement.⁹

Now, coming to the role of the individuals, providing repair services – being in the position of mostly affected party, their role is first and foremost to be present in the market and provide accessible service to the Consumers who are seeking it. In order for them to be able to play their part, the following conditions must be met: the products, available in the market must be fit for repair, the Consumers should be aware of the possibility to repair and show a demand for such services, the spare parts and manuals for repair must be available, and, since the majority of the repair services shops are small and medium-sized enterprises, they should be secure from lawsuits from IPR holders, because most of them cannot afford the litigation cost.

In conclusion, while the sustainable development goals have elevated the discourse around ecological responsibility and resource efficiency, the complexities of intellectual property rights continue to pose significant challenges in aligning legal frameworks with sustainability objectives. This thesis seeks to bridge this gap by focusing on Goal 12 of the Sustainable Development Goals – specifically, the aspects of reuse, repair, refurbishment, recycling, and upcycling of goods.

⁹ *Behavioural Study on Consumers' Engagement in the Circular Economy: Executive Summary* (October 2018).

1.2 Purpose and research questions

Despite broad recognition of these practices as being crucial to sustainability, current IP regimes often undermine such efforts by restricting access to necessary resources for repair and reuse. Therefore, this study aims to develop a framework of objective, measurable criteria that can assess when the reuse and repair of goods do not infringe on the IP rights of the original creators. These criteria will serve as potential defenses for repair services in conflicts with IP holders, ultimately promoting a more sustainable and equitable economic system. By examining the decision-making processes of manufacturers, consumers, regulators, and repair service providers, this thesis endeavors to propose solutions that align with both sustainable development and the protection of IPRs, thus supporting a transition toward a more circular economy where sustainability and innovation coexist synergistically.

The thesis proposes the establishment of objective criteria that judicial bodies could employ to assess the legality of reusing, repairing, and refurbishing intellectual property-protected goods. By doing so, it aims to provide sufficient assurances to entities engaged in such practices, ensuring their activities are both legally sound and supportive of the EU's sustainability objectives. In order to achieve that this thesis will answer the following questions:

1.2.1. What are current criteria, applied by courts in cases where intellectual property rights are claimed infringed by acts of reuse, repair and refurbishment?

1.2.2. What outcomes these criteria generate, according to current case-law?

1.2.2. What initiatives are suggested by the European union to promote sustainability and how they intersect with IP law?

1.2.3. What could be objective, measurable criteria to determine legality of reuse, repair, refurbishment, recycling and upcycling of IP protected goods?

1.3 Delimitations

For the purposes of this research certain delimitations shall be made.

1.3.1. The research does not aim at comprehensive comparative analysis with other jurisdictions, although it may contain mention of precedents or regulations from other jurisdictions outside the EU.

1.3.2. The research will not cover the repair of industrial equipment, and will focus on the consumer goods. The reason behind that being longer warranty periods, longer durability of such equipment and, normally, presence of a legally binding relationship between the manufacturer (the original IPR holder), the consumer and the company performing the repair service, which would usually be either the manufacturer of the equipment itself, or their affiliated company.

1.4 Method and materials

The methods used in this thesis will be: the doctrinal method, empirical legal research, the documentary analysis, comparative legal analysis, legal interpretation.

This research will examine the following sources:

1.4.1. International law and EU Directives and Regulations, including, but is not limited to, the Waste Framework Directive, the Ecodesign Directive, and the Circular Economy Action Plan, European Green Deal

1.4.3. EU Case law – a review of landmark and recent cases adjudicated by the Court of Justice of the European Union (CJEU) and national courts that have addressed the conflict or convergence between IP rights and sustainability efforts.

1.4.2. EU proposals, aimed at promoting sustainability, such as proposal for a Directive on Empowering consumers for the green transition and proposal for a Directive on common rules promoting the repair of goods.

1.4.4. Literature review. This study will explore both legal doctrine and interdisciplinary insights from economics, environmental studies, and law that form the discussion on IP rights and sustainability.

1.5 Outline

The Introduction section “Background” will provide the information on origins and current application of several key concepts, such as “sustainability”, “the right to repair”, “exhaustion of rights”. It will conclude with the reasoning why the research subject is relevant.

The second chapter will be an overview of currently effective international law, EU regulations and case-law that formed a legal approach of treating IPRs in cases, involving repair, reuse, refurbishment, recycling and upcycling. This chapter will answer the question, what are the current defences for repairers, in case they receive a claim from the original IPR holder and how they are evaluated by the courts, should the dispute be brought before it.

The third chapter will explore the initiatives, suggested by the European Union to promote sustainability and how they intersect with IP law. The chapter will also discuss, what other areas of law intersect with sustainability and IP law, and if they have mechanisms for balancing the interests of both; and will identify stakeholders, whose choices make the most impact on achieving Sustainability Goals and how those choices can be shaped by the legislator.

The fourth, final chapter will make a sub-conclusion of the previous chapters and explain the necessity of, and suggest objective, measurable criteria to determine legality of reuse, repair, refurbishment, recycling and upcycling of IP protected goods. It will also suggest some economic models, which could be appropriate for making those criteria calculable.

2 Current regulation in WTO and EU

2.1 TRIPS and WTO case law

This chapter will answer the question, what are the current defences for repairers, in case they receive a claim from the original IPR holder and how they are evaluated by the courts, should the dispute be brought before it.

On a global level, recognition of sustainable goals prioritisation can be seen in the TRIPS Agreements, specifically, provisions aiming to balance the IPRs protection with the help of “flexibility” mechanism, via Articles 7 and 8 – Objectives and Principles (referred to as “sleeping” articles until recently) Articles 27.2 and 27.3(b), allowing members to exclude from patentability inventions, necessary to protect human, animal or plant life or health or to avoid serious prejudice to the environment under certain circumstances, Article 30, allowing exceptions to the exclusive rights, conferred by a patent, provided that such exceptions do not conflict with the normal exploitation of the patent and do not prejudice the legitimate interests of the patent owner, Article 31, allowing unauthorized use of IPR protected products under certain circumstances, Article 31bis, adding the possibility to grant compulsory licenses for pharmaceutical manufacturing, and Article 66.2 requiring developed countries to incentivize enterprises to promote and encourage technology transfer to least-developed countries.

From one perspective, these articles put an emphasis on social issues, prioritizing sustainable values and acknowledging that IPR protection should serve broader public interest goals, on the other hand, these flexibilities position sustainability-related considerations more as exceptions to the general rule of strong IPR protection. So far, the above articles were mainly used for the purpose of healthcare protection – the most noticeable case, which “woke up” the Articles 7 and 8 of TRIPS was the Plain Packaging case, concerning cigarettes. When in 2011 Australia passed the Tobacco Plain Packaging Act, it was followed by the claims from countries, manufacturing tobacco products, who felt affected by it. This law required that cigarettes be sold in plain packaging, without logos, brand imagery, or promotional text, in an effort to reduce the attractiveness of tobacco products, especially among young people and non-smokers. The packaging is standardized in color and appearance, with health warnings. Countries with significant tobacco industries, including Honduras, Dominican Republic, Cuba, and Indonesia, challenged Australia's plain packaging laws at the WTO, arguing that these measures violated intellectual property rights under the TRIPS agreement, specifically provisions related to trademarks and geographical indications. In June 2018, the WTO Panel Report ruled in favor of Australia, stating that the plain packaging law contributes to improving public health by reducing the use and exposure to tobacco products and dismissed the claims that the law unjustifiably infringed trademark rights under the TRIPS agreement. The panel's decision was grounded in the argument that these measures were justified under Articles 7 and 8 of TRIPS, which prioritize public

health and allow for certain flexibilities in the implementation of intellectual property rights.

