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Productivity Commission

## Right to Repair

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*Overview & Recommendations*

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The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website ([www.pc.gov.au](http://www.pc.gov.au)).

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The full report is available at: [www.pc.gov.au](http://www.pc.gov.au)



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# OVERVIEW

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## Key points

- This report finds that there are significant and unnecessary barriers to repair for some products. It proposes a suite of measures that aim to enhance consumers' right to repair while providing net benefits to the community.
- A 'right to repair' is the ability of consumers to have their products repaired at a competitive price using a repairer of their choice. Realising this aspiration in a practical way involves a range of policies, including consumer and competition law, intellectual property protections, product labelling, and environmental and resource management.
- Consumers already have rights to have their products repaired, replaced or refunded, and to access spare parts and repair facilities, under consumer guarantees in the Australian Consumer Law. These guarantees are reasonably comprehensive and generally work well, but they should be improved by:
  - introducing a new guarantee for manufacturers to provide software updates for a reasonable time period after the product has been purchased, to reflect the increasing dependence of consumer products on embedded software
  - expanding options for ensuring compliance with, and enforcement of, the guarantees to assist individual consumers to resolve their claims and for the Australian Competition and Consumer Commission to address systemic breaches of consumer guarantees
  - requiring manufacturer warranties to include text stating that entitlements to a remedy under the consumer guarantees do not require consumers to have previously used authorised repair services or spare parts, so that consumers are more aware of their rights.
- There are several opportunities to give independent repairers greater access to repair supplies, and increase competition for repair services, without compromising public safety or discouraging innovation. To this end, the Australian Government should:
  - require suppliers of agricultural machinery to provide access to certain repair supplies to reduce the harm of the pervasive barriers to accessing these inputs
  - undertake more detailed investigations into specific product markets (including mobile phones and tablets, and medical devices) to better understand the extent of harm and examine whether additional regulation would yield net benefits.
  - amend copyright laws to facilitate the accessing and sharing of repair information (such as repair manuals, and repair data hidden behind digital locks).
- A lack of consumer information about a product's repairability or durability is likely to make it difficult for some consumers to select more repairable and durable products based on their preferences, while reducing manufacturers' incentives to develop such products. To address this issue:
  - the Australian Government (in consultation with consumer, environmental, and industry groups) should introduce a product labelling scheme that provides repairability and/or durability information for consumers. A pilot scheme should target a limited number of white goods and consumer electronics products.
- There is also scope to improve the way products are managed over their life, to reduce e-waste ending up in landfill. In particular, the Government should amend product stewardship schemes to allow for reused e-waste to be counted in scheme targets. Further, the use of electronic trackers within product stewardship schemes should increase, to improve awareness of the end-of-life location of e-waste and ensure it is being sent to environmentally-sound facilities.

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# 1 The ‘right to repair’ is a multifaceted policy issue

There are growing concerns in Australia and overseas that repairs of consumer products are becoming progressively more difficult (sometimes impossible), resulting in costly and wasteful outcomes for consumers and the broader community.

The difficulty of repair, at least in part, reflects growth in the number of products that incorporate sophisticated technology. It is now commonplace for cars, fridges, and even coffee machines to have embedded software in them. These technological advances have provided many benefits to consumers, but can also increase the cost and complexity of repairs. The rise in tech-enabled products means that much of the information required to diagnose a fault is digital, embedded into the product itself and held behind ‘digital locks’, requiring passwords or special tools to bypass.

Increasing product complexity means that consumers often have to rely on the manufacturer of the product (or the manufacturer’s authorised repairer) to fix or maintain their product. Manufacturers are typically the main and sometimes only provider of repairs for their products. This has contributed to widespread concerns that some manufacturers are using their strong position in repair markets to restrict competition. Many participants made claims of manufacturers refusing to supply independent repairers with the parts, tools and information they need to do repairs.

Relatedly, there are concerns that the lifespans of everyday products are becoming unnecessarily short and that products are being discarded prematurely, contributing to wasted resources and the proliferation of ‘e-waste’. Some groups also claim that manufacturers are intentionally shortening product life through software updates and design strategies that force consumers into buying new products (‘planned obsolescence’). Such claims are often made with respect to consumer electronics, particularly smart phones.

These concerns have led to calls across the globe for governments to introduce a ‘right to repair’. The ACT Minister for Consumer Affairs, Shane Rattenbury, noted that ‘the right to repair movement has been gaining momentum around the world. Legislative reforms are being introduced and strategies are being prepared’. Although there is no universal definition of a right to repair (box 1), in essence it is about the ability of consumers to have their products repaired at a competitive price using a repairer of their choice.

The Commission is supportive of this desire to make repair easier and less costly. Much of this can be driven by the actions of consumers and manufacturers. For example, good product design, the reuse of materials that would otherwise end up in landfill, and greater awareness of consumer rights and responsibilities, can all play a part in reducing harm to the environment caused by the needless disposal of products that are no longer desired.

For governments though, there is no single policy that enables a right to repair. The Commission has examined a broad range of policies, covering consumer and competition law, intellectual property protections, product design and labelling standards, and environmental and resource management.

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## Box 1      **What is a ‘right to repair’?**

There was no single view of a ‘right to repair’ presented in submissions to this inquiry. Participants most commonly associated a right to repair with:

- independent repairers and consumers having access to the necessary parts, information and equipment needed to repair products, including access to embedded software in products
- consumers having the choice of repairer, with price competition in the repair market
- consumers being able to buy products that are repairable and durable
- repair/reuse of products to reduce e-waste and encourage the growth of the circular economy.

These differing views on what a right to repair entails were reflected in the broad range of policy proposals that were put forward, which included: legal obligations on manufacturers to provide access to repair supplies; strengthening of the consumer guarantees under the Australian Consumer Law; changes to intellectual property protections to facilitate sharing of repair information and access to embedded software; introduction of unfair conduct provisions to address behaviours of manufacturers; and use of minimum product standards and labelling.

A wide range of reforms have also been connected to right to repair policies around the world. Many of these changes have been concentrated in the United States and the European Union.

- In the United States, much of the debate has focused on consumer and competition issues, particularly access to needed spare parts, tools and information, and tensions with intellectual property rights. The term ‘right to repair’ originated from legislation in Massachusetts requiring motor vehicle manufacturers to provide access to diagnostic tools and repair information to independent repairers — an industry agreement then led to nationwide adoption of this approach. Over 30 US states have also been considering wider right to repair legislation for digital products, such as consumer electronics and agricultural machinery, with the New York State Senate passing a version of this legislation in June 2021. And in 2021, the US Federal Trade Commission board voted ‘to ramp up law enforcement against repair restrictions’ in response to an executive order issued by the Biden administration.
- In Europe, a right to repair is more commonly associated with product design and resource management, and is generally pursued through environmental regulations. For example, under the EU Ecodesign Directive, from March 2021 some household appliances are required to have selected spare parts available to professional repairers (and some parts for end-users) for up to ten years, as well as repair and maintenance information. The United Kingdom has similar regulations due to commitments prior to Brexit, while Europe also plans to expand these regulations to cover more products in the future. The European Union has also had similar requirements to the Massachusetts ‘right to repair’ law for motor vehicles since 2010.

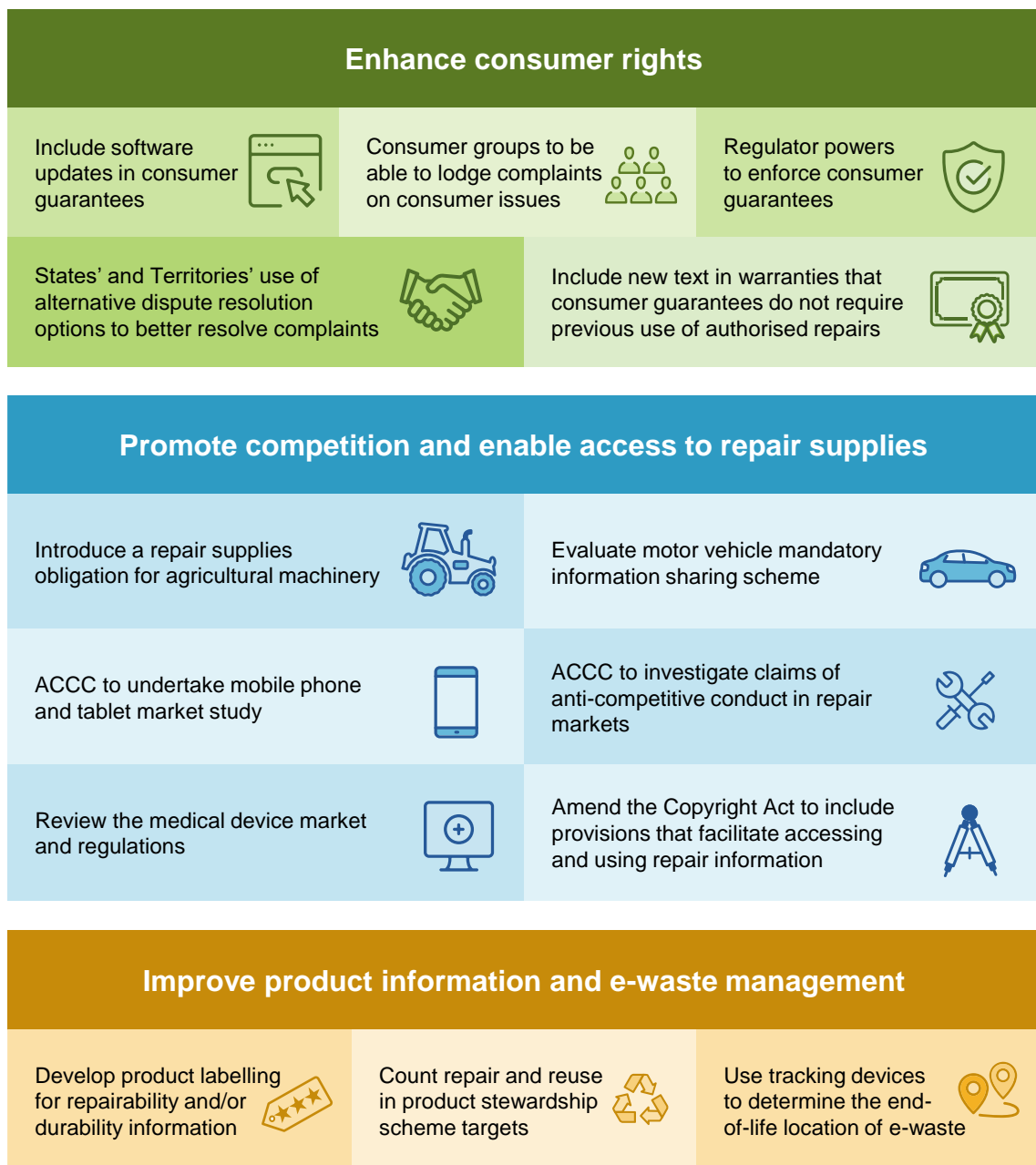
Implementing or amending policies in any of these areas requires careful consideration, balancing the (sometimes competing) interests of consumers, manufacturers, suppliers and repairers. In weighing up the costs and benefits of potential right to repair reforms, the Commission has been mindful that it is not always preferable or cost effective for consumers to repair their products, or to keep them going for as long as possible. Consumers make choices to repair their products by weighing up the cost and convenience of repair, their preferences for newer products, and concerns about the environmental impacts of their consumption choices. Further, it is not reasonable or efficient to require a manufacturer to support a product for an indefinite amount of time; at some point it becomes prohibitively



costly for manufacturers to repair older products. Thus, the inquiry’s focus has been on identifying if there are any unnecessary barriers to repair that are leading to adverse outcomes for the community as a whole, and if so, what policy responses may be needed.

