

# asurion

## Hitting refresh

Tackling the UK's growing  
e-waste challenge

JUNE 2023



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# Report summary

- The UK generates the second-highest amount of e-waste per person in the world.
- Part of the problem is that, instead of repairing broken devices, consumers simply replace them, and hold on to unused devices rather than disposing of them.
- Inconvenience for consumers is a key factor amplifying the accumulation of electronic waste.
- Any solution to prolonging device life and reducing e-waste must therefore prioritise ease for the consumer and ideally provide incentives.
- One key part of the solution is device trade-in, while a second effective route to extend device lifetime is investing in a home tech protection plan, covering multiple devices.
- Asurion's study estimates that UK consumers could be saving over £18.8 billion if the nation were to extend their device life for an additional year and remember to trade in their devices at the end of that year.
- Extending lifetime by a year also reduces the carbon footprint of manufacturing replacement devices by over 4.5 million tonnes CO<sub>2</sub>e across the nation.
- There are several factors stopping consumers from keeping devices for longer: convenience culture, the difficulties of one-off repair, a lack of awareness about recycling options, and the need to stay up to date.
- However, there are some signs of a trend reversal, with more consumers trading in and considering refurbished devices – perhaps as a consequence of the cost of living crisis.

# The UK's e-waste problem

## A nation of e-hoarders

E-waste is the fastest growing waste stream globally<sup>1</sup>, with the UK among the top contributors. In fact, the UK generates the second-highest amount of e-waste per person in the world, at 23.9 kg.<sup>2</sup> If the current trend continues, it is estimated that the UK will be producing just under 55,000 tonnes of e-waste by 2030.<sup>3</sup>

Instead of repairing broken devices, consumers simply replace them, and hold on to unused devices rather than disposing of them. One survey found that over a one-year period, only a third of UK adults recycled their unwanted electricals and just 2% mended their electricals or took them to be fixed.<sup>4</sup>

Of the top unused electrical items in UK homes, mobile phones come in easily at first place, and at a significantly higher volume than other items.<sup>5</sup> Among larger hoarded items, DVD players, TVs, radios and laptops are also high on the

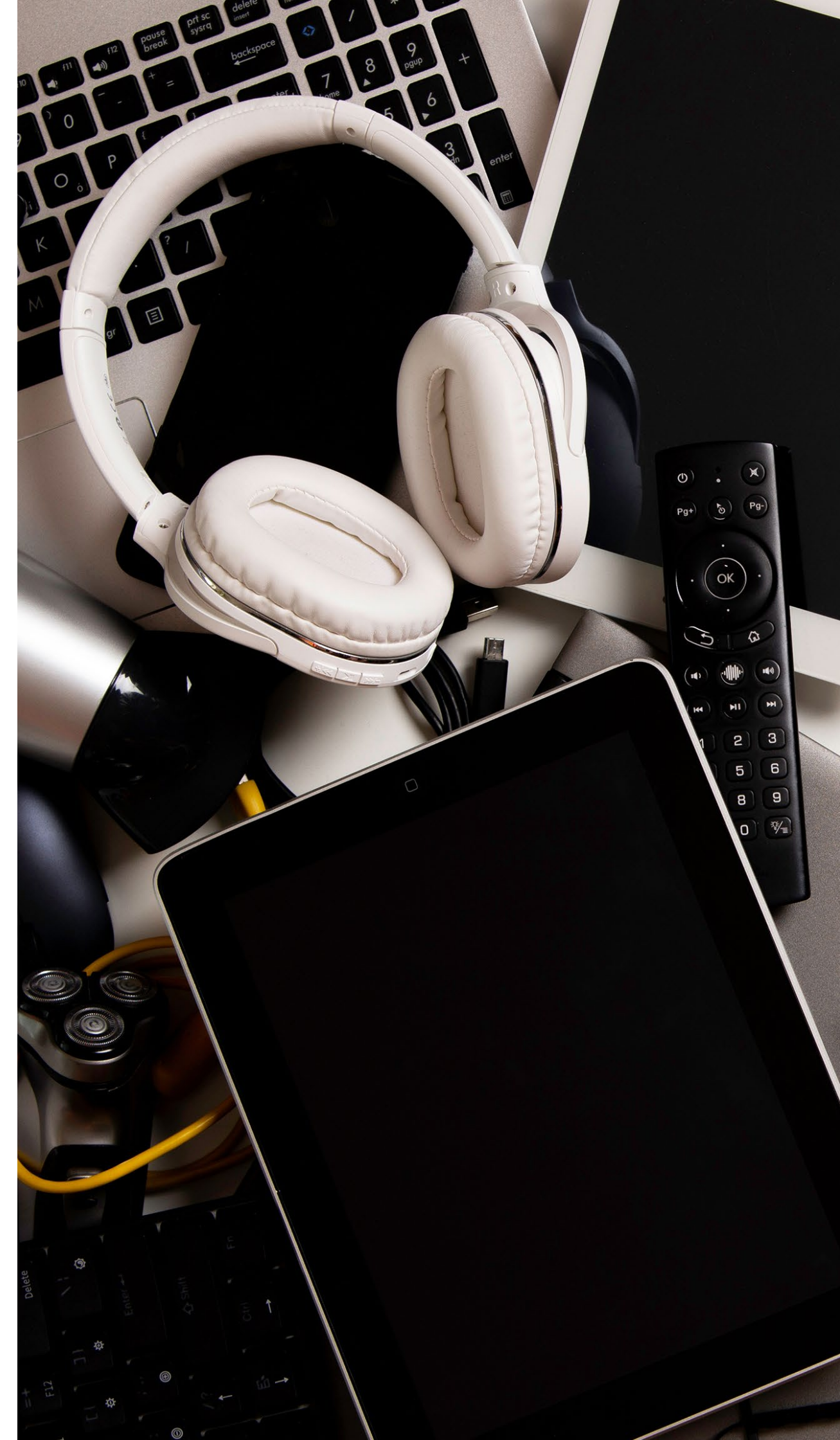
**The average UK adult will own 19 mobile phones over their lifetime – during which they'll misplace them 50 times.<sup>6</sup>**