Article 27.2 and 27.3(b) came in the limelight in Case Novartis AG v. Union of India & Others (2013), although, not decided by the WTO dispute resolution mechanism, it is considered significant for several reasons, including its interpretation of what constitutes a patentable invention in the context of pharmaceuticals and the implications for access to medicines in developing countries. The case underscored the use of national legislation in India to interpret and implement TRIPS flexibilities, particularly concerning public health and access to medicines.

Article 31 and 31bis were also referred to in the resolution of disputes around access to medicines. Article 31 was referred to in the WTO dispute settlement case (DS114) regarding Canada's use of compulsory licensing for pharmaceuticals, allowing generic manufacturers to produce patented drugs under certain conditions without the patent holder's consent. The case was a test of Article 31's provisions on compulsory licensing, with the final panel report recognizing Canada's measures as compliant with TRIPS, provided they met certain conditions like adequate compensation to the patent holder. Article 31bis was tested, when in 2007 Rwanda notified the WTO of its intention to import generic versions of an HIV/AIDS treatment from Canada, referring to the Article 31bis, which was added to TRIPS in 2005 to allow compulsory licensing expressly for manufacturing generic drugs for export to countries lacking sufficient pharmaceutical manufacturing capacity.

These cases demonstrate that mentioned flexibilities are in line with the Goal 3 of Agenda 2030, aiming to ensure healthy life and promote well-being for all at all ages, leaving no doubts about prioritizing life and health over ultimate and unlimited IP protection.

2.2 EU Intellectual property legislation and caselaw

2.2.1 EU current legislation

This section will provide an overview of current criteria under EU law for the legality of using third-party IP without infringing on the original IP owners' rights, specifically, trademarks, patents, designs and copyright and an overview of current legal initiatives, bringing the sustainability agenda closer with the current IP regulations.

Under EU trademark law, primarily governed by the **EU Trade Mark Regulation (EUTMR)**¹⁰ and the **EU Trade Mark Directive**¹¹, non-infringing use is assessed based on two main criteria: Likelihood of Confusion and Damage to Reputation. Article 9(2)(b) of the EUTMR prevents third parties from using signs similar to existing trademarks where such use would likely confuse the public about the origin of the goods or services. Article 9(2)(c) of the EUTMR protects well-

¹⁰ Regulation (EU) 2017/1001 of the European Parliament and of the Council of 14 June 2017 on the European Union trade mark [2017] OJ L154/1, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1001> accessed 06 of May 2024

¹¹ Directive (EU) 2015/2436 of the European Parliament and of the Council of 16 December 2015 to approximate the laws of the Member States relating to trade marks [2015] OJ L336/1, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32015L2436> accessed 06 of May 2024

known trademarks from any third-party use that takes unfair advantage of, or is detrimental to, the distinctive character or reputation of the trademark. These criteria aim to balance the interests of trademark owners with market competition and consumer protection, ensuring fair competition and consumer clarity.

The **European Patent Convention (EPC)**¹² provides exceptions, that allow for the non-infringing use of patented inventions in the following situations:

Experimental Use: Under Article 27(b) of the EPC, acts done for experimental purposes relating to the subject matter of the patented invention are allowed without constituting infringement. This exception is designed to encourage innovation and allow for scientific research and development.

Private and Non-Commercial Use: Acts performed privately and for non-commercial purposes are exempt from infringement claims, as outlined in Article 27(a) of the EPC. This exception ensures that individuals can use patented inventions for personal use without facing legal repercussions.

Prior User Rights: If a person or company has been using the invention or made significant preparations to use the invention before the patent was filed, they may continue to use it under the prior user rights defense, as stipulated in Article 28 of the EPC.

These exceptions facilitate innovation and public benefit without overly restricting the use of patented technology.

The **Community Design Regulation (CDR - EC No. 6/2002)**¹³ also outlines conditions under which third-party use of designs does not infringe the rights of the design holder. Article 20 specifies exceptions related to the use of registered designs, including use for the purpose of citation, teaching, or experimentation, provided such use complies with fair trade practices and does not unduly prejudice the normal exploitation of the design. This article also has a provision for repairs and spare parts, however it is limited to the equipment on ships and aircrafts, registered in a third country when these temporarily enter the territory of the Community.

While these provisions offer some flexibility, they are narrowly tailored and primarily focus on individual, non-commercial, or educational contexts.

In the context of software blocks it should be mentioned that there is a provision in the **Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs**¹⁴ (the **Computer Programs directive**), which hints at the possibility of conducting repair activities: “a person, having the right to use a computer program, should not be prevented from performing acts, necessary to observe, study or test the functioning of the program, provided that these acts do not infringe the copyright in the program”. As promising as it seems, unfortunately this provision is in the preamble, thus not constituting a binding part of the legislation.

The Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related

¹² European Patent Convention (EPC) of 5 October 1973, available at <https://www.epo.org/en/legal/epc/2020/convention.html> accessed 06 of May 2024

¹³ Council Regulation (EC) No 6/2002 of 12 December 2001 on Community designs [2002] OJ L3/1, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32002R0006> accessed 06 of May 2024

¹⁴ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs [2009] OJ L111/16, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0024> accessed 06 of May 2024

rights in the information society¹⁵ (the Infosoc Directive) also allows exceptions and limitations, based on provisions of Art. 5(3): Member states may provide for [additional] exceptions and limitations in the case of use in connection with the repair or demonstration of the equipment. Recital 48 of the same Directive could also be used to justify flexibilities for this purpose with its formulation: “legal protection for technical protection measures should not prevent the normal operation of the electronic equipment and its technological development”.

Another document, which deserves attention in the context of correlation of IP and sustainability, is **Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - An intellectual property action plan to support the EU’s recovery and resilience (IP action plan)¹⁶**, adopted on November 11th, 2021. The IP action plan highlights the need for updated IP policies, in order to keep pace with technological advancements and changing economic landscapes and to support recovery and resilience, especially after the pandemics of Covid 19. It is admitted, that cultural and creative sectors cannot thrive without effective IP protection. At the same time, the lessons learned during the pandemics show the importance of easier access to and sharing of IP-protected assets.¹⁷ This apparent contradiction is reflected in one of the focus areas, highlighted in the document as the need to facilitate access to and sharing of intangible assets while guaranteeing a fair return on investments.¹⁸

What is even more relevant for the purpose of this study is that the IP action plan specifically mentions the need to ensure that repair and re-use are not blocked by unfair or excessively restrictive IP practices. More focus on this matter is added by the reference to lack of harmonization of design protection for component parts, used for repair (spare parts, specifically), which hampers transition to a more sustainable and greener economy.¹⁹ In order to facilitate repairs, the IP action plan suggested that IP framework should be re-evaluated so that SMEs could receive access to data and at the same time the legitimate interests of the IPR proprietors would be safeguarded. We will further see that this search for balance was embodied in Commission Proposal for a Directive on the legal protection of designs, dated 28.11.2022, incorporating special repair clause.

The IP Action Plan represents a pioneering shift within intellectual property discourse as it integrates sustainability considerations, which were previously addressed solely through consumer rights legislation. Although not legally binding in nature, it marks a point, where IP strategies explicitly align with sustainability goals.

Considering the above examples of legislation in view of discussion on sustainability, it becomes apparent that the existing IP frameworks are not fully aligned with the sustainability goals, particularly in promoting widespread repair

¹⁵ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society [2001] OJ L167/10, available at <https://eur-lex.europa.eu/eli/dir/2001/29/oj> accessed 06 May 2024

¹⁶ European Commission, 'Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - An Intellectual Property Action Plan to Support the EU's Recovery and Resilience' COM(2020) 760 final, [2020] OJ C, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0760> accessed 06 of May 2024

¹⁷ Ibid 11.