Overall, this report finds that there are barriers to repair for some products that policy reforms could reduce. The proposed reforms fall into three broad categories that collectively support consumers’ ability to get their products repaired (where they choose to do so) (figure 1).

Figure 1 **Reforms to overcome barriers to repair**



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## 2 Enhancing consumer rights

Under the Australian Consumer Law (ACL), when someone buys a product it automatically comes with a range of consumer guarantees, including guarantees that the product will work as expected and that spare parts and repair facilities will be available for a reasonable time after purchase (unless notified otherwise). If the product fails to meet these expectations, the purchaser has rights to a repair, refund or replacement, although they may not be able to choose which of these remedies they receive.

### **The consumer guarantees are reasonably comprehensive**

Although the consumer guarantees are reasonably comprehensive, many participants identified instances in which they felt unable to get the outcome they were entitled to following the failure of a product. The Commission considered several options to improve the way the consumer guarantees are working in practice.

#### **Is further guidance about durability needed?**

A guarantee that products will be of acceptable quality is at the heart of the consumer guarantees under the ACL. This includes that the durability of the product will be acceptable to a ‘reasonable consumer’. There is currently limited specificity in the ACL as to what reasonable durability is for various product classes — it is largely left up to the consumer and the product’s supplier or manufacturer to determine and negotiate an outcome. This uncertainty can lead to disagreement about whether a guarantee applies at all, or result in some consumers not seeking (or being offered) a remedy under the ACL.

Some participants said more clarity was needed about how long products could be expected to last, and some advocated for the Australian Competition and Consumer Commission (ACCC) to develop and provide guidance to that effect. Consumer groups argued that such guidance would benefit individual cases, as well as help re-centre the ACL as a mechanism for seeking a remedy (rather than consumers relying on warranties).

However, the ACCC highlighted the practical difficulties and costliness of developing and maintaining guidance, owing to the range of factors that influence durability — including the type of product, the materials used, and how the product is used. Developing useful guidance would likely also necessitate information gathering powers that ACL regulators currently do not have in relation to producing guidelines.

Participants also questioned the value of such guidance in resolving disputes. In particular, guidance that is non-binding, includes broad time estimates or is heavily caveated would have limited effectiveness in helping consumers obtain a remedy or in driving meaningful systemic change. Indeed, many of those who advocated for more information about product durability said that the information would be more valuable at the point of purchase (to help decide between products), rather than at the point of product failure (to help resolve disputes). Some participants also highlighted the risks that the guidance could become a

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de facto standard, or that manufacturers would be disincentivised to improve the durability of their products beyond the timeframes set out in the guidance.

For these reasons, the Commission concluded additional regulator guidance on durability — as a means of assisting consumers better access their rights to a remedy under consumer guarantees — would be unlikely to have net benefits. Instead, greater benefits are likely to be achieved through improvements to how the consumer guarantees are enforced (discussed below).

### Are changes to the spare parts guarantee needed?

The spare parts guarantee establishes that the manufacturer will take reasonable action to ensure that facilities for repair and parts for a product are reasonably available for a reasonable period, after the product is supplied. What is reasonable depends on a range of factors — this could include the nature of the product, the cost to manufacturers of holding parts, how long a product has been out of production and supply chain practicalities.

The Commission heard from multiple consumers about difficulties in accessing spare parts. For example, one participant said:

My daughter dropped an electronic tablet onto my open oven door and smashed the internal layer of glass in the oven door ... I phoned the oven company and they told me parts were no longer being manufactured for that model.

And another said:

I have a broken coffee machine ... [I] discovered that it needed a small plastic tube with a brass fitting which was available from JURA, the Swiss manufacturer. When I contacted them they refused to supply me direct but would only supply me through a recommended repair outlet.

But there did not appear to be a single underlying reason for why access to spare parts was difficult: in some cases, it appears that spare parts are not produced or held at all, whereas in others it appears that access is the issue. In particular, it did not appear that these experiences were due to systemic deficiencies in the consumer guarantees. Indeed, even participants who expressed dissatisfaction about spare part availability did not advocate for changes that could be implemented through the spare parts guarantee.

### Include a new guarantee for software updates

The ACL was drafted over a decade ago — since then, an increasing number of internet-connected products with embedded software have come to market. As a result, there is uncertainty about whether the consumer guarantees cover the provision of updates for embedded software. Given the changing nature of consumer products, many participants saw a need to amend the ACL so there is an explicit requirement for manufacturers to provide software updates for a reasonable period of time — and even those who expressed concerns about such a requirement generally understood the case for its introduction.

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To provide clarity, the ACL should be amended to include a new consumer guarantee that manufacturers will provide reasonable software updates for a reasonable period of time, similar to the spare parts guarantee. The purpose of this amendment is to provide access to software updates that are critical to maintaining the quality (functionality, security and safety) of software enabled products, for a reasonable time. For this reason, the Commission considers that the guarantee could, at minimum, cover updates that correct operating problems and address security vulnerabilities — but should also, like the other consumer guarantees, rely on what is ‘reasonable’ as a standard.

However, unlike the spare parts guarantee, the new provision should not permit manufacturers to opt out of providing software updates. This is because, whereas the ‘need’ to access spare parts may only affect a small proportion of the consumer base (such as where a part has broken), the need for software updates is likely to be a systemic issue that affects the functionality or operation of an entire product line.

## **Compliance and enforcement options should be expanded**

A well-functioning consumer redress system is essential for the effective operation of the consumer guarantees. It underpins consumer confidence to seek a remedy and sends a signal to businesses about the need to comply with consumer laws. But in practice, consumers often find it difficult to exercise their rights under guarantees, particularly for higher-value products such as cars, electronics and white goods. Commonwealth and State and Territory regulators receive thousands of complaints each year about consumer guarantees.

It is largely left up to consumers to be aware of their rights and to be willing and able to pursue a remedy, such as repair of a broken or faulty product. But, for many, pursuing claims through courts and tribunals can be costly, time consuming and complex, deterring many from seeking redress this way. In many cases, the cost and effort involved in commencing legal action in either a court or tribunal will be greater than the value of the product in question.

Reforms to improve complaint and enforcement options would improve the practical functioning of the consumer guarantees and provide consumers with increased access to remedies.

### **Enable designated consumer groups to lodge super complaints**

To enhance how consumers can exercise their rights, the Australian Government should enable designated consumer groups to lodge ‘super complaints’ with the ACCC, on systemic issues associated with access to consumer guarantees. Once a complaint is lodged by the consumer group, it would be fast tracked by the ACCC, who would be required to provide a response within a certain period (such as 90 days). The response would state how the regulator proposes to deal with the complaint and whether any action will be taken.

The United Kingdom has operated a super complaints process for almost two decades. A super complaints process was also trialled in New South Wales between 2011–2013. The

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NSW trial did not lead to a super complaints regime in New South Wales — this was not due to its failure, but rather a finding that such a scheme would best reside with a national regulator, given the nationally significant issues that super complaints tend to elicit.

A further benefit of a super complaints process is that it provides regulators with an additional source of intelligence and improves transparency around how regulators respond to major consumer issues. On this point, CHOICE said that the super complaints lodged with NSW Fair Trading were escalated to wider, national processes, resulting in outcomes that would not have been achieved without the super complaints mechanism.

One criticism raised was that a super complaints mechanism would divert regulator resources away from other priorities. However, there is no indication that well-established consumer groups are likely to use super complaints processes inappropriately or to derail regulatory priorities. Indeed, the eligibility requirements to be a designated consumer group, such as having a willingness to co-operate with the regulator, would limit the likelihood of frivolous or vexatious super complaints. The experience in the United Kingdom indicates that such complaints are unlikely, with just under 20 complaints in as many years.

Nonetheless, a super complaints process in Australia would need to be supported by operational guidance and principles, to ensure that the process is effective and efficient. This should include requirements for designating (and removing) consumer bodies, evidentiary requirements to support a claim, and the process by which the ACCC would respond.

## Enhance alternative dispute resolution mechanisms

As an alternative to tribunal or court actions, consumers may seek assistance from their State and Territory ACL regulator to help them and businesses come to a solution through alternative dispute resolution (ADR). These are considered preferable to going to court or tribunals as they are generally low cost, flexible and informal.

While State and Territory ACL regulators use a range of ADR methods, such as negotiating and facilitating for consumers, most regulators are unable to compel businesses to participate in a conciliation process or to make enforceable decisions. The exceptions are:

- compulsory conciliation in South Australia — Consumer and Business Services can compel businesses to participate in conciliation processes
- enforceable directions in New South Wales — the Commissioner for Fair Trading can issue a consumer guarantee direction requiring the business to repair, replace or refund certain products (up to the value of \$3000 within six months of the date of purchase), which is enforceable by courts.

There is an opportunity to improve dispute resolution options for consumers seeking to resolve ACL issues. Several participants supported enhancing the ADR powers of State and Territory ACL regulators — for example, the Consumer Action Law Centre proposed that all State and Territory regulators be empowered to make enforceable decisions on

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low-valued claims to provide better access to remedies for faulty products. To achieve this, State and Territory Governments should work together to identify opportunities to enhance alternative dispute resolution options in each jurisdiction, with an emphasis on dispute resolution processes that can result in enforceable outcomes.

### Empower the ACCC to enforce consumer guarantees

At present, there are limits to how the ACCC can take enforcement action in relation to the consumer guarantees, which in turn limits its ability to take action on systemic issues. Currently there are two ways in which the ACCC can take such enforcement action.

- The ACCC could undertake **representative action** on behalf of consumers. However, this power is not well suited to addressing systemic complaints. In part, this is because such cases are akin to individual action, which means that any outcomes achieved are likely to set a weaker precedent for future cases, if any precedent is set at all. Moreover, because the available remedies are limited (repair, replacement or refund), the ACCC is unable to seek penalties or other court orders that are necessary to achieve a deterrent effect.
- The ACCC could rely on **existing contravention provisions** — such as those relating to false, misleading or deceptive conduct or representations. These allow the ACCC to act unilaterally and pursue pecuniary penalties, but stop short of enabling the direct enforcement of the consumer guarantees. For this reason, while some cases have been successfully prosecuted in this way, this option will not always be available for consumer guarantee matters.

