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OPINION

Pushing a Square Pin into a Round Hole? Intellectual Property Challenges to a Sustainable and Circular Economy, and What to Do About It

Irene Calboli

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Abstract It is old news that the world is facing growing environmental problems related to industrial manufacturing and waste management. Finally, consumers are demanding change due to the increasing threat of climate change, and industries are being forced to adapt. Repairing, reselling, upcycling, and recycling existing products are key activities to promote sustainability and a circular economy, but current intellectual property (IP) rules may stand in the way when these activities are not conducted by, or with the consent of IP owners. This opinion argues that IP cannot be used to prevent a greener and more sustainable economy. Instead, it needs to incentivize circular activities in the interest of everyone. New approaches, including bolder interpretation of existing limitations and exceptions, and adoption of new exceptions, are essential to rethink IP to support a sustainable future.

Keywords Intellectual property \cdot Exceptions \cdot Exhaustion \cdot Sustainability \cdot Circular economy \cdot Repair \cdot Recycle \cdot Upcycle

1 Introduction

It is old news that we live in an age of over-production and over-consumption. Yet, consumers across the globe have started to finally grasp the magnitude of the environmental consequences of the current system and are increasingly requesting environmentally friendly products. As a result, many industries are under pressure

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to change their traditional business model – in which new products are pushed out multiple times per year, and items are discarded as soon as they break or fall out of style – and develop new practices to reduce their environmental footprint.

Specifically, these practices should focus on eliminating waste and reusing resources, which includes repairing old products, reselling used or upcycled products, and recycling products at the end of their lives to create new raw materials or reuse their parts. In the past several years, many companies have started voluntarily engaging in some or all of these practices, often with the assistance of new technologies and online marketplaces. Yet, tensions with the Intellectual Property (IP) system arise when third parties try to carry out these practices without IP owners' consent. The reason for these tensions is that the IP system still focuses primarily on granting IP owners full control over their products. Under this system, the main concern is maximizing social welfare by promoting investment in innovation and market competition. Yet, this system was designed for a linear economy where products are manufactured, sold, and ultimately discarded without considering production's indirect costs, including environmental impact. Today, on the other hand, we can no longer ignore the environmental costs of production. Thus, promoting sustainability and economic practices that facilitate a circular economy has become a priority. In this context, the primary concern is reusing and recycling existing resources to reduce industrial externalities and environmental damage, not only producing new and innovative products.²

Of course, the relationship between IP and a circular economy is not inherently adversarial. IP rights can help incentivize environmentally friendly practices by promoting sustainable innovations and products. Nevertheless, the current system continues to be based on rules that foster sustainability and circularity, mostly when IP owners remain in full control. On the contrary, should unauthorized third parties try to repair, upcycle, or recycle IP-protected products, IP owners can generally block these activities by claiming IP infringement. While this control may be desirable for IP owners, it does not effectively support circular activities, as it decreases the number of companies engaging in a circular economy. Moreover, IP owners are not legally obligated to implement sustainable and circular practices, at least from an IP standpoint.

Against this background, I support the idea that we should carefully (re)consider how to use the current IP rules to promote a more sustainable and circular economy. How can we do so? First, we should adopt a bolder approach and forcefully implement existing IP limitations, including interpreting them more broadly. Second, we should actively push for adopting new exceptions and limitations related to sustainability and circularity. What is certain is that IP rights cannot operate as barriers to environmental progress in the 21st century. Instead, they should focus on facilitating sustainability and a circular economy in the interest of all.

² See the analysis in Calboli (2023a).



¹ For a detailed description of these practices, *see* Calboli and Corrado (2024); *see also* the editorial by Kur and Calboli (2023), p. 337.