¹⁸ Ibid 4.

¹⁹ Ibid 7.

activities. Except for some allowances in design law, current IP regulations offer limited scope for repairing goods, which is a critical component of a sustainable economy. The focus tends to remain on protecting the commercial interests of IP owners rather than facilitating a circular economy where goods are designed to last longer and be repairable.

2.2.2 EU caselaw

In terms of case-law, it is important to investigate and compare the courts' approach to solving cases where different types of intellectual property are involved and potentially infringed by acts of repair and refurbishment.

2.2.2.1 Right to repair and Patents

As of the date of this research, no cases, involving patent disputes, associated with repair activities could be found in the CJEU practice, however there are two notable cases from the United Kingdom, which left their footprint in the doctrine and case law approach, namely *United Wire Ltd v. Screen Repair Services (Scotland) Ltd* and *Schütz v Werit*.

The case **United Wire Ltd v. Screen Repair Services (Scotland) Ltd**²⁰ revolves around the question of whether certain repair activities by Screen Repair Services (Scotland) Ltd, involving the reconditioning of sifting screens, constituted an infringement of United Wire's patents. The central legal issue was whether the defendants' actions amounted to "making" a new product, rather than merely repairing the existing one, which would infringe the patents.

The House of Lords, in their decision, focused on the nature of the repair activities and whether these activities involved creating a new product under the patent laws. The defendants argued that they were merely extending the life of the screens by repairing them, which should not be considered as making a new product. However, the court concluded that the extent of work done on the screens essentially resulted in making new patented products, thus infringing the patents.

In case of **Schütz v Werit**²¹, the court also explored the distinction between "repair" and "making" a product under patent law. The focus of the dispute was on the nature of intermediate bulk containers (IBCs), which consist of a cage and a replaceable plastic bottle. Schütz held a patent for these IBCs, specifically for the design of the cage, which was considered the novel and inventive aspect. Werit manufactured replacement bottles and fitted these into the original cages made by Schütz, a practice known as cross-bottling. The main legal question here was, if replacing the bottle constituted making a new patented product, thereby infringing the patent. The Patents Court initially decided that replacing the bottle did not equate to making the patented product because the cage, which embodied the inventive concept of the patent, remained unchanged. Thus, inserting a new bottle into the existing cage was seen as a mere repair, not an infringement.

However, the Court of Appeal overturned this decision. The appellate court, led by Jacob LJ in one of his final judgments, rejected the notion of a "*whole of the*

²⁰ *United Wire Ltd v Screen Repair Services (Scotland) Ltd* [2000] UKHL 42, available at <https://publications.parliament.uk/pa/ld199900/ldjudgmt/jd000720/wire.htm> accessed 07 of May 2024

²¹ *Schütz (UK) Ltd v Werit (UK) Ltd* [2011] EWCA Civ 303, available at <https://patentblog.kluweriplaw.com/wp-content/uploads/sites/52/2011/04/Schutz-v-Werit-Court-of-Appeal.pdf> accessed 07 of May 2024

inventive concept" test as a criterion for differentiation between making and repairing. Instead, the court emphasized that the original IBC ceased to exist when the bottle was removed, and what remained was merely a component of the IBC. By introducing a new bottle, Werit essentially created a new IBC, which infringed the patent claims.²² It is worth mentioning that in case **Schütz v Werit** reference was made to the case **United Wire**, therefore cementing this precedent and the reasonings of the court, that the correct approach is "to ask whether, when the part in question is removed, what is left embodies the whole of the inventive concept of the claim".²³ According to the court's logic, if "what is left" does not comply with the inventive concept of the claim, the act of replacement of a part no longer qualifies as repair. Therefore, the criteria was *whether the actions of the defendant fall into the category of "making", would define if the defendant could resort to implied license principle or exhaustion of rights*.²⁴

Another conclusion, the court drew out of this case, which could be considered as detrimental to the spare parts market is the link with competition law, or rather its absence. It came from the reference to the case **Canon Kabushiki Kaisha v Green Cartridge Co (Hong Kong) Ltd**, stating that the manufacturers' monopoly in unpatented replacement parts was "essentially economic concern [which] is not really an apt matter for patent law". The judgement says that in case of **Schütz v Werit** it did not appear that there was any significant public interest concerning the impact on competition. It could however be argued that in case of **Schütz v Werit** the consumers were other businesses, and if the case had concerned private individuals, the situation could have been different.

2.2.2.2 Right to repair and Designs

Cases, involving a dispute over design violation in the context of repair activities are not very common for CJEU practice either. The most notable would be **Acacia v Audi Joined Cases C-397/16 and C-435/16**²⁵, where the claim was made for infringement of Community designs of alloy car wheel rims. Acacia manufactured and sold alloy car wheel rims that were replicas of those designed by Audi and Porsche, infringing their Community designs. Audi and Porsche contended that Acacia's actions violated their exclusive rights under the design protections. The European Court of Justice (ECJ) ruled on the interpretation of the "repair clause" and concluded that the repair clause does not exclude replica parts from the definition of a "component part of a complex product" for the purpose of repair, provided that the replicas are identical in appearance to the originals and are used solely for the purpose of repairing the complex product (such as a car) to restore its original appearance²⁶. Other requirements the Court highlighted were as follows:

- to keep the consumer informed of the origin of the spare part;²⁷

²² B Cordery, 'Making or repair?' (Kluwer Patent Blog, 6 April 2011) <https://patentblog.kluweriplaw.com/2011/04/06/making-or-repair/> accessed 02 May 2024.

²³ **Schütz (UK) Ltd v Werit (UK) Ltd** [2010] A3/2010/1274 (Approved Judgment) para 48.

²⁴ **Schütz (UK) Ltd v Werit (UK) Ltd** [2010] EWCA Civ 1274 (Approved Judgment) para 61.

²⁵ **Acacia Srl v Audi AG and Others, Joined Cases C-397/16 and C-435/16**, ECLI:EU:C:2017:992, available at <https://curia.europa.eu/juris/liste.jsf?num=C-397/16&language=en> accessed 07 May 2024.

²⁶ **Acacia v Audi, Joined Cases C-397/16 and C-435/16** [2017] ECLI:EU:C:2017:992 para 57.

²⁷ *Ibid* para 86.

- to ensure that downstream users do not intend to use the component parts at issue in a way that does not comply with the conditions prescribed by Article 110(1) of Regulation No 6/2002 on Community designs;
- to refrain from selling a component part if they know or are supposed to know that the part will not be used in accordance with the condition of Article 110(1) of Regulation No 6/2002 on Community designs.

Considering the above it is safe to say that the decision puts emphasis on the responsibility of manufacturers to avoid contributing to potential misuse of such parts, highlighting a proactive role in ensuring compliance with design rights regulations.

2.2.2.3 Trademarks

The broadest category of cases, connected with the repair and reuse activity, surprising as it may seem, comes from the violation of trademarks. One of the first cases, worth mentioning here, is **Case C-63/97 BMW v. Deenik**²⁸, which received its preliminary ruling in the year 1999. It is worth mentioning, that the original trademark owner came for the repairer not for his repair activity per se, but rather for its advertisement – the repair shop used BMW trademark and graphic logo in its advertisement. In its preliminary ruling the CJEU highlighted the following criteria, when such use could have been permitted:

- The use of trademark is necessary to indicate the intended purpose of a product or service, particularly as accessories or spare parts;
- Should not deceive the public or create a false impression of commercial connection or endorsement by the trademark owner;
- Should be fair and should not damage the reputation or the distinctive character of the trademark.