As a result of these limits on the ACCC, the consumer guarantees can only be enforced in a piecemeal way. To address this shortcoming, the ACL should be amended to make it a contravention for suppliers and manufacturers to fail to provide a remedy to consumers when legally obliged to do so under the consumer guarantees. This would allow the ACCC (or other ACL regulators) to unilaterally commence court proceedings in relation to the consumer guarantees, without the need to obtain consent from each affected consumer. It would also allow ACL regulators to seek pecuniary penalties from offending suppliers and manufacturers, in addition to obtaining redress for affected consumers. Such an amendment could significantly improve the efficacy of the consumer guarantees.

### Manufacturer warranty terms can discourage repair

Most goods also come with a voluntary time-limited manufacturer warranty (or ‘warranty against defects’), outlining available remedies if the product develops a fault (which typically includes repair). In some cases, consumers may not be aware of the difference between manufacturer warranties and the consumer guarantees. This confusion may cause consumers to fail to seek a remedy when it is within their rights to do so. For example, if consumers use the manufacturer warranty as the main point of reference when deciding whether to seek a remedy for a faulty product, they may be unaware that the consumer guarantees can provide more expansive or longer-lasting rights, which cannot be overridden

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by warranty terms and conditions. Consumers may also not understand a product's warranty terms, which may cause them to make decisions contrary to what they might have otherwise.

A specific issue with consumer awareness is when manufacturer warranties include terms that automatically void the warranty if repairs are undertaken by a non-authorized repairer or use non-authorized parts (even where those repairs or parts are unrelated to a subsequent fault covered by the warranty). The Commission found examples of these terms in warranties for a range of products, including mobile phones, video game consoles, small electronic appliances and watches. Further, even when warranties do not contain these voiding clauses, they often use dense and difficult to understand language, which may lead consumers to incorrectly believe that their warranty would be void if they sought non-authorized repairs. For example, despite the Tractor and Machinery Association noting that non-critical repairs will generally not void their members' warranties, the Commission's survey of agricultural machinery owners found that 53 per cent of respondents that used dealer repair services reported that maintaining their warranty coverage was an 'important' or 'very important' factor influencing their choice of repairer. Research from the United States also found that customer service representatives may be telling consumers their warranty is void, even if the warranty does not explicitly contain such a term (the Commission was unable to test the extent to which this occurs in Australia).

Several participants raised concerns that these warranty voiding clauses are restricting competition in the repair market by discouraging consumers from using third-party repairs during the warranty period without sound justification. The effect of such clauses appear to be compounded by many consumers being unaware that warranty terms and conditions cannot displace their entitlements to a remedy under the consumer guarantees. In particular, a recent court case confirmed that previous use of non-authorized repairs or spare parts does not extinguish a consumer's right to a remedy under the guarantees for any subsequent product fault (as long as the earlier repair has not damaged the product).

Suppliers also have no obligation to mention a consumer's rights under the consumer guarantees when discussing remedies. This can mean that consumers with products with identical defects can have very different outcomes, depending on whether they seek a remedy under the warranty or the guarantees.

### Improving awareness of the consumer guarantees would reduce the deterrent effect of warranty voiding terms

Poor consumer understanding of warranties and consumer guarantees is likely to be limiting their capacity to exercise their rights when a product fails. To help address this issue, the Government should amend the existing ACL regulations that require all manufacturer warranties to contain text about the guarantees, and add additional text stating that entitlements to a remedy under the consumer guarantees do not require consumers to have previously used authorized repair services or spare parts. This would prevent situations where consumers avoid using a repairer of their choice because they incorrectly assume that doing so would extinguish their rights to a remedy if the product subsequently fails (even

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where those repairs or parts are unrelated to the subsequent defect). While changing the required warranty text would create some implementation costs for manufacturers — as their warranties would need to be updated and their customer service staff trained on the new requirements — these should be minimal.

During the course of the inquiry, several participants raised concerns that this proposal for additional warranty text could be interpreted as creating new consumer rights. That is, consumers could interpret the text as giving them the right to take their product to a third-party repairer for a defect covered by a warranty or the consumer guarantees, and then claim compensation for the cost of the repair from the manufacturer. This is not intent of the mandatory text — in most instances, consumers with a faulty or defective product should first approach the manufacturer or supplier for a remedy under the warranty or consumer guarantees. That said, manufacturers should not have a monopoly on *all* repairs during the entire warranty period, particularly as warranties seldom cover accidental damage, making third-party repair a viable source of competition. The government could also ensure the new regulations do not lead to any misunderstandings by undertaking further stakeholder consultation on the final wording of the additional text.

Such improvements to awareness of the consumer guarantees — as well as enforcement of those guarantees (through the introduction of pecuniary penalties) — will go some way towards reducing the deterrent effect of manufacturer warranty terms that void the warranty if any non-authorised repairs occur.

### **3 Enabling access to repair supplies**

To conduct repairs effectively, repairers need access to specific supplies, including:

- spare parts
- tools and equipment (such as special tools, diagnostic software and calibration codes)
- repair information (such as repair manuals, technical specifications or circuit diagrams).

#### **Actions of manufacturers can impede access to repair supplies**

A number of inquiry participants raised concerns that product manufacturers are using their strong position in the repair markets for their products to impede access to these repair supplies.

- Of the concerns raised in submissions, 82 per cent related to a ‘refusal to deal’, where manufacturers refused to provide repair supplies to anyone outside their authorised network. For example, a medical equipment supplier said that it ‘has made many attempts to purchase parts, components and equipment from [manufacturers] and these have been flatly rejected’.
- While less common, other inquiry participants noted that some manufacturers will sell repair supplies to any purchaser, but set their prices prohibitively high (‘margin or price



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squeezing’) or only sell the necessary repair supplies with other repair services or products (‘tying’ or ‘bundling’). For example, an independent phone repairer said that Samsung sets its prices for replacement mobile phone parts at the same level as the cost of parts *and* services in its authorised repair network.

Impediments to accessing repair supplies were commonly reported for consumer electronics (including mobile phones and tablets), agricultural machinery, motor vehicles, domestic appliances and prestige watches.

### Are restrictions on repair supplies harming competition and consumers?

One of the main ways that restrictions on repair supplies can generate harm to consumers is through higher-priced repairs. However, the strength of this effect depends on the characteristics of the individual product market. There are some features of repair markets that can indicate when a product manufacturer may be more likely to restrict competition — including where consumers are ‘locked in’ to using authorised repairers or face difficulties estimating repair costs, as well as where manufacturers are able to generate significant revenues from repair (figure 2).

The strength of competition in the market for the original product (the primary market) is also critical to considering consumer harm. Where product markets are highly competitive, manufacturers may ‘compete away’ the profits they earn in the repair market by lowering prices for the original product, thus compensating consumers for higher repair prices. As such, the consumer harm from limits to third-party repair is likely to be lower than suggested by many inquiry participants. The Commission conducted some empirical analysis to test the extent to which this effect exists, using a natural experiment created by a policy intervention in the United States (that mandated sharing of repair information and tools for motor vehicles). By comparing new car prices and repair prices in the United States and Australia around the time of policy change, the analysis found evidence that some of the gains for consumers seeking repair after the policy change were at least partially offset by higher new car prices.

Beyond changes in prices, repair barriers can also lead to other adverse outcomes for consumers, such as reduced repair access or choice, and increased time and travel costs for repairs (particularly for people living in regional and remote areas). Higher repair prices (and lower primary product prices due to any offsetting price changes) may also tilt consumer decisions towards replacement rather than repair, leading to an increase in product disposal.

Manufacturers often justify restrictions on access to repair supplies as a means of reducing risks from poor-quality third-party repairs, including risks to public safety, cyber security, brand reputation and environmental standards. Although these risks are real, they can be overstated for many products and types of repair. For example, many common, low-risk repairs (such as replacements of smart phone screens or batteries) do not require extensive expertise. Further, many higher-risk repairs are already governed by regulations to prevent adverse outcomes — such as occupational licensing requirements for the repair of most

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installed electrical appliances and motor vehicles, or regulations limiting modifications to vehicle emission controls.

Figure 2      **Approach to identifying competition issues in repair markets**

<b>A. Is there evidence that competition in repair markets is restricted?</b>
<input type="checkbox"/> High-level measures indicate a lack of competition (concentration, barriers to entry, profit margins)
<input type="checkbox"/> Specific cases of manufacturers restricting competition (limits on third-party access to repair supplies)
<b>B. Is there harm to consumers?</b>
<input type="checkbox"/> Consumers are 'locked-in' to the repair market (high switching costs)
<input type="checkbox"/> Consumers face difficulties estimating repair costs (lack of information, complexity)
<input type="checkbox"/> The repair market is large (relative to the primary market)
<input type="checkbox"/> Manufacturers have financial ties to the repair market (in-house repair, contracts)
<input type="checkbox"/> Consumers are not compensated by lower prices in the primary market
<input type="checkbox"/> Adverse non-price outcomes for consumers (reduced choice, inconvenience)
<input type="checkbox"/> Risk from third-party repair (to safety, security, quality or innovation) are limited

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Harm varies by product market, so the Commission examined several markets

Consumer harm due to restrictions on repair supplies varies between product markets, based on the characteristics of both the repair market and primary market for each product. To determine whether barriers to repair are generating harm, the Commission considered the issues raised during the inquiry and applied its framework to specific product markets. Given data limitations and the range of product markets in scope for this inquiry, the Commission took a largely qualitative approach, supported with data where possible, to arrive at a judgment about whether it is likely that competition is being restricted, and consumers (or broader society) are being harmed by higher repair prices, greater inconvenience or reduced choice.

Harm from restrictions on repair supplies was most evident and acute for **agricultural machinery**. Timely repairs are critical for farmers and other owners of agricultural machinery, particularly during harvest periods when downed equipment can result in thousands of dollars in lost production. Undertaking self-repair or using the local independent repairer is therefore often the preferred option.

However, the market for machinery repairs is often dominated by the authorised dealer networks of leading machinery brands. Some farmers claim that these dealers and manufacturers limit access to repair supplies (including diagnostic software tools) for machinery owners and independent repairers. This can lead to higher repair prices, additional effort and inconvenience (such as having to develop workarounds or undertake manual diagnosis due to lack of specialised diagnostic tools) and longer repair delays (creating avoidable financial losses from lost production). The high cost of switching between machinery brands (due to the high cost and durable nature of agricultural machinery) also means owners are often 'locked in' to their repair market.

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The Commission considers there is sufficient evidence of harm to recommend that access to repair supplies should be expanded (box 2). Although the industry has recently committed to improve access for farmers, a similar commitment in the United States has been criticised as ineffective. As such, there is a strong case for additional government intervention to increase third party access, particularly through a ‘repair supplies obligation’ (discussed further below).