most-hoarded list, while USB sticks, headphones and iPods are some of the smaller electronics that lay unused.

Some of these are in good working order and don't necessarily need replacing. In fact, for every three items thrown away, UK consumers buy four new ones.<sup>7</sup> In a separate survey, two-thirds of respondents (67 percent) said they have replaced a mobile phone that's still in good working order, with 44% wanting the latest software and features on their smart device.<sup>8</sup>

The fact of the matter is that we are replacing our devices long before the end of their useful, high-functioning life. Yet by investing in a maintenance plan, we could be extending the life of our devices without any loss of functionality, with help and support to update apps and other capabilities as well as maintaining or even enhancing performance speed.



# Hidden treasure

Extending the life of our electronic devices has a massive environmental impact – saving the planet from the adverse effects of current habits.<sup>9</sup> Valuable materials making up devices – such as silver, platinum, palladium and gold – are not being retrieved and reused. Worse still, heavy metals, batteries and other materials in electronic devices can contaminate groundwater near landfills.<sup>10</sup>

The Environmental Audit Committee notes that these resources are vital to our low-carbon future, our healthcare technologies and our defence systems, with some so rare that they are predicted to run out completely by the end of the century.<sup>11</sup>

# 46%

**of Brits are more likely to have a screen-damaging accident during the warmer months.<sup>12</sup>**



# Trade-in or tech exchange

The discussion in this report highlights inconvenience for consumers as a key factor amplifying the accumulation of electronic waste. Any solution to prolonging device life and reducing e-waste must prioritise ease for the consumer and ideally provide incentives.

One key part of the solution is device trade-in, which is growing in popularity among mobile users, yet still remains under-utilised by the majority. Receiving cash for unused products which still have value provides an incentive, and many retailers and recycling organisations facilitate the return by providing mailing envelopes and labelling. Where devices are no longer fit for use, these organisations can ensure they are responsibly dismantled, reused or recycled.

This is a proven method for encouraging the recycling of items in good condition.<sup>13</sup> In London, e-waste recycling collections are estimated at 90,000 tonnes per year. Around 80% of this is collected through retailer and distributor take-back and returns, while 20% or 17,000 tonnes per year is collected by local authorities.<sup>14</sup>



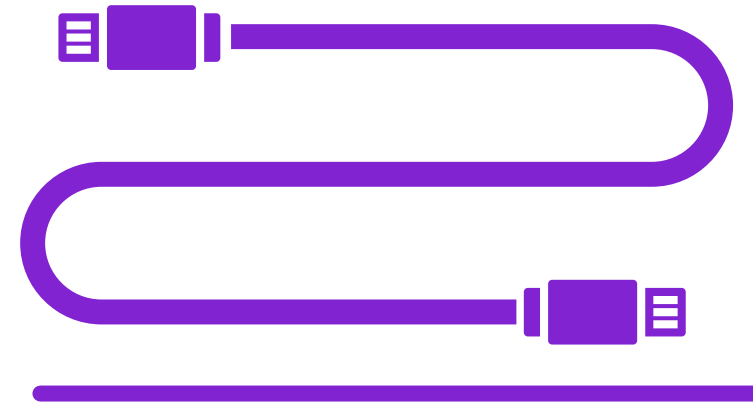


Each UK household has 20 unused electronic items hoarded at home

159,000 bikes, 12,000 playground swings and 5 million defibrillators could be created from unused laptops we hoard at home in the UK.



There are enough unused cables in UK households to go around the world five times.



Using all the washing machines, smart-phones, laptops and vacuum cleaners in Europe for just 1 year longer would save 4 million tonnes of CO<sub>2</sub> per year, equivalent to taking more than 2 million cars off the roads for a year.

## Device support and protection

A second effective route to extend device lifetime is investing in a home tech protection plan, covering multiple devices. Given that most of us own a range of connected products, this option is cost-effective in the long-term, and often includes maintenance, installation, optimisation, repair and trade-in options for each individual device.