At the same time, the court specifically noted, that the principle of exhaustion is less likely to be applicable to services, like repair and maintenance, then it is in case with the resale of goods, where it is more straight-forward.

The second example, **Case C-228/03, Gillette v. LA Laboratories**²⁹, concerns the concept of compatible spare parts, manufactured by a third party. Here the court built up on the argument from the previous case, that the trademark could be used for the information purposes, however such use should not suggest an economic link with the originator. On top of that, another requirement was added: – Such use must not imply quality equivalence between goods, unless such claim is accurate.

The third and the fourth case could be considered together, due to their similarities: **C-46/10, Viking Gas A/S v. Kosan Gas A/S**³⁰, and **C-197/21, Soda-Club (CO2) SA and SodaStream International BV vs MySoda Oy**³¹. In both cases, the court addressed the issue of trademark exhaustion, examining whether the trademark rights of the original seller - Kosan Gas and SodaStream, were exhausted

²⁸ BMW AG v Deenik, Case C-63/97, ECLI:EU:C:1999:82, available at <https://curia.europa.eu/juris/liste.jsf?num=C-63/97> accessed 07 May 2024.

²⁹ Gillette Co v LA-Laboratories Ltd Oy, Case C-228/03, ECLI:EU:C:2005:177, available at <https://curia.europa.eu/juris/liste.jsf?num=C-228/03> accessed 07 May 2024.

³⁰ Viking Gas A/S v Kosan Gas A/S, Case C-46/10, ECLI:EU:C:2011:137, available at <https://curia.europa.eu/juris/liste.jsf?num=C-46/10&language=EN> accessed 07 May 2024.

³¹ Soda-Club (CO2) SA and SodaStream International BV vs MySoda Oy Case C-197/21, ECLI:EU:C:2023:297, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:62021CJ0197> accessed 07 May 2024.

after the first sale of the product: gas bottles and CO2 cylinders respectively. Both judgments considered whether there were legitimate reasons for the trademark holders to oppose further commercialization of the goods, including assessing the condition of the goods and whether it was changed or impaired and if there was a likelihood of consumer confusion. Therefore, these cases again highlighted the following criteria:

- Creating a false impression of commercial connection;³²
- Misleading information about the origin;³³
- Assessing if the condition of the goods was changed or impaired;³⁴
- Assessing the potential damage to the reputation of trademarks.³⁵

Notably, in both cases the court came to a conclusion that reuse or original bottles and cylinders was permissible under the concept of exhaustion, however the requirement of not creating confusion about the economic link and the origin had to be respected to prevent trademark infringement claims. Besides, in both cases the court ruled that alteration or impairment of the condition of goods is just an example, and not the only possible reason for the original trademark proprietor to oppose the exhaustion of its right.

The fifth case, concerning potential infringement of a trademark, which received a lot of attention in connection with the correlation between the right to repair and trademark, was **Apple Inc. VS Henrik Huseby, Case No. HR-2020-1142-A**³⁶, decided in Norway. Henrik Huseby, who operates his own repair shop, PCKompaniet, imported iPhone screens from Asia that bore the Apple logo, which were then covered with marker ink to obscure the logo. This act was considered an infringement of Apple's trademark rights as the screens were alleged to be counterfeit and not authorized by Apple. Apple contended that even if the logos were temporarily covered, it still constituted use of the trademark without permission. The Supreme Court of Norway ruled in favor of Apple Inc., finding that the import and sale of these screens constituted trademark infringement. The court emphasized that the covered logos, despite being obscured, could still mislead or confuse consumers, and thus upheld the protection of the trademark under Norwegian law.

Interestingly, Apple's lawsuit relied on its claim that the refurbished parts were counterfeits. While different countries have different trademark laws, a refurbished part or product — one that was previously sold, broken, and then repaired by a third party, is not a counterfeit in the United States (and, as ultimately determined in Huseby's case, not in Norway either). Nevertheless, the fact that many manufacturers claim that independent repair shops are "counterfeiting" has a

³² Soda-Club (CO2) SA and SodaStream International BV v MySoda Oy (Case C-197/21) [2021] ECLI:EU:C:2021:000 para 43, 44; Viking Gas A/S v Kosan Gas A/S (Case C-46/10) [2010] ECLI:EU:C:2010:000 para 16.

³³ Soda-Club (CO2) SA and SodaStream International BV v MySoda Oy (Case C-197/21) [2021] ECLI:EU:C:2021:000 para 36; Viking Gas A/S v Kosan Gas A/S (Case C-46/10) [2010] ECLI:EU:C:2010:000 para 23.

³⁴ Viking Gas A/S v Kosan Gas A/S (Case C-46/10) [2010] ECLI:EU:C:2010:000 para 36; Soda-Club (CO2) SA and SodaStream International BV v MySoda Oy (Case C-197/21) [2021] ECLI:EU:C:2021:000 para 34.

³⁵ Viking Gas A/S v Kosan Gas A/S (Case C-46/10) [2010] ECLI:EU:C:2010:000 para 37; Soda-Club (CO2) SA and SodaStream International BV v MySoda Oy (Case C-197/21) [2021] ECLI:EU:C:2021:000 para 43.

³⁶Norwegian Supreme Court, Decision HR-2020-1142-A, available at <https://www.domstol.no/globalassets/upload/hret/decisions-in-english-translation/hr-2020-1142-a.pdf> accessed 07 May 2024.

significant deterrent effect on repair shop proprietors because, among other things, counterfeiting may subject them to criminal action.³⁷

A common thread running through these cases is the judiciary's formalistic approach in interpreting intellectual property laws concerning repair activities. The analysis shows a reluctance by the courts to engage with broader economic and competitive concerns within the scope of intellectual property rulings, as highlighted in *Schütz v Werit*. This indicates a judicial preference for maintaining the established legal protections of intellectual property holders, rather than adapting legal interpretations to accommodate changes in market dynamics or consumer needs.

In conclusion, the judiciary's consistent formalistic approach across different facets of intellectual property law as it pertains to the right to repair illustrates a significant challenge for proponents of broader repair rights. This approach tends to reinforce the status quo, favouring intellectual property holders by strictly interpreting laws in a manner that often restricts repair activities.

3. EU current legislation and legal initiatives on right to repair and their potential implications

Looking at the initiatives currently under consideration, or recently adopted and about to enter into force in the EU, it is fair to say that the European Union is putting efforts and attempts to act proactively in addressing some of the issues related to sustainability, developing directives aimed at reducing waste, especially electronic waste, and promoting sustainability.

3.1. Current EU legislation, promoting sustainability

Current legislation, such as the Eco-design Directive (2009/125/EC)³⁸ and the Waste Electrical and Electronic Equipment Directive (2012/19/EU)³⁹ encourage the design of reusable and easily repairable products. These directives form part of a broader regulatory framework, intended to foster responsible consumption and production patterns, essential components of Sustainability Goal 12.

In addition to these well-known directives, the EU has implemented several other regulatory measures across different sectors to enhance sustainability. The REACH Regulation EC No 1907/2006⁴⁰ plays a crucial role by ensuring that chemicals used

³⁷ Leah Chan Grinvald, 'Intellectual Property Law and the Right to Repair' (2019) 88(1) *Fordham Law Review* 67.

³⁸ Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products [2009] OJ L285/10, available at <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex:32009L0125> accessed 09 May 2024.

³⁹ Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) [2012] OJ L197/38, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32012L0019> accessed 09 May 2024.

⁴⁰ Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European

within the EU market are safe for human health and the environment. It also supports the goal of reducing animal testing by promoting alternative methods for substance evaluation.