**Box 2 Evidence that manufacturer restrictions on access to agricultural repair supplies are causing harm**

Agricultural machinery was one of the most commonly-cited products of concern among inquiry participants, particularly due to restrictions on third-party access to repair supplies (information, tools and parts). To gauge the extent of the concerns, the Commission conducted an online survey of agricultural machinery owners. Among other things, the survey found that:

- respondents reported problems accessing diagnostic software tools (40 per cent), calibration/activation codes (32 per cent), spare parts (32 per cent) and repair manuals (28 per cent). Difficulties accessing diagnostic software tools and calibration/activation codes were higher for machines less than 5 years old (52 per cent and 43 per cent, respectively)
- the majority of respondents that used an authorised repairer would have opted for a third-party repair provider if they had access to the necessary repair supplies (71 per cent).

There are several characteristics of the agricultural machinery market that together indicate that these restrictions are likely to be harming machinery owners through higher repair prices:

- profit margins on spare parts and repair services appear high, suggesting limited competition
- agricultural machinery (plus attachments and accessories) is expensive and durable — 69 per cent of machinery in the Commission’s survey cost over \$100 000 — making it difficult to switch between brands. Interbrand data portability and operability is also constrained
- a few prominent players account for more than half the market for new machinery, with concentration likely much higher in some regions and for specific products, making it unlikely that owners are compensated through lower purchase prices.

Where owners use authorised dealers, the Commission’s survey also found they tended to experience greater repair delays, leading to significant financial losses — 18 per cent of associated losses exceeded \$25 000, compared with 5 per cent for third-party repairers. The Commission also analysed the geographic distribution of authorised and independent repairers in a sample state (New South Wales) and found that independent repairers had a broader geographic spread, covering a number of areas that dealers did not, suggesting that better access to repair supplies could reduce travel costs and repair delays for farmers.

In May 2021, an Australian Competition and Consumer Commission (ACCC) market study on agricultural machinery — which involved consultation with purchasers, manufacturers and the retailing and repair industry, including a survey of purchasers — also concluded that restricted access to repair supplies can limit competition. The ACCC recommended that agricultural machinery be included in any broader right to repair scheme introduced in Australia.

For some other products, there is credible evidence that manufacturer restrictions on repair supplies may be leading to consumer harm. However, further work is required to determine whether such harm is sufficient to warrant policy or regulatory interventions, and what form that intervention might take.

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- For **mobile phones and tablets**, concerns relate to manufacturers of well-known brands, such as Apple, restricting access to specialised tools and information required to repair their devices (such as calibration tools for serialised parts). The harm from these restrictions, such as higher repair prices, is likely to be greater given a highly concentrated market for new devices. Some customers are also unable to easily switch to alternative devices or operating systems in response to higher repair prices, due to ‘ecosystem lock-in’ (that is, switching could result in learning costs, content loss, and product incompatibility). Although the harm from higher prices may be small per consumer, these costs could add up to be significant across the economy given the ubiquity of the devices. However, data limitations and some countervailing considerations (for example, high product turnover that can lessen consumer lock-in) mean that the evidence on the extent of harm is not yet strong enough to justify specific policy interventions at this time.
    - The ACCC is well placed to conduct a market study to further investigate competition issues in this complex and important market.
  - For **medical devices**, the Therapeutic Goods Administration (under the essential principles) requires that manufacturers demonstrate that the design and construction of certain medical devices ‘eliminate or reduce risks as far as possible’ before they can supply them in Australia. Although the essential principles do not explicitly discourage repair, the Department of Health has pointed out that the responsibility for the ongoing safety and efficacy of their medical devices can encourage manufacturers to ‘limit, restrict or prohibit the repair of the medical device’. This approach to regulation fails to account for the potential harm from reduced access to repair services (such as delays in medical treatment and additional costs), particularly for time-sensitive procedures, or users that are highly dependent on their devices. In addition, risks are likely to be low for some devices, or for repairs by highly-qualified independent repairers (including those employed by hospitals).
    - The Commission is therefore recommending an independent public review of existing medical device regulations, to ensure they strike a balance between repair access and device safety that maximises community wellbeing.
  - For **watches**, small independent repairers have been raising concerns for many years that overseas manufacturers are refusing to supply watch repair equipment and components across multiple brands, affecting a significant share of the watch market. Although the aggregate harm to consumers from these restrictions is likely to be limited — due to the small size of the watch repair market in Australia — they can still be damaging, particularly to the viability of small independent watch repair businesses (run by artisan watchmakers), and so may contravene laws against anti-competitive conduct.

The Commission also examined several other product markets, but did not recommend specific policy changes or further action. For example, although several participants raised concerns about the domestic appliance repair market, other recommendations in this report are likely to remedy some of these issues, such as product labelling and improved enforcement of the consumer guarantees. Similarly, the imminent commencement of a

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‘repair supplies obligation’ for motor vehicles (discussed below) means that further policy changes to address consumer harm in the motor vehicle repair market would be premature.

### Facilitating a repair case under the Competition and Consumer Act

Where a lack of repair market competition is causing harm, Part IV of the *Competition and Consumer Act 2010* (CCA) contains provisions to address any anti-competitive behaviour, such as provisions against the misuse of market power or exclusive dealing. However, it can be difficult for a third-party repairer (many of which are small businesses) to pursue a case against a manufacturer, as the evidentiary bar can be high and legal action is costly and time consuming. Notwithstanding these potential barriers, the ACCC is also empowered to investigate anti-competitive conduct and to institute court proceedings.

In the Commission’s view, there would be considerable merit in the ACCC investigating whether conduct in repair markets is contravening the existing provisions, with a view to commencing proceedings. This would also test the impact of recent legislative changes and global repair market developments, as well as provide an educative or deterrent effect to the broader repair market. The ACCC’s initial investigations should focus on the repair market for watches. In particular, there are credible arguments that manufacturer restrictions on the supply of watch repair equipment and components may constitute a misuse of market power under Part IV of the CCA. Specifically, there is a plausible case that the watch repair market might be defined narrowly, that some manufacturers may have substantial market power, and that their conduct may substantially lessen competition by impacting the viability of Australian watch repairers. These arguments have as yet never been tested in an Australian court.

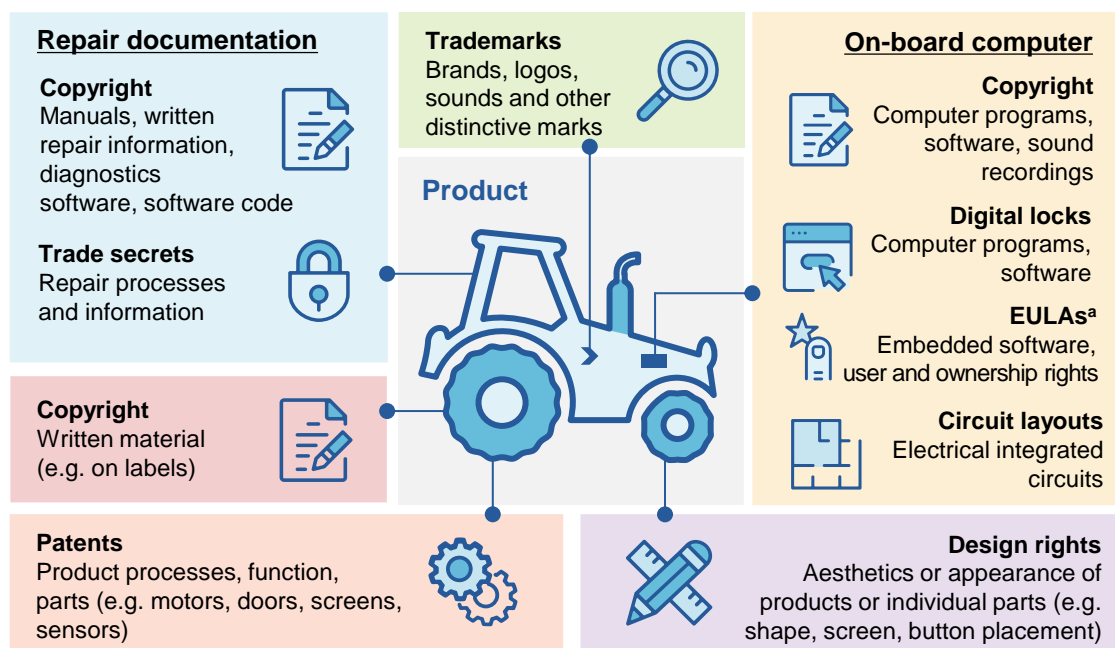
### **Intellectual property protections can impede access to repair information**

Various concerns have been raised during this inquiry that intellectual property (IP) protections are being used to unnecessarily restrict repairs. Different IP rights provide different forms of protection and manufacturers may use multiple IP rights to protect a single product (figure 3).

The most significant of these barriers are copyright laws that prevent third-party repairers from accessing repair information. Two types of repair information are particularly affected:

- *manuals and schematics* — manufacturers can use copyright protections to restrict access to and distribution of information on how to repair products — for example, iFixit raised issues with some product manufacturers exerting their copyright and using legal threats to prevent retransmission of service schematics
- *diagnostic and software tools* — manufacturers can also use ‘digital locks’ that protect embedded software and computer code to prevent third parties from accessing embedded repair data (such as diagnostic data, and consumer and product-use information that would be important to know when troubleshooting and debugging problems).

Figure 3 A single product may be covered by multiple IP protections



<sup>a</sup> End-user licence agreements.

### Introduce a new 'use' exception to the copyright regime

At present, copyright laws inhibit the reproduction of copyrighted materials — including repair information such as manuals and schematics. In the Commission's view, this does not strike the right balance between the interest of rights holders and of others seeking to access and use those materials for the purpose of undertaking repairs — and thus unnecessarily limits the ways in which repair information can be used. To address this, the *Copyright Act 1968* should be amended to include a new 'use' exception that allows for the reproduction and sharing of repair information under certain circumstances.

Participants were split on whether the new 'use' exception should be implemented via a specific exception for the reproduction and sharing of information for the purpose of repair (a **fair dealing** exception), or a general copyright exception (a **fair use** exception). In either case, any use of the copyrighted material would need to be considered 'fair' to be permissible.

- Some participants favoured a repair-specific fair dealing exception because it would provide greater certainty to independent repairers that use of the information for repair purposes is lawful. This is because it would allow lawmakers to explicitly state the circumstances under which third parties may (or may not) use and share copyright information for the purposes of repair. The Australian copyright regime currently takes this approach for other exceptions — including where copyright material is used for research or study; criticism or review; parody or satire; or reporting news.

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- Other participants favoured a general fair use exception because they considered it to be more flexible and technology-neutral, and applicable to any potential use of copyright material, including currently non-existent or unforeseen uses and contexts. This approach is used in the United States and has been previously recommended for adoption by the Productivity Commission in 2016 and the Australian Law Reform Commission in 2013.

