

Consumers and repair of products

SUMMARY

Repairing broken or damaged products can save consumers money by helping them postpone making replacement purchases, while also bringing benefits to the environment through lower waste production and use of resources. The EU's circular economy strategy considers maintenance and repair to be important ways of both keeping resources from being thrown away and of prolonging the lifespan of products.

A 2018 European Commission behavioural study on consumer engagement in the circular economy showed that 64 % of consumers always repair broken or damaged products. The top reason for not repairing products was the high price of repair, followed by the preference to get a new product and the feeling that the old product was obsolete or out of fashion. As for repairers, especially independent ones, they often complain about having no access to original spare parts, technical information, diagnostic software and training, as manufacturers sometimes limit these to their own after-sales services or to recognised repairers of a specific brand.

EU consumer legislation regulates the right of consumers to have products repaired within the legal guarantee period, but not beyond its expiry or for defects not covered by the guarantee. Efforts to ensure access to repair are also included in EU environmental and product legislation. The upcoming ecodesign requirements for TV screens, refrigerators, lighting, household washing machines and dishwashers are expected to ensure that independent repairers have access to spare parts and repair information. The European Parliament has called for extending the ecodesign requirements to non-energy related products, including the reparability of products, more systematically in ecodesign legislation, and extending the duration of legal guarantees. Similar calls have come from a range of stakeholders.



In this Briefing

- The importance of repair
- Consumer behaviour
- EU repair landscape
- Impacts of increased repair
- EU policy
- European Parliament position
- Stakeholder views

The importance of repair

Repair can extend the lifespan of products, and bring benefits to both consumers and the environment: while consumers can save money by delaying replacement purchases, the environment can benefit from reduced production of waste and use of resources.

Recent studies show that products nowadays have an ever-shorter lifespan, break down faster and are increasingly difficult to repair. While not all product obsolescence is due to difficulties with repair (see box), a 2016 [study](#) by the German Environment Agency (UBA) showed that the number of large household appliances replaced within the first five years of their service due to a defect increased from 3.5 % in 2004 to 8.3 % in 2013.¹

[Eurostat](#) figures show that electrical and electronic equipment waste is growing at a rate of 3-5 % per year, and is one of the fastest growing waste streams in the EU. When products do break, options for repair are increasingly limited, whether because of high cost, lack of spare parts or a decline in the number of repair shops.

At the same time, the 2014 EU [circular economy strategy](#) considers maintenance and repair important ways of keeping resources from being thrown away and for prolonging products' lifespan. Repair slows down the 'resource loops', i.e. the flow of materials from production to recycling, which is important, as, even when at the end of the product lifecycle all the materials do get recycled, recycling itself requires additional resources, for example energy. A 2018 OECD [study](#) suggests that the circular economy could bring new economic opportunities to the repair sector globally, especially for early adopting countries, which could become exporters of circular economy expertise and technology.

From the point of view of consumer policy, repair is one of the remedies at the disposal of consumers when goods turn out to be defective or faulty. However, this only applies to goods whose defects become apparent within the [two-year legal guarantee](#) (or extended commercial guarantee) period, in which case repair is arranged and paid for by the seller or the manufacturer, but not after the guarantee has expired.

Consumer behaviour

A 2018 European Commission behavioural [study](#) on consumer engagement in the circular economy, which mainly focused on vacuum cleaners, televisions, dishwashers, smartphones and clothes, showed that 64 % of consumers said they always repaired broken products.² The largest group (26 %) used a professional repair service, followed by those who had the product repaired by the manufacturer and those who had repaired the product themselves.

On average, 36 % of consumers said they did not repair products, but this varied considerably between Member States, from 25 % in Romania to 56 % in the Netherlands. The top reason for not repairing products was the high price of repair, followed by the preference to get a new product and the feeling that the old product was obsolete or out of fashion. Depending on the product,

Obsolescence of products

Products can reach the end of their lifespan and become obsolete in various ways, sometimes also due to impossibility of repair. Obsolescence can be:

- **planned or built-in** – products are designed to deliberately fail after a certain time or a certain number of uses;
- **premature** – products last less than their normal lifespan compared to consumer expectations;
- **indirect** – components required for repair cannot be obtained, or it is not practical or cost-effective to repair the product;
- **incompatibility** – products no longer work properly once an operating system is updated;
- **style obsolescence** – leading consumers to believe that their products are out of date although they are still perfectly functional.