The Single-Use Plastics Directive (EU 2019/904) specifically addresses the pollution caused by plastics, especially in aquatic environments, by restricting the use of certain single-use plastic products and obligating producers to contribute to cleanup costs. Similarly, the Packaging and Packaging Waste Directive (94/62/EC) sets recovery and recycling targets for packaging waste, pushing for a decrease in the environmental impact of packaging.

The EU's commitment to reducing energy consumption is further embodied in the Energy Labeling Directive (2010/30/EU), which aids consumers in identifying and choosing energy-efficient products that can lead to significant reductions in energy use. Meanwhile, the Battery Directive (2006/66/EC) targets the minimization of the detrimental impacts of batteries and accumulators on the environment by promoting their collection and recycling.

The End-of-Life Vehicles Directive (2000/53/EC) ensures that vehicles are disposed of or recycled in an environmentally friendly manner.

These directives underscore the EU's approach towards a circular economy, where the value of products, materials, and resources is maintained in the economy for as long as possible, reducing waste and resource use.

Lastly, Green Public Procurement (GPP), or Communication (COM -2008- 400) "Public procurement for a better environment", while not being a directive or regulation, is a voluntary instrument that encourages public authorities to procure goods, services, and works with a reduced environmental impact throughout their lifecycle. It is supported by the EU to help stimulate a critical demand for sustainable goods and services. It highlights the role that public sector demand can play in enhancing market supply for green goods and services, thereby fostering sustainable production practices.

These regulations collectively represent the EU's integrated approach to promoting sustainable consumption and production. By understanding and analyzing these measures, we can appreciate the comprehensive strategy employed by the EU to not only enhance environmental protection but also build a sustainable economy that aligns with the global sustainability goals set forth in Agenda 2030.

3.2. The “right to repair” as a prerequisite for sustainable consumption

The Circular economy action plan, adopted in March 2020, mentioned the need to provide the consumers with access to the products that are designed to last longer and to be repaired and outlines initiatives to establish “a new right to repair”, pointing out electronics and information and communications technology as a priority sector for its implementation.⁴¹

Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC [2007] OJ L136/3, available at <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:136:0003:0280:en:PDF> accessed 09 May 2024.

⁴¹ European Commission, 'A New Circular Economy Action Plan For a Cleaner and More Competitive Europe' (11 March 2020) para 3.1.

The Ecodesign Directive, adopted in October 2009, did not expressly mention the right to repair, focusing more on the requirements for the design of energy-related products with the aim of improving their energy efficiency and environmental performance, but following the adoption of Circular economy Action Plan, the Ecodesign Directive and the Energy Labelling Directive were updated and supplemented with provisions for repairability, durability, and the availability of spare parts and transformed into Regulations.

This change signifies a shift towards a more uniform application of these policies across all EU member states, removing the previous need for individual countries to enact their own laws to meet the directives' objectives. These Regulations 2023/1669 and 2023/1670 accordingly enter into application on June 20, 2025 and will apply to the following product groups: mobile phones, other than smartphones, smartphones, tablets and cordless phones.

According to the new version of the Eco-design Regulation, "being designed for repair and reuse" will mean the following:

- Availability of spare parts – some of them must be available to end users, others - to the professional repairers;
- Access to repair and maintenance information – a website with repair and maintenance information must be available to professional repairers until at least 7 years after the end of placement in the market;
- Maximum delivery time for spare parts – 5 days within first 5 years, 10 days for the remaining years;
- Information on the price of spare parts (indicative pre-tax price);
- Disassembly requirements;
- Requirements for preparation for reuse: ensure that devices encrypt by default the user data stored in the internal storage of the device, include a software function that resets the device to its factory settings and erases securely by default the encryption key and generates a new one, record the data from the battery management system in the system settings or another location accessible for end users;
- Replacement of serialized parts – the manufacturers must provide to professional repairers and/or end users non-discriminatory access to any software tools, firmware or similar auxiliary means needed to ensure the full functionality within 3 working days.

It is worth mentioning that the Regulation now gives us the definition of a "Professional repairer" – it is an operator or undertaking which performs repair and professional maintenance for mobile phones, cordless phones or slate tablets, either as a service or with a view to the subsequent resale of the repaired device.⁴² However, not any professional repairer will be entitled to access such information, as they will need to register at the manufacturer's (or their authorized representative's) web site and the manufacturer will accept such request under certain conditions.⁴³ As for the matters of intellectual property, they are only briefly mentioned in the text in connection with the publication and access to repair and maintenance information - it specifies that, without prejudice to intellectual property rights, third parties are

⁴² Commission Regulation (EU) 2023/1670 of 16 June 2023 laying down ecodesign requirements for smartphones, mobile phones other than smartphones, cordless phones and slate tablets pursuant to Directive 2009/125/EC of the European Parliament and of the Council and amending Commission Regulation (EU) 2023/826, Annex I, para 5.

⁴³ Ibid, Annex II, cls A-D, para 1.1(2)(a).

allowed to use and publish unaltered repair and maintenance information initially published by the manufacturer, importer, or authorized representative once access to that information is terminated after the end of the access period.⁴⁴

Notably, the regulation addresses one of major hurdles for repair of electronic appliances – the software blocks. The Regulation requires that manufacturers, importers, or authorized representatives provide non-discriminatory access to software tools, firmware, and similar auxiliary means necessary for ensuring the full functionality of spare parts and devices during and after repairs. This applies particularly to serialised parts, meaning parts uniquely coded to a specific device. The access to software tools should be facilitated within three working days after a request is received, ensuring timely repairs.

Although making a significant step towards cementing a right to repair for the consumers and specialized repairer businesses, the Ecodesign Directive does have limitations and potential for improvement. First of all, as we can observe from its very name, it has a limited scope of application, covering only repair of smartphones, mobile phones, tablets and similar devices, leaving out a significant portion of consumer electronics, especially larger household appliances ("white goods"), which also suffer from software locks and the need for special tools or software for repairs.

Second, which is of particular interest for current research, the Regulation does not specify a legal framework for IP handling, especially concerning repair manuals and proprietary software. This absence of a clear legal framework on how manufacturers should provide access to their IP could lead to ambiguities and potential restrictive practices under the pretext of IPR protection.

As a consequence of the lacking framework in terms of IP, the Regulation also leaves a room for both cost implications for consumers and negative impact on innovation. While aimed at reducing costs for consumers by extending products lifespans, it may lead to manufacturers' attempt to balance out their potential losses from extended repairability by increasing the initial prices for the goods. At the same time, it could potentially slow down the introduction of new technologies, since the manufacturers will not be incentivized to keep introducing new models of goods as often as they used to.

3.3. The universal right to repair

Probably the biggest step towards harmonization of the right to repair in the EU is represented by the **European Commission Proposal for a Directive of the European Parliament and of the Council on common rules promoting the repair of goods, dated 22, 2023 (COM(2023) 155**⁴⁵ (the Proposal). This Proposal acknowledges the critical role that broader accessibility to repair services and resources plays in extending product lifespans and reducing waste. A detailed examination of this Proposal reveals its potential to transform the repair economy by standardizing practices and making repair an accessible option for all consumers, thereby reinforcing the EU's commitment to a sustainable circular economy.

⁴⁴ Ibid, Annex II, cls A-D, para 1.1(2)(f).

⁴⁵ European Commission, 'Proposal for a Directive of the European Parliament and of the Council on Common Rules Promoting the Repair of Goods and Amending Regulation (EU) 2017/2394, Directives (EU) 2019/771 and (EU) 2020/1828' COM(2023) 155 final, 2023/0083 (COD), [2023] OJ, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023PC0155> accessed 09 May 2024.