In light of the Australian Government’s current reform directions to copyright law, the Commission recommends the introduction of a new fair dealing exception that allows for the reproduction and sharing of repair information. This would allow repair activities to be explicitly and immediately embedded in the copyright exception regime.

That said, the case for a broader and principles-based approach to copyright exceptions is likely to grow over time, as new digital technologies emerge. For this reason, the Commission also recommends that, in the medium to long term, the Australian Government should pursue a more flexible copyright exception regime, including a principles-based ‘fair use’ exception.

### Enable the circumvention of digital locks for repair purposes

Another barrier to repair is the uncertainty around when it is permissible for repairers to circumvent digital locks that block access to repair information (including diagnostic information and software tools). In the copyright regime, the provisions relating to technological protection measures protect only some types of digital locks from circumvention. And, even then, those provisions exhibit a clear intention to permit circumvention for repair purposes, by way of exception. But the ambiguity stems from the way the law has been drafted: it is unclear what preconditions need to be met to fall within the scope of permitted repair activities. To address this uncertainty, the copyright regime should be amended to clarify the circumstances under which repairers may legally circumvent digital locks.

Moreover, to improve consistency in the regime, the prohibition on repairers sharing or obtaining tools for circumventing digital locks should be removed. In particular, the Copyright Act should be amended to permit circumvention devices to be distributed for the purpose of facilitating a permitted act of circumvention. Some participants expressed concern that increasing access to circumvention devices generally could increase the scope for people to use such devices for illegal activities. However, it should be noted that this proposed amendment would not legalise circumvention activities that are currently illegal, nor would it change the existing incentives (set out in the penalty provisions) to engage in illegal activities under the Copyright Act.

### Prohibit contracting out of exceptions

To complement the above reforms, the Copyright Act should be amended to include a ‘contracting out prohibition’ — that is, a provision that deems any agreement, or provision

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of an agreement, that excludes or limits (or has the effect of excluding or limiting) the operation of certain copyright law provisions to have no effect.

Without such a provision, it is likely that some manufacturers would change the way they write contracts, so as to circumvent the new exceptions aimed at facilitating repair. While such practices are not universal, there is clear evidence that some manufacturers do engage in such behaviour. For example, many end-user licensing agreements contain terms that prohibit certain repair-related activities — and some specify that these restrictions operate even where such acts may be permitted under law (including copyright law exceptions). For this reason, a new contracting out prohibition will be crucial to fully realising the benefits of copyright exceptions, including those relating to repair.

## **Are broader right to repair laws needed?**

Several jurisdictions overseas have introduced laws that impose obligations on manufacturers to provide professional repairers (and in some cases product owners) access to repair supplies — including spare parts, tools and repair information. These ‘repair supplies obligations’ typically relate to motor vehicle repair information, and spare parts for some household appliances, but there are proposals to introduce similar obligations on other products, such as consumer electronics and agricultural machinery (box 1).

In 2021, the Australian Government established a repair supplies obligation (due to commence in July 2022) which aims to expand access to repair information for motor vehicles — the *Motor Vehicle Service and Repair Information Sharing Scheme* (MV scheme). The scheme’s objective is to help improve competition in motor vehicle repairs, by requiring manufacturers to share vehicle diagnostic, service and repair information on fair and reasonable commercial terms.

Many participants to this inquiry supported the further adoption of repair supply obligations in Australia. In some cases, they proposed extending obligations to many other products and types of repairs supplies.

While the Commission sees a role for repair supplies obligations, their adoption should be targeted to areas where there is evidence that they are needed. In particular, given that repair markets for different products have varying characteristics and issues, a broad repair supplies obligation would not be a cost-effective or proportionate response to the problems identified. A targeted obligation for specific repair supplies in identified industries is preferable.

### **Review the motor vehicle scheme**

It is still too early to assess how effective the MV scheme will be, but there is an opportunity to learn from how it has been implemented. For this reason, the MV scheme should be independently evaluated once it has been in operation for three years. The evaluation report should be made public. The evaluation should assess whether the scheme is effectively



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meeting its objectives to improve competition and choice, whether the benefits outweigh the costs, and whether any changes are required.

### Introduce new obligations for agricultural machinery

As noted above, there is strong evidence that manufacturers and dealers are restricting access to repair supplies for agricultural machinery (including repair manuals, diagnostic software tools and spare parts). This is causing material harm to farmers and other machinery owners through higher repair prices, reduced access and choice, and greater financial risks from repair delays. The characteristics of the agricultural machinery repair market mean that other mechanisms are unlikely to fully resolve issues with access to repair supplies. In particular, while an individual business' conduct may not necessarily contravene competition law (Part IV of the CCA), the actions of multiple agricultural machinery businesses to restrict access to repair supplies can potentially lead to poor competition in the market overall. And smaller businesses (such as farmers) can find it hard to take action given the considerable costs and high evidentiary bar. Further, bringing agricultural machinery within the scope of consumer laws would also likely fall short in practice — for example, remedies are not necessarily targeted towards repairs (as opposed to refund or replacement).

The Commission is therefore recommending that the Australian Government introduce a repair supplies obligation for agricultural machinery to overcome these issues. The proposed scheme would require manufacturers to provide access to repair information and diagnostic software tools to machinery owners and independent repairers on fair and reasonable commercial terms. This coverage of supplies reflects that repair information and diagnostic software tools are particularly difficult to access for both farmers and independent repairers. The Commission has not recommended the inclusion of spare parts in the initial rollout. Although some access to spare parts has been raised as a concern, an obligation to require access to spare parts would likely considerably increase the complexity of implementation, as well as compliance costs to manufacturers. In addition, there is a possibility that the availability of spare parts could be improved by a scheme that covers information and diagnostic software tools only, such as by increasing the viability of using generic parts. To this end, the decision about whether to include spare parts in the scheme should be reconsidered in the future, including as part of the scheme's evaluation.

In recognition of manufacturers' and dealers' concerns that such an obligation may lead to unintended risks, such as to safety, the scheme should be designed in a way that manages these risks. For example, it could limit some types of information to appropriately credentialed users (as is the case in the MV scheme).

Design of the scheme should commence by the end of 2022. This will provide time for the industry to progress voluntary information-sharing initiatives, which could potentially reduce the scope of a repair supplies obligation. And, like the MV scheme, this scheme should also be evaluated once it has been in operation for three years.

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## 4 Improving product information and e-waste management

There is growing concern in Australia and overseas that the lifespans of everyday products are becoming unnecessarily short ('premature obsolescence') with detrimental impacts on consumers and the environment (including by contributing to the proliferation of e-waste). Some people claim that manufacturers are intentionally shortening the lifespan of products, such as consumer electronics and white goods, to force consumers to purchase new products ('planned obsolescence'). This view is based on the premise that the product had not reached the end of its technical lifespan and that consumers would have preferred to use the product for longer. Claimed planned obsolescence strategies include:

- designing products with structural weak points so they fail after limited use (for example, designing fans with poor quality metal components)
- software that reduces a product's performance (for example, software updates that slow down older models of smart phones)
- designing products in a way that prevents repair or upgrade (for example, using glue instead of screws or soldering components together to construct a device can make it difficult to disassemble for repair).

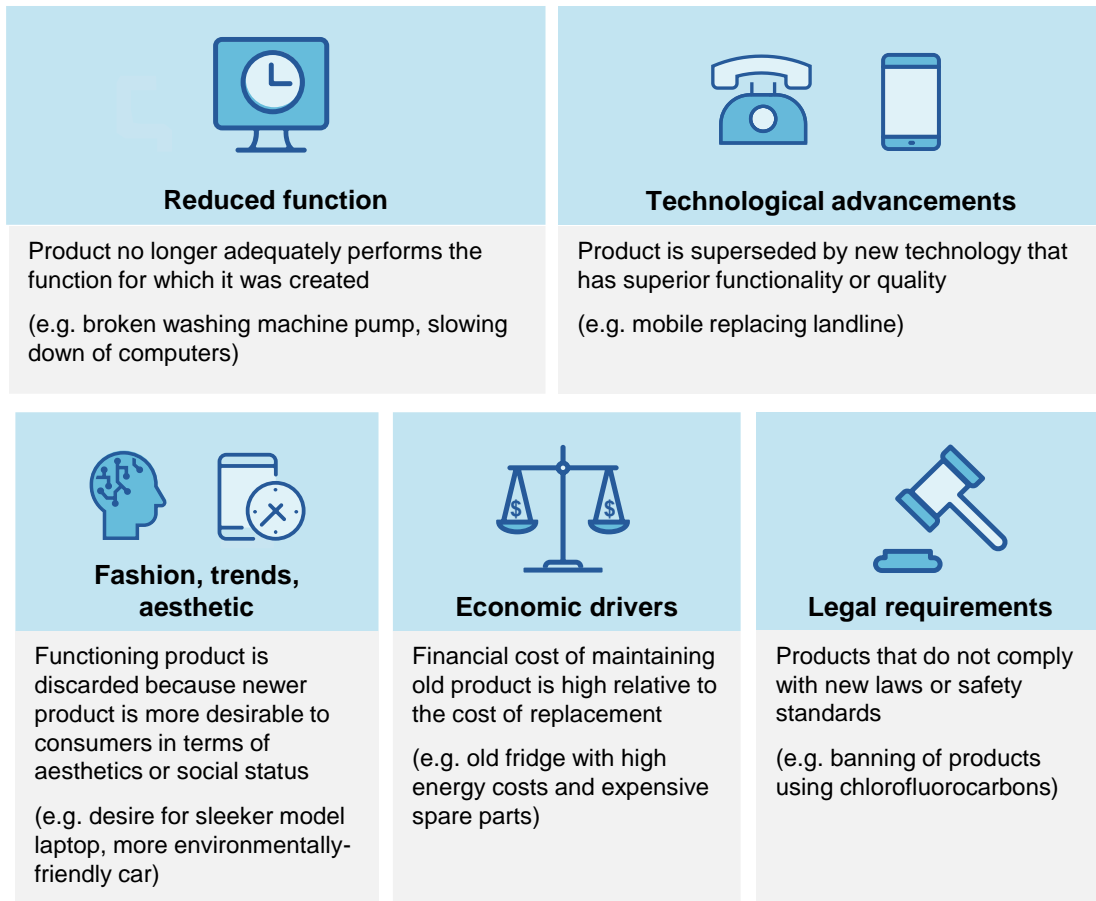
Such strategies, if they occur, could be frustrating for consumers if it means that product repairs are more difficult or they have to replace their products sooner than expected. The Consumer Action Law Centre argued that these strategies could be particularly harmful for vulnerable consumers who can either take on debt to purchase an essential good or try to live without it. However, product obsolescence does not always result in negative outcomes for consumers. It may simply reflect that a product that better meets consumer preferences has replaced an older 'obsolete' product. Indeed, a variety of factors contribute to product obsolescence, including changes in product function, technology, fashion, regulatory standards, and the relative cost of maintenance and repair (figure 4).