For more on the topic, see EPRS [Briefing](#) on Planned obsolescence: Exploring the issue, 2016.

5-10 % of consumers said they did not know how or where to repair the product, and 8-14 % felt it would require too much effort.

A behavioural experiment conducted as part of the study showed that price (especially the ratio between the cost of repair and the price of replacement) was the most important driver for consumers' decisions on repair, followed by convenience. Repair became less frequent as soon as additional effort was required. Consumers with a preference for new trends and technology were more likely to buy new products, while those who said they had positive attitudes to the circular economy were more likely to choose repair. The study also mentioned the lack of trust in repair services as an important factor in consumer decisions on whether to repair broken products or not.

The experiment also showed that consumers were ready to pay more for products with better reparability – around €29-54 more for vacuum cleaners, €83-105 for dishwashers, €77-171 for TVs, €48-98 for smartphones and €10-30 for coats. Consumers considered that durability was more important than reparability, because they did not expect that durable quality products would break (and thus need repair). Still, when reparability information was provided at the point of purchase in the experiment, consumers were more than twice as likely to choose products with the highest reparability ratings, and their preferences for sustainable products were strongest when information on durability and reparability was presented at the same time.

EU repair landscape

Repair markets differ depending on the Member State and the type of product. The sector consists of a variety of players, ranging from retailers, manufacturers and large repair suppliers to small independent repair shops and repair cafés. According to a Commission [study](#) on the socioeconomic impacts of the increased reparability of products, independent repairers in particular complain about their lack of access to original spare parts, technical information, diagnostic software and training, as manufacturers sometimes limit these only to their own after-sales services or to recognised repairers of a specific brand. As identified by the study, elements that limit the availability of repair include:

- lack of access to spare parts, technical information, diagnostic software and training, especially for independent repair shops but also in general, as most manufacturers are not obliged to guarantee the availability of spare parts, other materials or services over the whole lifespan of a product;
- lack of standardisation and interoperability of key components across brands (for instance, for home appliances), or between different products of the same brand;
- increased technical knowledge required for repairs due to the growing complexity of products and to the increased incorporation of electronic components and component miniaturisation;
- technical barriers making repair impossible due to product design, technical specifications, the choice of materials and components, or to the difficulty of disassembling components (for instance, glued components, welded plastic tubs in washing machines, inaccessible screws, non-standard screws, etc.);
- the unattractive price of repair due to the high price of labour for an essentially tailored service (compared to the lower cost of mass-produced new products, often in countries with lower labour costs);

In addition, the low profitability of repair businesses brings their number down further, making it even harder for consumers to access their services. A 2016 European Parliament [study](#) on longer lifetime for products notes that the number of specialised firms in electronics repair in the Netherlands went down from 4 500 to 2 500 over a 10-year period, while in Poland it decreased by 16 % between 2008 and 2010.

Impacts of increased repair

Several studies explored the wider consequences of increasing the rate of repair in the EU and found the following potential impacts:

- **Environmental impacts:** the above-mentioned Commission [study](#) concluded that the environmental impacts of the increased reparability of products would be 'neutral to positive', with an overall decrease in the use of resources, greenhouse gas (GHG) emissions, energy consumption and waste production. However, in certain cases, when an older, less energy-efficient product has a higher environmental impact during its use phase compared to its production or end-of-life phase, it may be more desirable to replace it with a newer, more efficient one. The above-mentioned German Environment Agency study, on the other hand, found that in all product groups it examined, long-life products did better than short-life variants in all environmental categories. For example, the cumulative energy demand of a short-life washing machine with a lifespan of five years was about 40 % higher compared to a washing machine with a lifespan of 20 years;
- **Economic impacts:** both the Commission study on socioeconomic impacts and the Parliament study on longer lifetime of products mentioned above concluded that increased reparability could have positive and negative economic consequences. Increasing the rate of product repair has the potential to decrease imports of new products into the EU, since the bulk of production is done outside the EU. Retailers and manufacturers could lose part of their turnover and face increased exposure to liability from guarantees or other kinds of extended producer responsibility. At the same time, the repair sector, especially SMEs and social enterprises in the EU, would see a gain in turnover, but on a much smaller scale. In addition, this gain could partially be absorbed by those retailers and manufacturers who would step into the domain of in-house repair services. While modelling performed in the context of the Commission study predicts an increase in research and development in order to meet new technical requirements for greater reparability, the Parliament study predicts diminishing incentives for private research and development if products are no longer replaced by new types at a fast pace;
- **Social impacts:** both above-mentioned Parliament and Commission studies predict positive social impacts for the EU, as loss of jobs due to smaller sales would be offset by the creation of quality jobs in the repair sector. This would increase the demand for low- and medium-skilled jobs and for people with vocational education, in other words, the types of jobs that have been in decline over the past few decades. This positive effect would be spread geographically across the EU, since repair and maintenance are usually done locally.

EU policy

Consumer policy

EU consumer legislation regulates the right of consumers to have products repaired within the legal guarantee period, but does not grant them the right to repair after this period has expired or for defects (for instance, due to improper use) that are not covered by the guarantee. Guarantees are governed by the [Consumer Sales and Guarantee Directive \(CSD\)](#), which regulates the contractual relationship between the consumer and the seller.³ The seller is liable to the consumer for any lack of conformity existing at the time the goods are delivered. The consumer is entitled to have the goods brought into conformity free of charge, and can choose between free repair and free replacement.⁴ If neither repair nor replacement works, the consumer can request an appropriate price reduction, or cancellation of the contract and a refund of the price they have paid. The seller is liable for a lack of conformity that becomes apparent within a period of at least two years from the

delivery of the goods,⁵ but the presumption that the goods were faulty from the start (reversed burden of proof) is only valid for the first six months.⁶

Several studies pointed to the inadequacy of the two-year legal guarantee period and suggested that for durable goods it should be extended to match their expected lifespan more closely.⁷ They noted that, in particular, the reversed burden of proof should be extended, in order to nudge the producers to improve the durability and reparability of their products and to make spare parts more available. This was partially done in the 2019 [Sale of Goods Directive](#), which will replace the current one as from 2022. The new directive does not extend the minimum two-year legal guarantee; however, it extends the reversed burden of proof to one year and allows Member States to introduce or maintain a two-year period.⁸

Commercial guarantees

Under the CSD, sellers or producers can voluntarily offer consumers additional commercial guarantees. In addition to their obligations under the legal guarantee, commercial guarantees oblige sellers or producers to reimburse, replace, repair or service the products if they do not meet certain specifications that go beyond the legal conformity requirements. Currently, these types of guarantees can cover a wide range of issues; for instance, they can apply to material defects or to defects of certain components only, or they can provide a longer guarantee period. A 2017 Parliament [study](#) on the EU lifespan guarantee model recommended requiring producers of technical products either to issue a commercial guarantee that would include information on the minimum lifespan of the product (which they would determine themselves), or to clearly indicate that a guarantee that the product would function during its lifespan is not included. Another 2017 Parliament [study](#) also suggested an alternative, whereby all manufacturers would be required to provide a commercial lifespan guarantee, with the lifespan defined by product-specific standards, for instance in ecodesign legislation. However, neither of these options were included in the recent revision of the CSD. The new CSD does enable sellers or manufacturers to use the commercial guarantees for the expected lifespan of a product, but only if they choose to.