2 Pushing a Square Pin into a Round Hole? The Linear Economy's Approach to Intellectual Property

As broadly recognized by the United Nations (UN), sustainability is a framework in which human activity meets the current generation's needs without compromising the ability of future generations to fulfill their own.³ Directly related to sustainability is the concept of a circular economy. While not new, the idea of a circular economy has gained prominence as an economic model that aligns with the UN's sustainability goals.⁴ In particular, a circular economy is defined as "an industrial system that is restorative or regenerative by intention and design" and whose primary objective is to maximize product value within the entire lifecycle of a product, notably during the production, distribution, consumption, and disposal stages, while minimizing waste.⁵ Specifically, unlike the traditional linear cycle of "tak[ing], mak[ing], us[ing], and dispos[ing]", a circular economy considers products as resources to be reused and integrated into the production cycle through a closed-looped system.⁶

Given the negative environmental impact of industrial production, it is unquestionable that there is an urgent need for a fundamental shift toward more sustainable practices and a circular economy. Fortunately, most industries can potentially review their production model and design new products using recycled materials and spare parts. Likewise, many products already in the marketplace can be reintroduced into the distribution cycle instead of being thrown away through sustainable practices such as reusing, swapping, renting, repairing, and upcycling. As it is easy to imagine, implementing these practices can directly contribute to preserving or extending product value and facilitating an efficient transition across products' various life phases.

As mentioned, however, IP rights may become a barrier against a full-scale implementation of these practices beyond the activities controlled by IP owners. Of course, IP rights may also play a fundamental role in the transition towards a circular economy and sustainability by promoting green innovation and products. Scientists have made clear that the societal and environmental challenges posed by climate change and other environmental disasters can be tackled only through new and innovative solutions and technologies. In this context, patents can be instrumental in incentivizing the development of these technologies, promoting their transfer, and facilitating business models such as patent pools for sustainable and green technologies. In addition, collective and certification marks can help consumers identify environmentally friendly products and ensure compliance with specific standards. Industrial designs and design patents can protect the visual

⁸ World IP Day 2020: How Trademarks Can Promote Sustainability, WIPO, https://www.wipo.int/ipoutreach/en/ipday/2020/articles/sustainable_trademark.html (last visited 3 December 2023).



³ Report of the World Commission on Environment and Development: Our Common Future, United Nations, (1987).

⁴ The 17 Goals, United Nations, https://sdgs.un.org/goals (last visited 3 December 2023).

⁵ Ellen MacArthur Foundation (2013), pp. 1, 8; see also European Commission, A New Circular Economy Action Plan For a Cleaner and more Competitive Europe, COM(2020) 98 final.

⁶ Ellen MacArthur Foundation (2023a).

⁷ See generally Gattari (2013), p. 41.

appearance of environmentally friendly products and materials. Finally, copyright can encourage the creation and dissemination of sustainability-related content.

Yet, from the legal challenges recently brought against companies engaging in circular and sustainable practices, it is clear that the relationship between IP owners and these practices is, at best, uncomfortable and generally controversial. Notably, IP owners continue to rely on IP rights as the invisible string they pull to oppose most attempts by third parties to repair, reuse, resell, upcycle, or recycle their products without their consent. For example, IP owners have regularly blocked or attempted to block third parties trying to repair, refurbish, or upcycle original products, leading to a series of legal disputes. Even though some of these disputes were ultimately decided in favor of the unauthorized parties, many were not, and most cases were settled under confidential terms. ¹⁰

This situation is largely due to the fact that IP protection has historically been justified based on the theory of incentives for innovation and creativity, but on a linear rather than circular model. We have been repeatedly told that IP rights benefit society by encouraging innovation and creativity on the one hand and market competition on the other. Specifically, the IP system incentivizes investments in innovation and creative industries by granting IP owners the right to exclude third parties from using their IP-protected products and processes without their consent for a (generally) limited time. In this way, IP owners can recover costs while also disseminating new products and works for the benefit of society. However, during the term of protection of IP rights, IP owners' right to control their products and processes extends to any use, including those related to circular and sustainable practices, unless a specific limitation or exception applies. In this way, IP owners can often prevent third parties from repairing, reselling, upcycling, and recycling their products when they can claim that these activities constitute an act of infringement of their IP rights.

In this context, aligning the current IP system with the need to promote circularity and sustainability seems like pushing a square pin into a round hole. Moreover, even though the system provides for several exceptions and limitations to prevent abuses and guarantees specific free uses, IP owners always try to deter third parties from engaging in activities that promote sustainability and circularity, also when their claim may not be well founded. This raises serious questions, considering the fundamental threat to the environment (and human life in general) of many industries. Accordingly, the time has come to adopt a bolder approach and make sure the current IP system does not become a tool to prevent the development and flourishing of sustainable and circular economic practices.

¹¹ See, e.g. Fisher (2001).