Various arguments have been made for governments and regulators to step in and prevent premature obsolescence (whether due to an intentional strategy by the manufacturer or some other reason). These arguments include: protecting consumers from unfair or misleading conduct; overcoming information gaps regarding product qualities (such as durability and repairability) that prevent consumers from making informed purchasing decisions; and reducing the unaccounted environmental impacts associated with short-lived products.

While it is not possible to exclude that some manufacturers engage in strategies to intentionally reduce product lifespans, the Commission has not found evidence to suggest that such practices are widespread. The ACCC submitted that it has seen little evidence of manufacturers designing a product to fail, and that competitive pressures and reputational risk will often mitigate incentives for such behaviour. Although a recent German study found evidence that the average period that consumers held onto some products (such as washing machines, televisions, and notebook laptops) is becoming shorter, this is often driven by

consumers choosing to replace their products with newer ones rather than the products breaking. There is also evidence that some products are becoming more durable. For example, data from surveys conducted by Consumer NZ reveal that product reliability of a range of white goods (such as dishwashers) increased between 2009 and 2018.

Figure 4 **Mind, matter, money: factors contributing to obsolescence**



Further, Australian consumer and competition laws contain provisions that provide some protection against behaviours commonly associated with planned obsolescence (such as prohibitions on misleading conduct). For example, in 2018 the ACCC required HP PPS Australia to compensate customers for misleading information and conduct, for failing to disclose at the time of sale that a subsequent firmware update would cause the printer to reject non-HP printer cartridges (at the time of purchase the printer accepted non-HP printer cartridges). Similar cases have been filed overseas against large tech companies (box 3).

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### Box 3      **Legal cases relating to ‘big tech’ and software**

There have been several cases filed against large technology companies internationally in response to concerns they were using software or other technical devices to deliberately reduce product performance. In 2017, for example, the French environmental association ‘Halte à l’obsolescence programmée’ (HOP) filed a complaint to the DGCCRF (French regulator) that printer companies including Epson, Hewlett Packard, Brother and Canon were inserting sensors into their printer cartridges to stop them working before they were actually empty. The outcome of this case is still pending. In 2017, HOP filed another complaint against Apple for software updates that were slowing down the performance of older smart phone models. Although the French regulator did not find that Apple intentionally reduced the lifespan of the product, it fined Apple for not informing iPhone owners that the updates would likely cause their device to slow down.

In Italy in 2018, the AGCM (Competition Authority) investigated claims that Samsung and Apple had deliberately used software updates to slow down the performance of their older smart phones. The AGCM subsequently found that the software updates were misleading to consumers and fined both companies €5 million. The AGCM also fined Apple an additional €5 million for inadequately informing consumers about the essential characteristics of lithium batteries (such as average duration and deterioration factors).

In the United States, Apple settled a class action lawsuit in 2020 for software updates that slowed down devices. A lawsuit was also issued against Tesla in 2019 alleging that software updates had reduced the battery capacity of Model S and X cars.

With respect to environmental concerns relating to premature obsolescence, there is a clear role for government to reduce the unaccounted environmental impacts associated with the production, consumption and disposal of goods. However, studies used to support policies to reduce environmental impacts by extending product lifespans (such as mandatory product design standards) often omit or do not fully consider other impacts that matter to the community (such as the effect of new policy measures on business costs and product prices). And in many cases, there are more effective and efficient ways (other than mandatory product design standards) to address environmental concerns.

Some inquiry participants suggested that tax incentives or subsidies for repair could reduce the environmental impacts of high rates of product replacement (such as waste to landfill) by reducing the price of repair relative to replacement in order to encourage repair. However, evidence from Europe suggests that these policies are not necessarily effective at influencing additional consumers to undertake repair. And there can be a high cost to achieve this limited additional demand for repair because it is necessary to subsidise all of the consumers who would have repaired their products anyway. Further, like mandatory product design standards, there are more direct ways available to address environmental concerns.

Therefore, additional policies to prevent premature product obsolescence — in the form of mandatory product design standards, tax incentives and subsidies, or expanded consumer protection laws to address planned obsolescence — are unlikely to have net benefits for the community. Existing consumer protection laws, combined with this inquiry’s recommendations — to increase the ability for consumers to access their rights and a new

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product labelling scheme — are likely to address some of the behaviours associated with premature obsolescence.

## **A product labelling scheme for repairability and durability**

For certain products, such as white goods and consumer electronics, many consumers are likely to value information about product durability (such as the average number of years before fault under normal use) or repairability (such as the availability of spare parts) when making purchasing decisions. For example, a recent German study found that consumers considered aspects of durability to be the most important characteristic when purchasing washing machines and smart phones.

Although there are already some sources of information on product durability and repairability available, such as on comparison websites, these do not cover all the types of products or aspects of durability or repairability that are likely to be relevant to consumers. Other sources of information, such as price, do not necessarily provide a good indication of product repairability or durability.

These information gaps could make it difficult for consumers to select more repairable and durable products based on their preferences, while reducing manufacturers' incentives to develop such products. The extent of the market distortion, however, is difficult to gauge and will vary by product.

A product labelling scheme that aggregates relevant information on product repairability and durability in a comparable format would help address these gaps. France recently introduced such a scheme for certain consumer electronic products and white goods. The idea also received support from many inquiry participants. Some participants expressed concerns that a scheme could lead to unnecessary costs (for example, by requiring labels for products for which consumers either already have access to relevant information or would not use the information) and have practical difficulties (for example, differences in climate and consumer behaviour make it difficult to estimate product life). That said, the experience in France on developing and implementing its labelling scheme (which is likely to be applied more broadly throughout the European Union) will be helpful to the development of an Australian scheme.

The Commission therefore recommends that the Australian Government (in consultation with consumer, environmental, and industry groups) introduce a product labelling scheme that provides repairability and/or durability information for consumers. As part of its development, the government should design and implement a pilot scheme (supported by consumer research) for a limited number of products where the benefits are likely to be greatest (such as white goods and consumer electronics). This would help build up the evidence base on the benefits and costs of labelling. The pilot scheme should then be reviewed to assess its effectiveness and whether it should be modified or expanded to include additional products in the formal labelling scheme.

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## Improving the management of e-waste in Australia

Australia's generation of e-waste is growing relatively quickly compared with other forms of waste (more than doubling over the past decade). E-waste from solar panels and lithium-ion batteries is also expected to grow particularly quickly over the next decade. However, e-waste remains less than one per cent of total waste generation (box 4). Key drivers of growth in e-waste include population and economic growth and changing consumer preferences. The electrification and computerisation of previously simple or analogue products (such as toothbrushes) has also been a contributing factor.

The relatively fast growth in e-waste has led to growing community concerns that valuable resources are lost when e-waste is landfilled (roughly half of Australia's e-waste is landfilled, with the remainder recycled). However, markets typically provide strong incentives to prevent the loss of valuable materials contained within e-waste (such as copper, zinc and rare earth metals) when their value exceeds the costs of extraction. Other materials in e-waste can be hazardous (such as mercury, lithium and brominated flame retardants) creating risks to the environment and human health and justifying government intervention.

The main way that the Australian Government has sought to address concerns about e-waste in Australia is through product stewardship schemes under the *Recycling and Waste Reduction Act 2020*. Product stewardship aims to manage the environmental, health and safety impacts of products, including electrical and electronic products that become e-waste. It promotes the shared responsibility of these impacts between consumers, manufacturers and retailers, across the full life cycle of a product.

Existing Australian product stewardship schemes collect and recycle a range of products, including televisions, printers, computers, mobile phones, printer cartridges and some lighting units, while a new battery recycling scheme is about to be launched. These are mostly voluntary industry schemes, although there is one co-regulatory scheme — the National Television and Computer Recycling Scheme (NTCRS), which covers televisions, computers, printers and computer parts. Manufacturers and importers of NTCRS products are required to fund the scheme through a levy payable to one of four co-regulatory bodies, which are responsible for recycling the products (to a minimum standard), based on targets set by government.

### Products stewardship schemes could better facilitate repair and reuse of e-waste

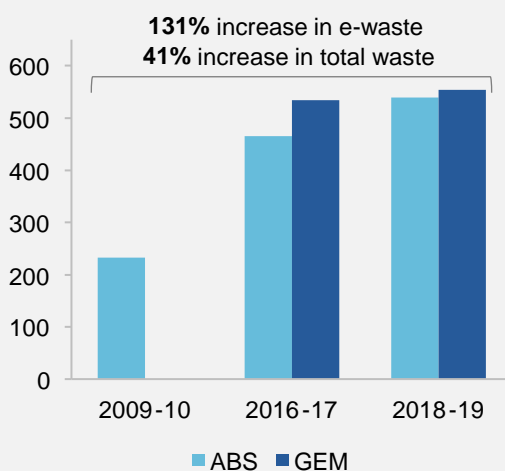
Product stewardship schemes have had some success. In particular, the NTCRS has recycled more than 400 000 tonnes of televisions, computers and printers since 2012-13. However, the current design of product stewardship schemes like the NTCRS may be generating adverse incentives that limit their capacity to provide net benefits to the community.

## Box 4 E-waste growth in Australia and potential impacts

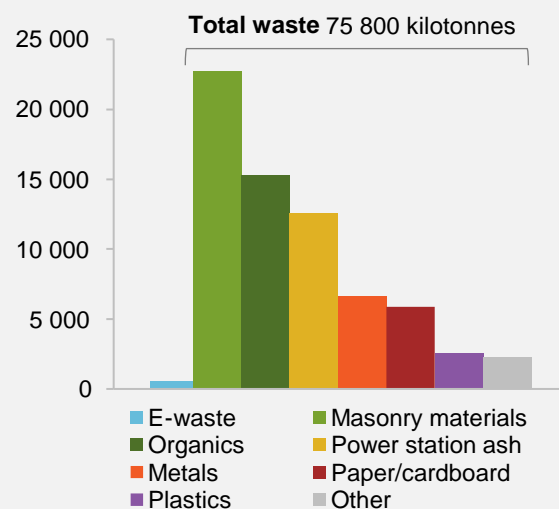
'E-waste' refers to a broad range of electrical and electronic products (including batteries and all products with plugs or cords) that become waste once they are discarded. Australia's annual generation of e-waste has grown relatively quickly over the past decade, compared with other types of waste. Between 2009-10 and 2018-19, the weight of e-waste generated annually has more than doubled (a 131 per cent increase), while total waste increased by 41 per cent (figure).