Environmental policy

Efforts to ensure access to repair can also be found in EU environmental and product legislation. In the car industry, [type-approval legislation](#) has been requiring car manufacturers to provide unrestricted access to diagnostic equipment maintenance and repair information to independent repairers since 2007, but this sector has until recently been an exception.⁹ The 2009 [Ecodesign Directive](#) lays down EU-wide rules for improving environmental performance, but only for energy-related products. It requires that, among the parameters for evaluating the potential for improving the environmental aspects of a product, the possibility of extending the lifetime of products be considered, including a minimum guaranteed lifetime, minimum time for availability of spare parts, modularity, upgradeability and reparability. The directive is implemented through product-specific implementing regulations; however the requirements have mainly focused on energy efficiency. Only recently have the requirements on extending the lifetime of products started being added, for instance, for [servers and data storage products](#). During 2019, new ecodesign requirements are expected for more consumer-oriented products, such as TV screens, refrigerators, lighting, household washing machines and dishwashers. The draft regulation on [washing machines](#), for instance, shows that manufacturers will most likely be required to: make the necessary spare parts available for seven years after placing the last unit on the market; deliver them to professional repairers on request within 15 working days; share information with professional repairers; and include information related to durability and repair, including addresses and contacts for professional repair, in the user instructions.

The 2008 [Waste Directive](#) requires Member States to take measures to promote the re-use of products and prepare for re-use activities, notably by encouraging the establishment and support of re-use and repair networks, as well as the use of [economic instruments](#) and procurement criteria. The new [Waste Directive](#) of 2018 introduces additional requirements for Member States as from July 2020, in the form of measures to prevent waste generation, including encouraging the design,

manufacturing and use of products that are repairable, re-usable and upgradable; encouraging the re-use of products and the setting up of systems promoting repair and re-use activities; and encouraging the availability of spare parts, instruction manuals, technical information, or other instruments, equipment or software enabling the repair and re-use of products without compromising their quality and safety. For certain cases, the new minimum requirements for [extended producer-responsibility](#) schemes include a possibility for producers to pay financial contributions depending on the durability, reparability, re-usability and recyclability of their products.

In addition, the 2006 [Batteries Directive](#) requires that appliances be designed in a way that would allow waste batteries and accumulators to be readily removed, while the Waste from Electrical and Electronic Equipment ([WEEE](#)) Directive includes guidelines that aim to promote the repair and preparation for re-use of products through their design. It also requires producers to provide independent repairers with information on maintenance and preparation for re-use within the first year of placing an electrical appliance on the market for the first time.

Among the voluntary instruments, the [EU Ecolabel](#) promotes products that are more durable, repairable, upgradeable and easy to dismantle. It sets requirements for a wide variety of products, not only electrical ones, which producers can choose to apply to their products if they meet the criteria. The [green public procurement](#) criteria used by the Member States are also starting to include requirements on reparability of products.

European Parliament position

In its [resolution](#) of 9 July 2015 on resource efficiency, the Parliament urged the Commission to propose a review of the EU ecodesign legislation that would 'broaden the scope of ecodesign requirements to cover all main product groups, not only energy-related products' and define horizontal requirements and standards for products, including on reparability. It called on the Commission to propose measures on the availability of spare parts, ensuring that products can be repaired during their lifetime.

In its [resolution](#) of 4 July 2017 on a longer lifetime for products, Parliament called for more specific measures promoting product reparability, such as:

- encouraging measures that make the repair attractive to the consumer; using construction techniques and materials that make repair or the replacement of components easier and less expensive;
- discouraging the fixing-in of essential components;
- encouraging manufacturers to develop battery technology to ensure that the lifespan of the batteries better matches the expected lifespan of the product or to make battery replacement more accessible at a price that is proportionate to the price of the product;
- developing the standardisation of spare parts and tools necessary for repair; encouraging manufacturers to provide maintenance guides and repair instructions in different languages available to repair shops when requested;
- extending the guarantee period by a period necessary to carry out the repair;
- creating a voluntary European label that would, among other things, cover product reparability.

In its [resolution](#) of 31 May 2018 on the implementation of the Ecodesign Directive, the Parliament stressed that the legislation implementing the directive should systematically address the full lifecycle of each product group, including by setting up a minimum level of reparability, and that reparability should be facilitated by the availability of spare parts throughout the lifecycle of a product 'at a reasonable price in relation to the total cost of the product'. It called on the Commission to assess if the ecodesign legislation could be used for non-energy-related products and to extend the minimum guarantees for consumer durable goods. It stressed that manufacturers should provide clear instructions enabling consumers and independent repairers to repair products more easily.