⁹ European Commission, Making the Most of the EU's Innovative Potential: An Intellectual Property Action Plan to Support the EU's Recovery and Resilience, COM(2020) 760 final.

¹⁰ Calboli (2023a).

3 A Journey Through Circular Industry Practices and Intellectual Property Barriers

By its nature, a circular economy cannot function without economic activities focused on minimizing waste and reusing products as manufacturing resources. As mentioned, these activities include repairing existing products or reselling used or upcycled ones, which gives products a second life. When products must be disposed of, recycling transforms them into new raw materials and allows for saving still-usable parts to repair existing products or make new ones. However, while commendable for a green economy, each of these activities could constitute infringement under the current IP system. Let's see why.

3.1 Repairing

Repairing involves restoring a faulty or broken product or component to a usable state. Yet, since multiple IP rights often protect the products that need to be repaired, this triggers the question of whether unauthorized repairing may amount to IP infringement.

Theoretically, repairing should be allowed under the principle of IP exhaustion. This principle was developed in the 19th century to respond to the need to delineate "a necessary demarcation line between two colliding properties: the intellectual property right of the producer and the common proprietary right of the owner of [the] product he has bought". It provides that once a product is lawfully placed on the market, the IP rights referring to it are exhausted. As a result, the purchaser can resell, use, or donate the product without the holder's consent. Technically, this includes the right to repair because the repair is intended to ensure the products' full use. However, purchasers or third-party repair outlets chosen by them cannot modify the products to such an extent that they become different from the originals since, in this case, exhaustion does not apply. Hence, many repair activities involve replacing components and partially changing the products. Accordingly, courts have often found trademark infringement when the products were changed from the originals. If

The matter is even more complex for products protected by patents, for which courts have distinguished between "repair" and "reconstruction". Notably, repairing a patent-protected product has been found to be lawful only if it does not amount to reconstructing or making the product as described by the patent. Yet, drawing the boundaries between permissible repair and prohibited reconstruction or making is particularly difficult. In addition, the legally acceptable repair of patented products is restricted to their "normal lifespan," a concept left to patent owners' determination. This uncertainty is one of the reasons why most litigation regarding



¹² Ellen MacArthur Foundation (2023b).

¹³ For a detailed analysis see Ghosh and Calboli (2018).

¹⁴ Jehoram (1996), p. 280.

¹⁵ Mohri (2010), pp, 780, 784.

¹⁶ See Kur (2021), p. 228.

the right to repair has occurred in the secondary spare parts market, especially in the automotive industry.¹⁷

3.2 Reselling

Second-hand shopping allows individuals to reduce their carbon footprint by extending the lifespan of the purchased items. It represents viable alternatives to buying new products, which reduce waste and align with the principles of a circular economy. Even though thrift shops are not a new phenomenon, second-hand shopping has recently grown in popularity also thanks to online marketplaces. Still, besides being increasingly popular amongst consumers, the question is, again, to what extent reselling is compatible with the current IP system.

In this instance, there is a stronger case that this practice generally falls under the principle of exhaustion, at least when the goods are bought and resold nationally. On the other hand, there is no international consensus regarding the imports of products first sold abroad, and "parallel imports" – non-authorized imports of genuine products first sold abroad – are considered either lawful or infringing imports depending on national law.²⁰

Moreover, companies involved in buying and reselling IP-protected products can run into trouble when operating nationally (or in regional areas following the principle of regional exhaustion, like the EU) should IP owners have a "legitimate reason ... to oppose further commercialization of the goods". ²¹ In particular, IP owners can object to the resale of their products where the quality has "changed" or "impaired" as part of the reuse. ²² For example, the Court of Justice of the European Union (CJEU) found that IP owners had legitimate reasons to object to the resale of genuine products when these products were sold through channels different than those stipulated in the license agreement – through discount stores in the case at issue – because the sales could potentially damage a brand's reputation. Similarly, the CJEU found that the repackaging of luxury products by third parties also amounted to legitimate reasons because it could undermine the luxurious image of the trademark owner. Accordingly, it denied the application of the principle of IP exhaustion in those instances. ²³

In short, it remains unclear whether reselling constitutes a lawful practice, particularly when it relates to luxury goods and famous marks.