### E-waste generation has grown but is a small share of total waste

(a) Australia's annual generation of e-waste (kilotonnes)<sup>a</sup>



(b) Mass of different types of waste, 2018-19 (kilotonnes)<sup>b</sup>



<sup>a</sup> GEM refers to the Global E-waste Monitor estimates of Australia's annual e-waste generation.  
<sup>b</sup> E-waste figures are double counted, as e-waste is not a formal waste stream. 'Other' includes glass, textiles, leather and rubber, and other wastes.

The relative hazardousness of e-waste is difficult to measure. Everyday use of electrical and electronic products is unlikely to cause harm, with risks mostly arising during disposal and varying both by disposal method and product materials. Many materials (such as aluminium and gold) are relatively inert and recyclable, others (such as lead and lithium) can be hazardous but are recyclable, and some (such as arsenic and brominated flame retardants) are hazardous and cannot be recycled.

When disposed to landfill, e-waste can affect the environment and human health. For example, heavy metals used in e-waste products and brominated flame retardants (used to coat plastics in a range of products to reduce flammability) can be toxic to humans, plants and aquatic organisms. However, Australian landfills are generally well-regulated and well-managed, making risks to the environment and human health relatively low. That said, landfill quality can vary, particularly in regional and remote areas, generating increased risks from e-waste in some sites.

For one, the NTCRS was designed to be a recycling scheme only, with minimal incentives for co-regulatory bodies to repair and reuse collected e-waste. This results in some otherwise functional or repairable products being dismantled and destroyed for their component materials, rather than being put to higher-valued uses. Reuse of e-waste would help to extend product lifetimes and potentially lead to better environmental outcomes than recycling.

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As such, the Australian Government should remove the disincentives against repair and reuse in the NTCRS, by amending the scheme’s annual recycling targets to also count reused e-waste products. This would allow NTCRS co-regulatory bodies to determine the best outcome for collected e-waste, instead of requiring all of it to be recycled. Any future product stewardship schemes should also include repair and reuse as options within their targets, where practical. As part of these changes to product stewardship scheme targets, ‘reuse’ would also need to be clearly defined, to reduce opportunities for manipulation or ‘gaming’.

Due to limited domestic recycling capacity — driven in part by insufficient scale for cost-effective mechanical recycling and a highly dispersed population — Australia also exports much of its e-waste for recycling. Although this can be a cost-effective and environmentally responsible solution, some overseas recycling facilities lack adequate infrastructure, regulation and local government safety nets to prevent adverse environmental and health outcomes. As such, permitting reuse within product stewardship schemes also requires careful implementation to reduce the risk of more products ending up in poor-quality recycling facilities overseas, generating worse health and environmental outcomes.

In addition, the Australian Government should make better use of electronic tracking devices to monitor the end-of-life locations for Australian e-waste. Given constraints on the use of surveillance devices in some states and territories, this could start with an increased use of electronic tracking devices in the NTCRS.



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# Findings and recommendations

## The Australian repair sector

### FINDING 2.1 THE AUSTRALIAN REPAIR SECTOR

A consumer's decision to repair or replace a broken product is primarily driven by price. The inconvenience of repair and consumer preferences for up-to-date products are also likely to make repair less appealing.

The repair sector accounts for about one per cent of all business revenue in Australia and has grown modestly over the past decade.

- Most repair activity (revenue, number of businesses and workers) comes from industries with more expensive products, such as motor vehicles and machinery, that require regular maintenance and where repair is often more cost-effective than replacement.
- There was less activity in repair industries for relatively less expensive products, such as electronics and appliances, where replacement tends to be more attractive. This is likely due to the relatively low and falling prices of these products over time, rapid technological development, and consumer preferences for new and up-to-date products.

## Existing consumer rights under consumer law

### FINDING 3.1 CONSUMERS SOMETIMES LACK THE ABILITY TO EXERCISE EXISTING RIGHTS

The Australian Consumer Law provides consumers with rights to obtain a remedy (repair, replacement or refund) for defective products through consumer guarantees.

These guarantees are reasonably comprehensive but consumers' ability to access their rights could be enhanced by:

- clarifying existing rights by explicitly requiring manufacturers to provide software updates for a reasonable period
- enabling a super complaints process to complement the existing Australian Consumer and Competition Commission's (ACCC) practices for identifying and dealing with potential systemic breaches of guarantees
- enhancing relevant State and Territory regulators' alternative dispute resolution options for individual cases, through options that can result in enforceable outcomes
- empowering the ACCC to seek pecuniary penalties on suppliers and manufacturers that fail to provide a remedy when required to do so, in addition to obtaining redress for affected consumers.

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#### RECOMMENDATION 3.1 REQUIRE SOFTWARE UPDATES FOR A REASONABLE PERIOD

The Australian Government should amend the Australian Consumer Law to include a new consumer guarantee for manufacturers to provide reasonable software updates for a reasonable time period after the product has been purchased, with no option to limit or exclude that guarantee.

#### RECOMMENDATION 3.2 ENABLE A SUPER COMPLAINTS PROCESS

The Australian Government should enable designated consumer groups to lodge 'super complaints' on systemic issues associated with access to consumer guarantees, with the complaints to be fast tracked and responded to by the Australian Competition and Consumer Commission (ACCC).

The Australian Government should design the super complaints system in consultation with the ACCC, relevant State and Territory regulators, and consumer and industry groups. The system should be underpinned by operational principles — including criteria for the assignment (or removal) of designated consumer bodies, evidentiary requirements to support a complaint, and the process and time period by which the ACCC should respond.

#### RECOMMENDATION 3.3 ENHANCE ALTERNATIVE DISPUTE RESOLUTION POWERS

The State and Territory Governments should work together to identify opportunities to enhance alternative dispute resolution options in each jurisdiction to better resolve complaints about the consumer guarantees. In examining such opportunities, governments should consider:

- the extent to which consumers in some jurisdictions face less comprehensive access to alternative dispute resolution and whether this is consistent with a national consumer framework
- funding options to adequately resource enhanced alternative dispute resolutions
- the net benefit of options that enable regulators to make enforceable decisions or facilitate enforceable outcomes
- as an alternative, the net benefit of certain product markets (such as motor vehicles) having an ombudsman to make enforceable decisions or facilitate enforceable outcomes.

The outcomes of this activity should be published.

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#### RECOMMENDATION 3.4 ENHANCE REGULATOR POWERS TO ENFORCE GUARANTEES

The Australian Government should, in consultation with State and Territory Governments, amend the Australian Consumer Law to make it a contravention for suppliers and manufacturers to fail to provide a remedy to consumers when legally obliged to do so under the consumer guarantees. This would empower the Australian Consumer and Competition Commission to seek pecuniary penalties, in addition to redress for affected consumers.

## Competition in repair markets

#### FINDING 4.2 SOME LIMITS ON ACCESS TO REPAIR SUPPLIES LACK SOUND JUSTIFICATION

There is no evidence of a systemic competition problem across all repair markets. For some products, however, manufacturers are limiting third-party access to repair supplies (such as information, tools and parts).

While manufacturers often justify these limits as a way to safeguard against risks from poor-quality repair (particularly for safety and security), these risks can be overstated for many products and types of repair. Where manufacturers have genuine reasons to restrict access to third-party repair, they should show clear and verifiable evidence of the associated risks.

#### FINDING 4.3 LIMITS ON REPAIR SUPPLIES FOR AGRICULTURAL MACHINERY ARE CAUSING HARM

Manufacturer and dealer restrictions on repair supplies for agricultural machinery (including repair manuals, diagnostic software tools and spare parts) are causing material harm to farmers and other machinery owners through higher repair prices, reduced access and choice, and greater financial risks from repair delays. There is a strong case for additional measures to increase third-party access to repair supplies (recommendation 8.2).

#### FINDING 4.4 EXTENT OF HARM IN MOBILE PHONE AND TABLET REPAIR MARKETS IS UNCERTAIN

Manufacturer restrictions on repair supplies for mobile phones and tablets are likely to be resulting in some consumer harm (through higher repair prices and reduced choice of repairer), which could be material in aggregate, given the ubiquitous nature of such goods and the concentrated market for new devices. However, data limitations and some countervailing market characteristics (such as high product turnover) mean that the evidence base is insufficient to justify specific policy interventions at this time.

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#### RECOMMENDATION 4.1 UNDERTAKE MOBILE PHONE AND TABLET MARKET STUDY

The Australian Competition and Consumer Commission should undertake a market study of the mobile phone and tablet market, to further examine the nature of the market, the magnitude of harm from repair barriers, and the merits of different policy responses (such as a repair supplies obligation on manufacturers).

#### FINDING 4.5 MEDICAL DEVICE REGULATIONS DO NOT CONSIDER REPAIR ACCESS

Current regulations of medical devices — such as the ‘essential principles’ in the Therapeutic Goods (Medical Devices) Regulations 2002 — aim to minimise safety risks to patients and device users, which has the effect of encouraging manufacturers to restrict access to repair. The regulations do not appear to account for the potential harm from reduced access to repair services (such as medical delays and additional costs), or that risks are likely to be low for some devices or for repairs completed by highly-qualified independent repairers.

#### RECOMMENDATION 4.2 REVIEW THE MEDICAL DEVICE MARKET AND REGULATIONS

The Australian Government should conduct an independent public review of existing medical device regulations to assess whether they strike a balance between repair access and device safety that maximises community wellbeing. The review should consider whether current regulations create incentives for manufacturers to restrict repair, and examine potential ways to improve repair access for low-risk medical devices or for highly-qualified independent repair technicians.

#### FINDING 4.6 HARM FROM RESTRICTIONS ON WATCH REPAIR SUPPLIES IS SMALL

The high degree of market concentration and consumer lock-in in the prestige watch market in Australia suggests manufacturer restrictions on the supply of watch repair equipment and components to small independent repairers are resulting in consumer harm. In aggregate, this harm is likely to be limited due to the small size of the prestige watch repair market in Australia.

Nonetheless, there are credible arguments that these restrictions may constitute a misuse of market power under Australian competition law (s. 46 of the *Competition and Consumer Act 2010*) that substantially lessens competition in the watch repair market by affecting the viability of local watch repairers. Such arguments have never been tested in an Australian court.

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#### FINDING 4.7 ACCC ACTION COULD ADDRESS CONCERNS ABOUT ENFORCEMENT

There are considerable costs and a high evidentiary threshold for bringing cases under the existing competition provisions in Part IV of the *Competition and Consumer Act 2010* — such as the misuse of market power, exclusive dealing and anti-competitive agreement provisions. This is likely to discourage third-party repairers (particularly smaller businesses, such as watch repairers) from taking action against manufacturers and authorised dealers.

However, the Australian Competition and Consumer Commission already has powers to investigate credible cases of anti-competitive conduct in repair markets and, if warranted, institute court proceedings. New cases could test the impact of recent legislative changes and other global repair market developments, as well as provide an educative or deterrent effect for broader repair market conduct.