The novelty of this proposal lies in its targeted approach to amend existing directives and introduce measures to explicitly support the right to repair for consumers within the EU. It addresses the repair of goods both within and beyond the legal guarantee period, promoting sustainable consumption by increasing repair and reuse rates for consumer goods. It is worth mentioning that the targeted directives and regulations are those on the consumer rights: Directive (EU) 2019/771 on certain aspects concerning contracts for the sale of goods, Directive (EU) 2020/1828 on representative actions for the protection of the collective interests of consumers and Regulation (EU) 2017/2394 on cooperation between national authorities responsible for the enforcement of consumer protection laws.

The aim of proposed Directive is to promote sustainable consumption by increasing the repair and reuse of viable defective goods purchased by the consumers within and beyond the legal guarantee. Another aim, clearly stated in the Proposal is “boosting the repair market without creating a burden, in particular for small and medium-sized enterprises”.⁴⁶

The Directive will provide full harmonization, whereby Member States cannot maintain or introduce in their national law provisions that diverge from those laid down in the Directive. The definition of “repairer”, suggested in the Proposal slightly differs from the one in the Eco-design Regulation, and describes it as a natural or legal person, “who, related to that person’s trade, business, craft or profession, provides a repair service, including producers and sellers that provide repair services and repair service providers whether independent or affiliated with such producers or sellers”. The Directive will impose an obligation on the producers to provide access to spare parts and repair-related information and tools, therefore preventing the situation where the spare parts market could be monopolized by the manufacturers.⁴⁷

Another substantial block of innovations proposed, concerns informing the consumers about the options for repair – at the moment of purchase of goods, and later through an online platform for repair of goods, which should be organized in every Member State.

The Proposal does not address potential IP related issues or possible conflict of interest between original producers and independent repairers, simply obliging the former to provide access to information, necessary for repair and to the spare parts, regardless of their IP protection. This matter was very briefly touched upon in the Commission Staff Working Document, accompanying the Proposal.

The Working Document indicates several options to encourage repair and reuse of goods beyond the legal guarantee, one of them being enhancement of transparency/conditions for repair, specifically imposing obligation to repair goods that are subject to reparability requirements under EU law. According to the Working paper, such obligation would cover the defects outside the legal guarantee, and would be provided by the producers against price. The reason why this responsibility is assigned to the producers is because “other repair actors, e.g. independent repairers and sellers, do not necessarily have access to spare parts or do

⁴⁶ Proposal for a Directive of the European Parliament and of the Council on Common Rules Promoting the Repair of Goods and Amending Regulation (EU) 2017/2394, Directives (EU) 2019/771 and (EU) 2020/1828, ‘Results of Ex-Post Evaluations, Stakeholder Consultations and Impact Assessments.’

⁴⁷ European Parliament and Council, Proposal for a Directive on Common Rules Promoting the Repair of Goods and Amending Regulation (EU) 2017/2394, Directives (EU) 2019/771 and (EU) 2020/1828, art 5(3).

not possess the necessary know-how, software and equipment to fulfil this obligation”.⁴⁸

It is worth mentioning that SMEs were asked a variety of questions regarding this initiative as one of the stakeholders, and their representatives highlighted the following points as main obstacles in their business routine:

- Access to spare parts at reasonable price. The SMEs highlighted the increasing difficulty in obtaining spare parts. Since its distribution is controlled by the manufacturers, they determine its prices, and availability in general;
- Access to technical information – repairers highlighted a lack of access to essential technical documentation and software, which are often kept proprietary by manufacturers.

At the same time, the Working paper introduced monitoring indicators for measuring the impacts of proposed Directive, which include, among others, percentage of repair businesses, registered on the platform per Member State per year, number of new local repair businesses due to higher demand and number of refurbishment businesses registered on the platform. Considering the above, it is safe to presume that the legislators recognize benefits and importance of developing and incentivizing independent repair businesses, however, because the Proposal itself is centered around consumer rights, it is not of prior importance, who will perform the repair – the original manufacturer, or an independent business, rather within the legal warranty period this obligation is primarily considered to lie with the manufacturers and their authorized representatives. It is indeed understandable, since the Proposal also aims to incentivize the manufacturers to produce and invest in development of durable goods, rather than disposable ones, and to move away from the marketing policy, where the manufacturers lure the consumers with new designs and features to replace their goods as often as the new models with new functions is launched. However, because the Proposal is centered around consumers rights, it does not provide independent repairers with tools to effectively compete with the original manufacturers, leaving the grant of access to spare parts, technical documentation and software at the discretion and compliance of the manufacturers.

Another legal initiative worth mentioning, is the Proposal for a Directive of the European Parliament and of the Council on the legal protection of designs, dated November 28th, 2022. The proposal aims to modernize and improve the existing provisions of the design directive to increase legal certainty and clarify design rights in terms of scope and limitations. It seeks to achieve greater harmonization of national design laws and procedures to strengthen the interoperability and complementarity with the Community design system, and to complete the single market in repair spare parts by introducing a repair clause. According to the legislators’ design, the repair clause would benefit the consumers, giving them the option to choose between competing parts at lower prices. However, it has to be mentioned, that this clause will not have immediate effect – the transition period for its entrance into force is 10 years, during which existing design rights will continue to be protected, manufacturers will be allowed to adjust their market conduct with minimum risk or disruption to investment and innovation.

⁴⁸ European Commission, Commission Staff Working Document, Impact Assessment Report Accompanying the Proposal for a Directive of the European Parliament and of the Council on Common Rules Promoting the Repair of Goods and Amending Regulation (EU) 2017/2394, Directives (EU) 2019/771 and (EU) 2020/1828 (Page 34).

The legislators considered several options of formulating the repair clause, one of them being full liberalization for all designs, i.e. opening the market of ‘must-match’ spare parts for competition across the entire EU, extending it to both existing and new designs, however, it was considered not fit for the market environment and basics of IP policy, therefore the choice was made in favor of more balanced option, with 10 years transition period, followed by full liberalization of new designs.

The repair clause, proposed in the discussed version of the Design Directive, is limited to “must match”, or form-dependent parts of complex products, meaning parts whose shape and configuration are dependent on that of a complex product, specifically to take into consideration the judgement of the CJEU in the Acacia case.

What is important to note in the context of this study is *that the repair clause can be used as a defense, on a condition that consumers are duly informed of the origin of the product, used for the purpose of repair. It is made clear, that repairers, who failed to duly inform a consumer of the origin of spare parts will not be able to invoke the defense of the repair clause.*

The importance of this proposal cannot be underestimated, as it provides for uniform approach across all Member States, which was previously non-existent, and the matters were left to the national legislation and national courts to handle. However, it is worth mentioning, that this liberalization could be undermined by the copyright protection. Some components could be eligible for cumulative protection under both design law and copyright - the proposal maintains this principle of cumulation of protection,⁴⁹ and EU copyright law lacks a corresponding repair limitation.

Overall, the introduction of a repair clause is poised to empower consumers by offering them choices from a competitive market of spare parts at potentially lower prices. Nevertheless, while this initiative is a commendable effort towards modernizing the design directive, it is not without its shortcomings. The chosen approach with a 10-year transition period before full liberalization of new design reflects cautiousness, that may delay the benefits consumers and repair businesses could enjoy from immediate market liberalization. Moreover, the directive does not fully address the issue of copyright in the context of design protection. By maintaining the principle of cumulation of protection, where some components could be eligible for both design law and copyright protections, the directive potentially limits the scope of competition.

As can be observed, proposed legislation rarely has a direct link between intellectual property and right to repair, rather it derives from the consumer rights and its protection.