²³ Case C-59/08, Copad SA v. Christian Dior Couture SA, 2009 E.C.R. I-03421; Case C-558/08, Portakabin Ltd., Portakabin BV v. Primakabin BV, 2010 E.C.R. I-0000; Case C-127/09, Coty Prestige Lancaster Group GmbH v. Simex Trading AG, 2010 E.C.R. I-0000.



¹⁷ See generally Götting and Hetmank (2019), p. 239.

¹⁸ Cahoy (2023), pp. 1043, 1049.

¹⁹ Stolz (2022).

²⁰ See Calboli (2011), p. 1241.

²¹ Article 15 Regulation (EU) 2017/1001 of the European Parliament and of the Council of 14 June 2017 on the European Union trademark [2017] O JL 154/1 ("EUTMR") and corresponding Article 15 of 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 L 336/1 ("TMD").

²² EUTMR, Art. 15(2); TMD, Art. 15(2).

3.3 Upcycling

Upcycling is a creative approach to repurposing discarded materials or old items and transforming them into new products. While upcycling has existed for many years, it has recently seen a major boom. Upcycling can take two forms. Hirst, it can transform original products into something new by adding new details, such as, for example, fringes or jewels to a bag. It can also simply reuse the remaining good parts of products to be disposed of to create new items. In both instances, the practice reduces the need for new materials and increases the lifecycle of existing products or parts of them. The products of them.

However, upcycling triggers several legal issues when IP rights protect the materials used. As mentioned, upcycling always results in new products, which makes it more challenging to argue that IP rights are exhausted. Again, the main exception to the principle of exhaustion, specifically trademark exhaustion, is when "material differences" exist between the purchased goods and the goods being resold. In addition, upcycling frequently includes parts of luxury goods prominently displaying the original marks – such as earrings made with buttons from old luxury clothes or cut-up pieces of designer bags. A finding of infringement is certainly more likely in these cases because the upcycled products may create a likelihood of confusion as to the product's source. Even when they do not create confusion, upcycled products can still create a likelihood of association with the famous marks they display and violate anti-dilution laws. 27

Besides trademark infringement, upcycled products could be prohibited as unauthorized derivative works and, as such, a copyright infringement when the products use copyrighted materials from the originals – for example, textiles carrying original patterns or other types of designs. It could be argued that some forms of upcycling could be considered transformative works and fall under the fair use exception. However, if the upcycled work negatively affects the market for the original work – and in many instances, this could be the case – it could be found that it most likely represents (also) a copyright infringement. Upcycled products may also run into design and patent infringement issues, like those related to repair.

3.4 Recycling

Finally, recycling is one of the most relevant practices promoting sustainability and a circular economy. Recycling generally refers to "[t]he reprocessing of discarded waste materials for reuse, which involves collection, sorting, processing, and

²⁷ See Chanel Inc. v. Shiver & Duke LLC, 1:21-cv-01277 (S.D.N.Y. Feb. 12, 2021); Louis Vuitton Malletier S.A.S. v. Sandra Ling Designs, Inc., Civil Action 4:21-CV-352 (S.D. Tex. 24 August 2021); Complaint, Levi Strauss & Co. v. Coperni UK Limited, No. 4:23-cv-04590 (N.D. Cal., 7 September 2023).



²⁴ Gaunt (2022).

²⁵ Calboli (2023a).

²⁶ Calboli (2011), p. 1241.

conversion into raw materials" to be "used in the production of new products". As with the other practices, recycling has become increasingly important due to consumers' rising awareness of the environmental impact of production and the desire to reduce waste.

However, since recycling requires disassembling the original products and transforming them into new materials or reusing components for new items, it has been supported that such actions can amount to patent infringement if the original products or their parts are protected with IP rights.²⁹

Regarding patents, the argument could probably be rebutted because patent rights are exhausted with the first lawful sale, at least in the instances in which the products were first sold and recycled in the same country. ³⁰ Also, patent rights could be considered exhausted when the recyclers save and use some parts for the new products, so long as they do not change or repair the parts. On the other hand, courts have taken contradicting positions – finding infringement or supporting patent exhaustion – when product parts are recycled to repair the original or new products. ³¹ Similar considerations apply to the recycling of products protected with industrial design and design patents.

