

Prolonging the lifetime of products

Circularity and repair policy in the European Union

Prolonging the lifetime of products through repair is a key strategy of a circular economy. But several barriers impede the repair of consumer products. How can repair policies at different levels address these barriers?

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A key strategy for moving towards a circular economy (CE) is to maintain material resources at high utility levels and focusing on extending the useful life of products and components. A way to achieve this is to design durable products that last longer, aided by supporting strategies that promote the so-called “R”s (Table 1): Prolonging the lifetime of products and components through re-use, repair, remanufacturing, refurbishment and repurposing (IRP 2018). Policies have been adopted by the European Union (EU) and the member states to promote such activities, including Ecodesign regulations to support longer lifetimes and right-to-repair (R2R) elements; the criminalisation of planned obsolescence; the introduction of local repair vouchers; a repair index; mandates for longer consumer guarantees in consumer law; tax reductions for the repair sector; and infrastructure to promote re-use at the local level (Dalhammar et al. 2021a and 2021b; Maitre-Ekern/Dalhammar 2016).

Barriers for consumer repairs

A fundamental barrier for repair of consumer products is the current economic conditions (Dalhammar et al. 2021a): The current rates of labour and resource taxes mean that new products are comparatively cheaper, whereas repairs are relatively more expensive since they require labour intensive operations. Furthermore, when consumers buy a new product, it comes with both a legal guarantee and a warranty from the manufacturer, whereas in the case of product repair the cost is unknown, and repair shops do not always provide a guarantee for the repair work. This also points to a related problem: If consumers do not buy high-quality products (which are usually more expensive than lower quality ones), there is little incentive to invest in their continued “survival” through repairs (Maitre-Ekern/Dalhammar 2019). Recent literature highlights additional barriers for repairs (see Svensson-Hoglund et al. 2021 for an overview):

- **Product design:** The design often compromises the opportunities for repairs. For instance, repairers report that it is difficult to replace batteries in electronics as they are fixed into the device.
- **Access to spare parts, tools and manuals:** Spare parts are often expensive and could be hard to find, especially for independent repairers outside a manufacturer’s authorized network. The same applies for special tools and repair manuals necessary for conducting repair.
- **Intellectual property rights (IPR):** Manufacturers may use various IPRs (e. g. trademarks, patents and copyrights) to hinder repairs.
- **Contract law and consumer law:** Can be used by manufacturers and retailers to stop repair activities, e. g. by contracts and end-user license agreements that do not allow consumers to repair a broken product.
- **Consumer knowledge and perceptions about their legal rights,** e. g. uncertainty about rights, unawareness of the difference between legal guarantees and warranties from producers.
- **Consumer behaviour and social norms:** E. g. consumers’ negative perceptions about the repair service (quality) and time required for repairs can act as barriers.

Emerging policies to address barriers

As the barriers for consumer repairs are complex and occur at different stages of the lifecycle of products (i. e. some in design, others in use) and are influenced by contextual factors, a policy mix is needed (Russell et al. 2021) which must be adopted at different levels of policymaking (see e. g. Dalhammar et al. 2021a). For example:

- Regulations that address product design and mandatory labelling should primarily be adopted at the EU level;

Term	User	Level
Repair	First user	Product
Re-use	Second hand	Product
Refurbish	Second hand	Product
Repurpose	Second hand in another application	Product
Remanufacture	Second hand	Component
Recycle	Same industry (closed)	Material
	Any other industry (open)	
Recovery	Any	Energy/material

Table 1: The ‘R’s: strategies to extend the lifetime of products and components’

Source: Dalhammar et al. 2021a

Repair policies in Europe		
EU policies	National Policies	Local and regional policies
<ul style="list-style-type: none"> ■ Ecodesign regulations on disassembly, provision of spare parts/repair manuals/tools ■ Draft Battery regulation: Potential to influence battery replacement and repair ■ Proposed: Mandatory labelling of products with respect to lifespan and reparability 	<ul style="list-style-type: none"> ■ Longer consumer guarantees in consumer law ■ Reduced taxes for the repair sector ■ Repair funds organised through producer responsibility schemes ■ Repairability index 	<ul style="list-style-type: none"> ■ Repair networks and repair vouchers ■ Re-use infrastructure: Re-use malls and re-use parks ■ Various support to re-use and second-hand activities ■ Repair cafés and similar activities

Table 2: Examples of repair policies in Europe

- Policies, such as taxes, are primarily decided at the national level, and EU member states also have considerable legal space to make use of consumer law;
- Some policies can be adopted at the regional and local levels, e.g. support for local infrastructure to boost repair and reuse activities.

Table 2 provides a snapshot of emerging policies. At the EU level, the Ecodesign Directive has now been used to promote R2R issues, and for some product groups, new rules have been introduced mandating that manufacturers must provide spare parts, repair manuals and repair tools for independent repairers.

At the national level, France has adopted a mandatory “repairability index” for five product groups with an ambition to introduce a “durability index” by 2024. France is also planning to introduce a “repair fund”, administered through the existing schemes of extended producer responsibility, where producers may have to pay part of the cost for consumer products that need repair within a given timeframe. It would probably be beneficial if the “repairability index” was instead introduced by the EU, to create a “level playing field” for EU industries. Several EU member states have changed consumer law to introduce longer consumer guarantees as a way to provide incentives for manufacturers to design longer-lasting products. Some EU countries have provided tax benefits for the repair sector, for example Sweden has reduced the value added tax for some repair services. At regional and local levels, there are several new initiatives. These include repair vouchers introduced by Vienna and Graz in Austria, repair networks and an infrastructure put in place to collect products for re-use, and support of re-use shops and second-hand activities. Some municipalities have also been instrumental in supporting community repair initiatives like repair cafes (Richter/Dalhammar 2019).

Recently, several repair policies have emerged at various policy levels, being part of a broader agenda to promote longer lifetimes by incentivising repairs and more durable products. However, we should keep in mind that “durability” is more important than “repairability”, even if repairability can promote longer product lifetimes (Dalhammar et al. 2021a). These policies can be expected to promote longer lifetimes of products and are widely supported. However, success is by no means given: Proponents of R2R will have to overcome industry resistance, current embedded practices and governance structures (Svensson-Hoglund et al. 2021) and ingrained consumer habits and attitudes (López Dávila et al. 2021).

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