#### RECOMMENDATION 4.3 FURTHER INVESTIGATE CONDUCT IN WATCH REPAIR MARKETS

The Australian Competition and Consumer Commission (ACCC) should investigate whether manufacturer conduct in repair markets is contravening the restrictive trade practices provisions of the *Competition and Consumer Act 2010*, with a view to commencing proceedings. The ACCC's investigation should initially focus on whether the alleged conduct of watch manufacturers is breaching the misuse of market power (s. 46) provisions.

#### FINDING 4.1 MANUFACTURER WARRANTIES CAN DISCOURAGE INDEPENDENT REPAIR

Some manufacturer warranties include terms that automatically void the warranty if repairs are undertaken by a non-authorised repairer or use non-authorised parts. Other warranties often contain dense and difficult to understand language, which can lead consumers to mistakenly believe that such terms exist. These voiding clauses can deter consumers from using third-party repairs during the warranty period, limiting their choice of repairer and reducing competition in repair markets.

Many consumers are also not aware that consumer guarantees under the Australian Consumer Law cannot be displaced by terms in warranties, and the guarantees are not extinguished if consumers have previously used non-authorised repair services or spare parts (as long as those services have not caused any damage to the product).

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#### RECOMMENDATION 4.4 ADD NEW MANDATORY WARRANTY TEXT

The Australian Government should amend r. 90 of the Competition and Consumer Regulations 2010, to require manufacturer warranties ('warranties against defect') on goods to include text (located in a prominent position in the warranty) stating that entitlements to a remedy under the consumer guarantees do not require consumers to have previously used authorised repair services or spare parts. The final wording of the text should be subject to consultation with industry and consumer groups.

#### FINDING 4.8 A PROHIBITION ON WARRANTY VOIDING CLAUSES IS NOT JUSTIFIED AT THIS TIME

Improvements to awareness of the consumer guarantees (through mandatory warranty text — recommendation 4.4) and the enforcement of those guarantees (through the introduction of pecuniary penalties — recommendation 3.4) will go some way towards reducing the deterrent effect of manufacturer warranty terms that void the warranty if any non-authorised repairs occur. Although a prohibition on such terms may have some additional benefits — through simplifying differences between warranties and the guarantees, clarifying ambiguous warranty language and covering non-consumer purchases — it may also increase costs for manufacturers and consumers, so is not justified at this time.

## Intellectual property protections and repair

#### FINDING 5.1 COPYRIGHT LAWS ARE AN IMPEDIMENT TO ACCESSING REPAIR INFORMATION

Copyright laws that prevent third-party repairers from accessing repair information (such as repair manuals and diagnostic data) are the most significant unnecessary intellectual property-related barrier to repair in Australia.

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#### RECOMMENDATION 5.1 AMEND THE TECHNOLOGICAL PROTECTION MEASURES REGIME

The Australian Government should amend the technological protection measures (TPM) regime in the *Copyright Act 1968* and Copyright Regulations 2017 to better facilitate repairers' access to embedded information protected by TPMs necessary for issue diagnosis and repair. To do this, the Government should:

- amend the existing TPM circumvention exception for repair in regulation 40(2)(d) of the Copyright Regulations 2017, to clarify its scope and application to permit circumvention in order to access information necessary to perform repairs to the product in which the TPM is installed
- amend section 116AO of the *Copyright Act 1968*, to permit the distribution of TPM circumvention devices for the purpose of facilitating a permitted act of circumvention (such as circumvention for the purpose of repairing a product in regulation 40(2)(d) of the Copyright Regulations 2017).

#### RECOMMENDATION 5.2 INTRODUCE A NEW 'USE' EXCEPTION IN THE COPYRIGHT ACT

The Australian Government should amend the *Copyright Act 1968* to include an exception that allows for the reproduction and sharing of repair information. In the immediate term, this exception should be included through the existing fair dealing framework in the Copyright Act.

In the medium to long term, the Australian Government should pursue a more flexible copyright exception regime, including a principles-based 'fair use' exception.

#### RECOMMENDATION 5.3 PROHIBIT CONTRACTING OUT OF COPYRIGHT EXCEPTIONS

To give full effect to copyright exceptions, including those relating to repair, the Australian Government should amend the *Copyright Act 1968* to make unenforceable any part of an agreement restricting or preventing a use of copyright material permitted by copyright exceptions.

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## Product obsolescence

### FINDING 6.1 EVIDENCE ON PREMATURE OBSOLESCENCE IS MIXED

There is growing community concern in Australia and overseas that product lifespans are becoming unnecessarily short ('premature obsolescence'), with detrimental impacts on consumers and the environment.

However, the evidence is mixed on whether premature obsolescence is a significant problem.

- While it is not possible to exclude that some manufacturers engage in strategies to intentionally reduce product lifespans, such practices are unlikely to be widespread.
- The lifespans of some products are becoming shorter, but this is often driven by consumers choosing to replace their products with newer ones rather than the products breaking; indeed, some products are becoming more durable.
- For certain types of products (such as white goods and consumer electronics), some consumers find it difficult to access relevant information about product reparability and durability when making purchasing decisions. Such information gaps could contribute to premature obsolescence by preventing consumers from selecting more repairable and durable products based on their preferences, and reducing manufacturers' incentives to develop these products.

### FINDING 6.2 INTERVENTIONIST RESPONSES TO PREMATURE OBSOLESCENCE ARE NOT NEEDED

Additional policies to prevent premature product obsolescence — in the form of mandatory product design standards, tax incentives and subsidies, or expanded consumer protection laws — are unlikely to have net benefits for the community. The Commission does not support such proposals.

Mandatory product design standards, as well as tax incentives and subsidies for repair, are costly and unlikely to be an effective way of addressing concerns about the environmental costs associated with premature obsolescence.

Existing consumer protection laws, combined with this inquiry's recommendations — to increase the ability for consumers to access their rights and a new product labelling scheme (recommendation 6.1) — are likely to address some of the behaviours associated with premature obsolescence.



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#### FINDING 6.3 BETTER CONSUMER INFORMATION COULD LEAD TO LONGER-LIVED PRODUCTS

Product labelling is likely to help address information gaps in product repairability and durability for certain products, such as white goods and consumer electronics (finding 6.1). This can assist consumers to purchase more repairable and durable products that align with their preferences and encourage manufacturers to develop these types of products.

#### RECOMMENDATION 6.1 DEVELOP AND INTRODUCE A PRODUCT LABELLING SCHEME

The Australian Government should develop a product labelling scheme that provides consumer information about product repairability and/or durability. It should develop the scheme in three key stages.

1. Commit to introducing a product labelling scheme within five years and establish a working group (comprising relevant government agencies) to steer its development in consultation with consumer, industry and environmental groups.
2. Design and implement a pilot scheme for products where it is likely to have the most benefits (such as white goods and consumer electronics).
3. Review the pilot scheme within two years of commencement to assess its effectiveness and whether it should be modified or expanded to include additional products in the formal scheme.

## Managing e-waste

#### FINDING 7.1 E-WASTE IS A SMALL BUT GROWING WASTE STREAM

Annual e-waste generation is growing relatively quickly compared to other waste streams (more than doubling by weight between 2009-10 and 2018-19), but is a small share (less than one per cent by weight) of total waste generated in Australia.

Information on e-waste is limited, but available data suggest that:

- the main sources of e-waste (by weight) over the past decade were tools, washing machines, air conditioners, small domestic appliances (such as adapters, irons and clocks), cooking appliances (such as food processors and grills), and cathode ray tube televisions
- solar panels and lithium-ion batteries are expected to generate growing quantities of e-waste over the coming decade.

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#### FINDING 7.2 RISKS FROM E-WASTE IN LANDFILL ARE RELATIVELY LOW

Australia's landfills are generally well-regulated and well-managed, such that risks to the environment and human health from hazardous materials in e-waste are relatively low. That said, landfill quality varies, particularly among smaller and older landfill sites in regional and remote areas, generating increased risks from e-waste in some sites.

#### RECOMMENDATION 7.1 INCLUDE REUSE WITHIN NTCRS ANNUAL RECYCLING TARGETS

The Australian Government should amend the Recycling and Waste Reduction (Product Stewardship — Televisions and Computers) Rules 2021 to count e-waste products that have been repaired and reused towards the annual targets of the National Television and Computer Recycling Scheme (NTCRS) co-regulatory bodies.

The exact design features that need to be incorporated into the NTCRS to enable reuse options should be determined in consultation with the scheme's liable parties and co-regulatory bodies. The changes should be designed in a way that minimise any adverse incentives, including risks from:

- manipulating (or 'gaming' of) scheme targets, when the same products cycle through the scheme without legitimately being reused
- unlawful exports for reuse that result in more products in the informal recycling sector, generating worse health and environmental outcomes
- consumer concerns about data security for repaired and reused products.

Any future product stewardship schemes should also include repair and reuse as options within their targets, where practical.

#### RECOMMENDATION 7.2 USE TRACKING DEVICES TO MONITOR E-WASTE EXPORTS

The Australian Government should make greater use of electronic tracking devices to determine the end-of-life outcomes of Australian e-waste collected for recycling.

- At a minimum, the Government should increase the National Television and Computer Recycling Scheme's use of tracking devices, to better monitor co-regulatory bodies and their downstream recyclers and logistic providers.
- The Department of Agriculture, Water and the Environment should also examine different ways to use tracking devices in e-waste products outside the scope of product stewardship schemes, taking into account constraints on the use of surveillance devices in some states and territories.

Where possible, tracking should be conducted by independent third-party auditors, using risk-based sampling that focuses on the types of products and supply chains that present the highest risk of unlawful export or disposal of e-waste.

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## Are broader right to repair laws needed?

### RECOMMENDATION 8.1 EVALUATE THE MOTOR VEHICLE INFORMATION SHARING SCHEME

The Australian Government should establish an independent evaluation of the Motor Vehicle Service and Repair Information Sharing Scheme, once it has been in operation for three years. The report of the evaluation should be made public.

The evaluation should assess whether the scheme is effectively meeting its objectives to improve competition and choice, whether the benefits outweigh the costs, and whether any changes are required.

### RECOMMENDATION 8.2 INTRODUCE A REPAIR SUPPLIES OBLIGATION ON AGRICULTURAL MACHINERY

The Australian Government should introduce a repair supplies obligation on agricultural machinery that requires manufacturers to provide access to repair information and diagnostic software tools to machinery owners and independent repairers on fair and reasonable commercial terms.

Design of the scheme should commence by the end of 2022. To inform scheme design and implementation, the Australian Government should:

- monitor developments in the Motor Vehicle Service and Repair Information Sharing Scheme, as well as voluntary information sharing within the agricultural machinery industry, to determine the scope of the information to be included
- consider whether this obligation should be implemented through an extension of the Motor Vehicle Scheme or through a separate scheme.

The scheme should be evaluated after it has been in operation for three years, to assess its effectiveness and determine whether any changes are required, including extending the scheme to cover spare parts.