In addition, recycling may infringe trademarks if the recycled materials display logos or marks from the original products. As with upcycling, it is difficult to argue that trademark rights are exhausted because the new recycled products constitute items of materially different quality showing and carrying the marks. Similarly, some recycled materials or components may contain copyrighted materials. If the recycling process does not lead to their full destruction, and the new products use parts that include copyrighted materials in visible ways, questions may arise as to whether these products are derivative works of the original works or rather transformed products with a different meaning and thus allowed under the fair use exception.³²

4 Is Circularity Doomed? How to Use the Current Exceptions and Limitations and Advocate for New Ones

From the above review, engaging in activities focused on promoting a circular economy without IP owners' consent carries a high risk of a claim of infringement. The current IP system certainly does not encourage any of these activities. In some cases, it tolerates them, but only to a limited extent – for example, it permits reselling when the products are not changed or the resale does not affect their

³² The destruction of copyrighted materials as part of the recycling process could also trigger issues related to moral rights in countries recognizing these rights for the types of products at issue.



^{28 &}quot;Recycling", Oxford Reference, https://www.oxfordreference.com/display/10.1093/oi/authority. 20110803100408736 (last visited 3 December 2023).

²⁹ Vrendenbarg (2023), pp. 4–6.

³⁰ See Ghosh and Calboli (2018), pp. 88-90.

³¹ See AIPPI, "Resolution Question Q205 Exhaustion of IPRs in Cases of Recycling or Repair of Goods", https://www.aippi.fr/upload/Boston%202008%20Q202%20203%20204%20205/rs205english.pdf (last visited 3 December 2023).

reputation, and it allows for basic repairs. Still, not all hope is lost, even under the current IP rules.

Notably, a bolder and more forceful use of the existing exceptions and limitations could go a long way to promote sustainability and circularity. For example, a broader application of the principle of IP exhaustion would be instrumental in increasing the number of companies that could lawfully engage in circular and sustainable activities. Not surprisingly, considering the legal uncertainty and the high risk of facing a complaint from IP owners, many companies prefer to avoid these activities altogether today or feel obliged to seek IP owners' consent. Yet, the principle of exhaustion was developed – first as an academic and judicial doctrine and later as legal provisions - precisely to balance the rights of the legitimate owners of products with those of IP owners. It was meant to respond to the needs of a society that was also seeing unprecedented economic changes following the Industrial Revolution, in which IP rights risked becoming an obstacle to property rights and free movement of goods. Today, we are again facing unprecedented changes, including environmental challenges. Accordingly, we should interpret this principle expansively and consider IP rights as exhausted when this can promote sustainability and circularity unless consumers are truly deceived or harmed.

As readers may remember, the CJEU supported a similar position several decades ago to promote the EU internal market. It adopted a so-called "exhaustion-plus" principle and found exhaustion also when products had been changed, including related to the repackaging of pharmaceuticals, in the name of free movement of goods across the EU.³³ Clearly, creating an internal EU market was more important at that time than prohibiting the resale of genuine goods carrying "material differences". Accordingly, why shouldn't courts adopt a similar approach today and promote a more environmentally friendly society by finding that exhaustion applies to practices such as repairing, reselling, upcycling and recycling, even when the products may differ from the original but are still genuine? Shouldn't the need to promote sustainability and circularity be at least equally relevant in the EU and everywhere else, rather than just promoting free trade and economic integration?

Using disclaimers and other types of notices on the products at issue can also be of help. Specifically, activities focused on promoting a circular economy should be deemed to be lawful when the parties involved place a label or disclaimer on the products clearly stating that they are used, repaired, or have been transformed from the original and that there is no affiliation between the business conducting the activity and the IP owners.³⁴ These notices effectively dispel any risk of consumer confusion or commercial affiliation with the IP owners and can preempt trademark infringement and dilution claims. Moreover, labels and disclaimers can be considered contractual agreements with the purchasers and shield the original IP owners from liability for any defects arising from the products after the repair, resale, upcycling, or recycling.³⁵ Liability remains one of the sticky points, and

³⁵ For the role of disclaimers in product's liability cases, see Franklin (1966), p. 974.



³³ Stothers (2016), p. 169.