Stakeholder views

The European Environmental Bureau ([EEB](#)), which has been campaigning for the right of consumers to repair their own products, welcomed the intention in the 2019 ecodesign package to make appliances more easily repairable, but criticised the decision to make most spare parts and repair manuals available to professional repairers only. Together with the European Environmental Citizens' Organisation for Standardisation ([ECOS](#)), it has [called](#) for ecodesign legislation to ensure that consumers can easily replace, repair or upgrade essential parts of their products, and to make products easier to disassemble and recycle by avoiding combining different materials, particularly plastics, and the use of hazardous chemicals. It has also called for the EU energy label to be expanded to include information on product life expectancy, reparability and the quality of materials used in products.

The European Consumer Organisation BEUC strongly [supports](#) making repair easier for consumers. It calls for the introduction of rules that would make spare parts and repair manuals available for a fixed term or for the duration of the expected product lifetime; making software updates available for the duration of the expected product lifetime; keeping consumers informed at the time of purchase how long updates will be available and for what purpose; and enlisting EU policy-makers' active support for local repair initiatives. It also warns that the reversed burden of proof being shorter than the duration of the legal guarantee means that in practical terms the burden of proof is only on the seller for this shorter period of time. It therefore calls for the two periods to match and for the legal guarantee for durable goods to be extended to match the expected lifetime of a product. BEUC [welcomed](#) the 2019 ecodesign package, but considered that if consumers have to wait for three weeks for spare parts delivery, they are likely to buy a new product instead. It also criticised the obligation for manufacturers only to make available certain spare parts to professional repairers.

[RReuse](#), an organisation that represents social enterprises active in re-use, repair and recycling, also criticised this decision, alongside the provisions that will require products to be easily dismantled, but not disassembled, 'meaning that products could be considered recyclable, not necessarily repairable'. It also called for measures that go beyond product design to support repairs, such as repair subsidies for consumers or lower VAT for second-hand goods and repair services.

The European Federation of Waste Management and Environmental Services (FEAD) also [considers](#) that establishing durability, reparability and recyclability requirements is 'of the utmost importance'. Ecodesign should go beyond energy efficiency and encompass measures for material resource efficiency, which should be improved through the establishment of durability, reparability and recyclability requirements for selected products (such as electronics). It also considers that the Commission should 'ensure and enforce' the condition that fees paid to extended producer responsibility schemes take account of products' reusability and recyclability, as required by the Waste Framework Directive.

[Business Europe](#) considers it vital to nudge consumers towards accepting new circular business models, 'where prevention, reuse, repair, remanufacturing, recycling, and products as a service (sharing, renting, leasing) are central'. It stresses that governments should engage in public-private partnerships with stakeholders to improve reparability options and the availability of re-used or remanufactured goods for consumers. It also supports government campaigns aimed at raising consumer awareness about the advantages of durable and repairable products and awarding good citizen behaviour.

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ENDNOTES

- ¹ See the English summary, p. 43.
- ² In a 2014 [Eurobarometer](#), 77 % of EU consumers said they try to repair broken goods before discarding them.
- ³ The [Consumer Rights Directive](#) requires sellers to inform consumers on the existence of the legal guarantee.
- ⁴ However, if the chosen solution is deemed disproportionate, the trader can refuse this and force the consumer to accept the other remedy (repair instead of replacement, and vice versa). In most Member States there is a 'hierarchy of remedies', which means that the customer must firstly request repair, and only if that does not work or is too expensive, replacement.
- ⁵ Seven EU and EEA Member States provide for a limitation period longer than two years.
- ⁶ Currently, the reversed burden of proof is longer only in Portugal, where it covers two years.
- ⁷ See, for instance, [A longer lifetime for products: Benefits for consumers and companies](#) and [How an EU lifespan guarantee model could be implemented across the European Union](#).
- ⁸ For goods with digital content that provide for continuous supply of the digital content or digital services, the reversed burden of proof will be at least two years, the same as for digital content and digital services, as regulated by the 2019 [Directive on certain aspects concerning contracts for the supply of digital content and digital services](#).
- ⁹ In 2004, the Barroso Commission [proposed](#) the liberalisation of trade in spare parts for cars within the single market, however, as the Council was unable to reach a position, the Juncker Commission [withdrew](#) it in 2014.

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