The second observation, coming to mind is that it is relatively new, still under discussion, has long transition periods, therefore at the moment it is rather difficult to predict what the final version will look like, when it is adopted. While, for example, in the United States, the right to repair movement started gaining its popularity since 2010s: in 2012 Massachusetts passed a "Right to Repair" law specifically for automobiles, and one of the first federal laws can be traced back to the Magnuson-Moss Warranty Act of 1975, which aimed to prevent manufacturers from using warranties to unjustly restrict repair freedoms.

⁴⁹ European Parliament and Council, Proposal for a Directive on the Legal Protection of Designs (Recast), art 23.

Finally, even though the preliminary work for mentioned proposals involved studies on potential consequences for SMEs in independent repair businesses and recognized their role in promoting repair and sustainable consumption, said proposals do not seem to provide additional incentives for such enterprises. Most measures seem to target original manufacturers, obliging them to provide access to information, spare parts and software, where necessary. It will definitely benefit SMEs, but those are the conditions merely necessary for them to be able to conduct their activities at all.

The following chapter will explore, what could present such an incentive and strengthen the position of repair businesses.

4. Measurable criteria and how to calculate them

4.1. The necessity of objective measurable criteria

Chapters 1-3 of this thesis describe the current state of law, regulating IP protection, consumers' rights protection and major sustainability goals and how they are being integrated into the connected areas of law. Discussed case law demonstrated current criteria for protection of intellectual property rights of the original proprietors. It was also discussed, how the sustainability agenda penetrates and transforms established order in other areas of law.

The amount and quality of legislation proposals in this area clearly indicates that this trend is not ending any time soon, rather, it demonstrates its beginning, and obviously it will strengthen and reveal a need for more clarity in procedural matters, transparent working mechanisms, a guidance for all participants of the green transition.

From what could be observed so far, many measures from the proposed legislation initiatives are revolving around the manufacturers' obligations: to provide access to technical documentation and spare parts, to produce more durable and repairable goods, and to prioritize repair over replacement. It is supposed to benefit independent repairers by allowing them access to the manufacturers' technical information from repair manuals and to spare parts. They are also supposed to gain more visibility for consumers through online platforms, which the Member states will be obliged to create.

In this context, it is worth mentioning that the proposed initiatives are silent on the mechanisms behind granting such access in terms of intellectual property – whether it is going to be under an open-source regime, or a royalty-free non-exclusive license, and what would be the limits of using it.

Besides, although admitting the importance of SMEs in the repair business, those initiatives do not seem to provide additional incentives for them – the above measures, like providing access are only necessary for them to be able to conduct their activities technically.

The current criteria for permitted use of intellectual property by third parties do not take into consideration the sustainability goals per se, and existing case law implies that the status-quo of IP protection is not affected by the growing importance of sustainability goals, even with the introduction of new legislation initiatives. It may seem, that this order of things is supposed to remain as it is, however, there are well-known examples of exceptions made for protection of other values, like human life and health with the introduction of compulsory licensing mechanism and the TRIPS flexibilities, which allowed to challenge copyright protection – the provisions which used to be referred to as “sleeping”, not promising any significant impact.

In this context it seems fair to keep in mind the main purpose of sustainability goals. It is not to cancel the IP protection and deprive the inventors of their incentives to innovate, it is to promote sustainable development – including in the context of innovations. It is challenging to predict the future development of these two areas of

law; however, it is clear that dramatic changes in the realm of IP law to favour sustainability - such as introducing “sustainability” of an invention as a patentability requirement or as part of the requirement for non-contradiction with norms of morality - are unlikely to occur anytime soon.

One of the possible solutions may be the introduction of objective, measurable criteria to verify if the use of IP-protected items took place within activities directed towards sustainability (repair, reuse, refurbishment, recycling or upcycling), so that the businesses involved in such activity would be protected from potential claims for IP infringement.

4.2. Questions to ask, when determining the sustainable use

This section aims to pose questions, revealing the nature of activities, such as repair, reuse, refurbishment, recycling and upcycling and determining the conditions, when they can be considered sustainability-oriented. It is debatable, what legal embodiment they could receive – if any – however, from the research point of view, it might be meaningful to analyze it and see, how some cases from the examples, mentioned in the Second chapter could receive a different judgement, in case of application of such criteria.

1. Is the use of IP in question commercial? (what is being commercialized – product, or service?)

This criterion will assess whether the re-user or repairer is making an additional profit because of the IP-protected element. This question should be answered, keeping in mind that any business activity is conducted for profit generation. However, the point of this criterion should be to assess specifically the use of IP element, whether a trademark, or patented detail, and not just the repair activity itself. To answer this question we need to investigate, if the use of IP-protected element generates additional profit for the repairer on its own or not. If such assessment had been performed in case Apple Inc. VS Henrik Huseby, it could have received a different judgement, since there was no additional profit generated from the trademark use – the trademark was not visible at all.

2. Does the use serve the purpose to prevent waste or only to create additional value / profit?

If the main purpose is sustainability driven, such as preventing waste and extending the durability of the product the use might be more favorably seen than if the purpose were purely profit-driven. This criterion addresses the balance between environmental sustainability and commercial gains. Although it might be challenging to identify and prove the intention of the use, besides, profitability is the inherent purpose of any business, in this case we again need to focus back on the use of IP itself, and not on the goods, and answer the question, would it be possible to repair or reuse it without interfering with the IP-protected element?

This criterion would also mark the distinction between free-riding on the reputation of an established trademark and explicit counterfeit versus sustainability-oriented activity. It could also balance the previous criterion because if it was to be applied solely, the case Mitsubishi vs. Duma Forklifts NV could have been solved

in favor of the latter, even though Duma Forklifts NV expressly interfered with the identification function of a trademark.

3. Is the result essentially a new product, or a prolonged lifespan of the old one?

This criterion can be traced back to USA caselaw, where it is applied to claims on patent infringement, distinguishing between repair and reconstruction. In cases with trademarks, laws protect against unauthorized use that could confuse consumers regarding the origin of a product. If the result is still the original product, rather than a completely new one, but still bearing the original trademark, the case for legitimate use might be stronger. It also rhymes with the distinction between “repairing” and “making”, when it comes to cases involving patent protection, as in *United Wire Ltd v. Screen Repair Services (Scotland) Ltd* and *Schütz v Werit*. However, the court’s final approach in these cases was based on the official claims made in the patent application and how they were formulated, rather than evaluating the product as whole. This criterion suggests evaluation of product as whole in the context of replacing spare parts and calculating its value relatively.

The above criteria, just like any other may cause debates and disagreements, for example, subjectivity of definition of “commercial use”, because obviously repair businesses are commercial organizations. Defining the main purpose of repair (the Second criterion) may also seem subjective, because repair businesses operate with multiple goals, including both sustainability and profit. This dual motive can make it hard to categorically assess their activities as more favorable or less favorable, besides, it could enhance a risk that companies could exploit this criterion through “greenwashing,” claiming environmental sustainability goals to mask primarily profit-driven motives. The third criterion may have a “grey” area, where modifications substantially improve a product's functionality or appearance, making it difficult to ascertain whether it's a new product or an extended lifespan of the old one.

In order to mitigate the above-mentioned risks, associated with incorrect application of the criteria, they will need a back-up in form of objective measurements.

For this purpose, different concepts could be applied, for example **Conjoint Analysis** – a statistical technique used in market research to understand how people value different attributes (features, functions, benefits) that make up an individual product or service.⁵⁰ Another tool, which could fit the purpose is **Cost-benefit analysis**⁵¹ – it could be used to quantify the profit generated specifically from the use of the IP-protected element versus the overall business profit and to evaluate the economic benefits of extending the product's life (e.g., reduced waste handling costs, deferred replacement costs) against the potential revenue from creating additional value or profit. Finally, **Regression analysis**⁵² could be used to assess the impact of replacing parts or refurbishing on the lifespan of the product versus creating a new

⁵⁰ PE Green and VR Rao, 'Conjoint Measurement for Quantifying Judgmental Data' (1971) 8(3) *Journal of Marketing Research* 355, 363 <https://doi.org/10.2307/3149575>.