³⁴ See Kur (2021), pp. 234–235.

correctly, IP owners do not want to be held liable for third-party activities.³⁶ Thankfully, several courts are already moving in this direction and have ruled that the use of disclaimers could prevent a finding of infringement, for example, in the case of upcycled watches and the aftermarket sales of spare parts for cars.³⁷

No less important, the principle of trademark fair use, a doctrine that allows the use of someone else's trademark without their permission under certain circumstances, could also apply. In the US, for example, trademark fair uses include descriptive uses and nominative fair use. Under the doctrine of "nominative fair use", unrelated parties can use a mark to identify or refer to the trademarked product so long as the reference does not suggest endorsement or affiliation. This doctrine can certainly be applied to the products transformed under the activities at issue as a defense against trademark infringement and dilution. In particular, it can be argued that trademark fair use can preempt a finding of infringement for products with "material differences" – such as repaired and upcycled products – even when the principle of exhaustion would not cover them. In addition, as supported by the US Supreme Court in *KP Permanent Make-Up, Inc. v. Lasting Impression I, Inc.*, 39 the defense can also apply when some confusion may be present.

Similarly, the defense of copyright fair use could be used against claims of copyright infringement. Transformative use involves taking a copyrighted work or part of it and using it in a way that adds new meaning, expression or purpose. ⁴⁰ This is frequently the case for upcycled and even recycled products, and the same can be argued regarding repaired ones. Of course, it may be a stretch to argue that all of the products resulting from the activities addressed here constitute transformations, and IP owners may argue that these products represent derivative works of their original creation. Still, this argument is an important additional one to pursue and promote sustainability and circularity under the current rules.

Finally, new exceptions and limitations could be adopted. However, this option remains the most challenging to implement due to the strong opposition in most industries and the difficulty of implementing new legislation. Still, there are several hopeful examples. In 2015, the US Congress passed an amendment to the Digital Millennium Copyright Act (DMCA), allowing consumers to diagnose, repair or legally modify software-embedded devices without violating copyright laws. Moreover, the US has adopted several laws regarding the rights to repair in the automotive and electronics industries. Within the EU, an exception to design

⁴² Calboli (2023b).



³⁶ Cahoy (2023), p. 1079 (arguing that "So long as a consumer has access to relevant information about modifications and receives an honest description of the lack of connection with the trademark owner, liability based on purchaser confusion may be avoided.").

³⁷ See, inter alia, GMC v. Keystone Auto Indus., 453 F. 3d 351 (6th Cir. 2006).

³⁸ New Kids on the Block v. News Am. Pub., Inc., 971 F.2d 302 (9th Cir. 1992).

³⁹ KP Permanent Make-up, Inc. v. Lasting Impression I, Inc., 543 U.S. 111 (2004).

⁴⁰ See Wong (2009), p. 1075.

⁴¹ 17 U.S.C. § 1201(a)(1).

protection has been introduced for so-called "must match" parts, ⁴³ i.e. the parts that are necessary to restore a product's original appearance, even though the CJEU clarified that the exception is confined to designs and does not extend to other rights, notably trademarks. ⁴⁴ Undoubtedly, establishing specific rules to distinguish what can be done with used products in the post-sale phase without infringing IP rights could bring significant benefits – both to third parties and IP owners.

5 Conclusion

Unquestionably, the interplay between IP rights, sustainability, and the circular economy highlights the tension of how we should rethink the current IP system in light of the growing environmental challenges our society is facing. The negative impact of many industries has long been denounced, leading to increasing initiatives focused on sustainability and circular management of products. However, the current IP system still grants disproportionate rights to IP owners to control their products against activities conducted by third parties. This is problematic, especially if we consider that IP owners still do not have a legal obligation to engage in these activities. Ideally, the current IP laws should be amended to promote a green(er) economy better. Until then, however, we should not hesitate to use the existing exceptions and limitations. Courts should also not hesitate to interpret these exceptions and limitations broadly or develop new judicial defenses to promote a more sustainable and circular economy. Of course, IP owners will push back, arguing that they should be able to control their products fully. Still, the IP system was designed to build a better society for all, not to (only) serve IP owners. Today, this needs to include promoting sustainability and a circular economy.

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⁴⁴ Case 500/14 Ford Motor Company v. Wheeltrims Srl, 2015 ECLI:EU:C:2015:680.



 $^{^{43}}$ Article 110 Council Regulation (EC) No 6/2002 of 12 December 2001 on Community Designs [2001] O JL 3/1.

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