⁵¹ Ian Bateman, Andrew Lovett and Julii Brainard, *Applied Environmental Economics: A GIS Approach to Cost-Benefit Analysis* (Cambridge University Press 2003) <https://doi.org/10.1017/CBO9780511493461>.

⁵² Aneurin Grant, Robert Ries and Carla Thompson, 'Quantitative Approaches in Life Cycle Assessment—Part 2—Multivariate Correlation and Regression Analysis' (2016) 21 *The International Journal of Life Cycle Assessment* <https://doi.org/10.1007/s11367-015-0948-x>.

product, looking at variables like cost, functionality improvements, and consumer satisfaction.

From the caselaw, discussed in the Second chapter of this study it does not show that any kind of measurable parameters had been assessed during the litigation procedures – not only in CJEU, but also in the national courts. Statistical methods and economic indicators are widely used in cases, concerning competition law, to analyse market competition, pricing behaviours, market shares, and the potential effects of mergers, acquisitions, or anti-competitive practices, in trade law, to assess dumping margins and subsidies in anti-dumping and countervailing duty cases, and in tax law, especially in cases, involving transfer pricing.

Another pivotal aspect to consider is that these criteria are not intended to impose an additional burden on repair businesses, beyond the criteria currently established. Rather, their purpose is to differentiate repair activities from other forms of manipulations involving IP-protected goods or their components. It is posited that these criteria should be employed to clearly define the scope of repair activities. If an activity conforms to these criteria, then the existing criteria should not be applicable. This is particularly pertinent given the absence of a legal definition of 'repair' in both existing and proposed EU legislation.

In cases, where the activity bears certain resemblance of repair, but does not satisfy these criteria, the already established ones will still apply. For example, it should reveal cases, where a company or individual is clearly abusing a trademark by claiming an unauthorised replica of goods or spare parts to be original - the use of the IP-protected element here will generate additional profit due to consumer confusion over the source and quality of the product, not meeting the first criteria.

Another example could be modifications, aimed only at increasing the price of a product, where a company purchases electronic devices, upgrades them with higher capacity components not intended by the original manufacturer, and sells them as "enhanced" or "upgraded" versions of the original, without clear communication about the changes made. The second criterion therefore would identify practices, such as for example once popular “iPhone jailbreak” – where software manipulations were made to remove restrictions imposed by Apple on devices running iOS and iOS-based operating systems.

The third criterion could be illustrated by an example, where a company acquires used luxury branded furniture, replaces most components such as frames and cushions with non-original parts but keeps a small part of the original structure, and recognisable design, and sells those as "restored". The end result would essentially represent a new product that only superficially retains elements of the old one, misleading consumers about the extent of original craftsmanship and materials. This activity fails to comply with the third criterion because it involves extensive reconstruction that goes beyond mere repair, altering the fundamental character and integrity of the original product.

The introduction of these criteria seeks to provide a more nuanced framework that recognizes and supports sustainability-oriented practices such as repair, reuse, refurbishment, recycling, and upcycling. By focusing on the intent behind the use of IP-protected elements – whether for commercial gain or sustainability – the criteria might help distinguish between activities that genuinely aim to extend the lifespan of a product and those that seek to exploit IP for profit.

As demonstrated, the application of these criteria could lead to different judicial outcomes in cases where the current interpretation of IP law might not adequately consider the sustainability aspect of the activities in question. These criteria advocate for a balanced approach that does not impose undue burdens on repair businesses, which are often small and medium-sized enterprises crucial to local economies and environmental sustainability efforts. They provide a mechanism to safeguard these businesses from potentially overreaching IP infringement claims, thereby promoting an environment that encourages repair and refurbishment activities.

For these criteria to be effectively operationalized, they must be backed by objective measurements and analytical tools like conjoint analysis. This statistical approach could help quantify the value that consumers place on various attributes of repaired goods, thus providing empirical support for distinguishing between repair and commercial exploitation of IP. By clarifying what constitutes a repair activity, these criteria also offer greater predictability and transparency for all stakeholders, including IP holders, repair businesses, and consumers. This clarity is essential for fostering an internal market where sustainable practices are not only encouraged but also protected across all Member States and could potentially suggest a shift towards a more differentiated and context-sensitive application of IP laws, which could inform future legislative reforms or amendments. This shift recognizes the evolving nature of products and consumer expectations in a circular economy and ensures that the legal framework adapts to modern realities, supporting both innovation and sustainability.

Conclusion

This thesis explored a complex interaction between intellectual property rights (IPRs) and sustainability, particularly focusing on repair, reuse, and refurbishment of IP-protected goods. It was demonstrated that existing legal frameworks often prioritize the protection of IPRs, which can sometimes come at the expense of environmental and societal well-being. This approach no longer fits in a situation, where movement towards sustainability is gaining more attention, not only in form of declaration of intentions, but also in proposals for binding legislation.

Circular economy and sustainable consumption as one of its main characteristics affect all spheres of life and find its reflection in different areas of law: consumer rights, competition, environmental law. With passing of new legal initiatives, it becomes more obvious that maintaining old status-quo with IP law remaining intact is not only difficult, but detrimental to the sustainability goals. However, given that current legal initiatives, empowering right to repair and promoting sustainable consumption are still under consideration and do not contain mechanisms, explaining the correlation between IP and sustainability agenda, it might be beneficial to develop an understanding of what can be considered as allowed use of IP-protected goods for the sustainability-oriented purposes. Therefore, a need for objective, measurable criteria has been identified to assess when activities, such as reuse, repair, refurbishment, recycling and upcycling of goods do not infringe on the IP rights of the original creators, facilitating a sustainable use of resources while protecting intellectual property. Such criteria would support the EU's broader goals for sustainability and a circular economy.

By integrating case studies and legal analysis, the study highlights that a more nuanced application of IP law can contribute to a circular economy where repair and sustainability are not only encouraged but also legally facilitated. The proposed criteria could lead to different judicial outcomes in cases where the current interpretation of IP law may not adequately consider the sustainability aspect of the activities in question. It is recognized by the legislators, that SMEs play crucial role in providing repair services, and public surveys reflect that consumers are ready to turn to their services, however certain conditions must be met: repair shops must be easily available, and their services should be priced reasonably. With current case-law posing high IP-related legal risks at such repair businesses, there are no incentives for more businesses to appear in this segment. These criteria advocate for a balanced approach that does not impose undue burdens on repair businesses, which are crucial for local economies and environmental sustainability efforts.

For these criteria to be effectively operationalized, they must be backed by objective measurements and analytical tools like Conjoint Analysis, Cost-benefit analysis, Regression analysis. This approach could help quantify the value that consumers place on various attributes of repaired goods, thus providing empirical support for distinguishing between repair and commercial exploitation of IP. The thesis contributes to the academic and practical discussions on the potential for IP law to adapt to the demands of sustainable development. It proposes specific criteria that could be used by judicial bodies to assess the legality of repairing and

refurbishing IP-protected goods, thereby providing legal clarity and support for sustainability-oriented practices.

In conclusion, this thesis underscores the need for a legal framework that harmonizes the protection of intellectual property with the imperatives of sustainable development. By proposing a set of objective, measurable criteria, this research not only addresses the theoretical gap but also offers practical solutions that could guide future legislative and judicial actions. The recommendations provided aim to foster a legal and economic environment that supports sustainable practices, ensuring that IP laws evolve in line with the changing societal values towards greater sustainability and responsible consumption.

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