Support plans cover devices in the home. Insurance may be added at a modest cost for smartphones to cover accidental damage repair or replacement when used outside the home.

**Source** : House of Commons Environmental Audit Committee. (2020).  
Electronic waste and the Circular Economy.  
<https://committees.parliament.uk/publications/3675/documents/35777/default/>



# Research findings

## The impact of home tech support

To gauge how much UK consumers could save with a tech protection plan covering smartphones, tablets and laptops, Asurion conducted a study which assessed both the financial and the environmental impact of device life extension through usage of a home tech package. The Asurion study calculated these estimates using highly conservative data sources on average support plan costs, mean device replacement costs and average trade-in values for old devices. Cost savings were calculated net of tech protection costs, to arrive at the typical cash savings in the average UK consumer's pocket.

The analysis concluded that the average UK consumer could be saving **over £400** by investing in support cover and extending the lifespan of their smartphone, tablet or laptop by one more year. This calculation combines savings from (a) deferment of replacement costs for one year, plus (b) trade-in cash-back for current devices.



The Asurion study also factors in official data on device ownership and current rates of tech protection and trade-in take-up.

When this figure is extended across the population, it equates to a total saving of **over £18.8 billion** if the nation were to extend their device life for an additional year and remember to trade in their devices at the end of that year. This equates to ten times the Government’s latest home energy efficiency boosting grant, or just a little less than the Chancellor’s 2023 funding announcement for carbon capture, utilisation and storage.<sup>15</sup>

Additionally, extending lifetime by a year reduces the carbon footprint of manufacturing replacement devices by an average 99 kilos CO<sub>2</sub>-e per person, which scales up to over 4.5 million tonnes CO<sub>2</sub>-e across the nation. This is equivalent to 0.9% of the country’s total greenhouse gas emissions.<sup>16</sup>

<b>REGION</b>	Financial net gain from additional year’s life of smartphone/laptop/tablet (£ million)	CO <sub>2</sub> e saved from additional year of smartphone/laptop/tablet (Tonnes CO <sub>2</sub> e)
Southeast	£ 2,619.33	624,140
London	£ 2,479.15	590,737
Northwest	£ 2,091.82	498,444
East England	£ 1,789.08	426,306
West Midlands	£ 1,678.08	399,857
Southwest	£ 1,610.05	383,646
Yorkshire and the Humber	£ 1,544.83	368,105
Scotland	£ 1,544.40	368,002
East Midlands	£ 1,375.36	327,723
Wales	£ 875.20	208,544
Northeast	£ 745.94	177,744
Northern Ireland	£ 536.76	127,901
<b>UK Total</b>	<b>£ 18,890.00</b>	<b>4,501,148</b>

# Perceptions and obstacles

So why are UK consumers failing to extend the life of their devices and failing to remember to trade them in when they do reach the eventual point of replacement?

There are several factors at play.

## 1. Convenience culture

Why are UK consumers amassing unused electronics? Research findings reveal a perception that it is easier to simply replace a device, since maintenance or repair is perceived as costly and inconvenient. A YouGov survey found that 48% of tablet, 45% of smartphone and 31% of laptop owners would buy a new device if the one they had stopped working, rather than attempt to have it repaired.<sup>17</sup>

Of those who would not repair their device, half (53%) cite cost as a reason. Others say they wouldn't repair a product that's already old (53%), or they are discouraged by the general inconvenience (27%), not having a device during the repair (16%) and the time it would take to get it fixed (12%).<sup>18</sup>

**In a survey of UK professionals, two thirds of respondents said they fear losing or being without their mobile phone. 41% of people interviewed have two phones or more to stay connected.<sup>19</sup>**



In sum, ordering a new device – despite the cost, and the time needed to research a good replacement – is often perceived as more convenient than maintenance, repair or recycling.

## 2. Obstacles to repair

When people do want to fix their phones, they face obstacles. Professional repairs – bought on a one-off basis – may be seen as too costly, pushing people to simply replace the device (as discussed on the previous page).

This issue drove the UK government to introduce right to repair regulations.<sup>20</sup> Under these regulations, manufacturers must allow consumers to make repair themselves or through a third party, by making spare parts available, and ensuring that repairs are possible with tools that are readily accessible. Of course, repairs, installations and other maintenance are much more convenient if folded into a single tech protection package.

Yet the regulations do not cover two of the most hoarded electronic items – smartphones and laptops – along with cookers, microwaves, hobs and tumble dryers.<sup>21</sup> Easier repair of these items could extend their life cycle significantly, staving off the need for replacement.



**Western-European consumers' decision to prematurely replace their products may be influenced by products' reliability, the lack of policies to enable easy and cheap repair, as well as companies' promotion and offerings.<sup>22</sup>**



Further regulatory support could also strengthen the repair industry. One UK repair firm points out there is no industry training standard for device repair, calling for an official device repair apprenticeship to be introduced. The firm introduced its own apprenticeship after struggling to find staff.<sup>23</sup>

### 3. Lack of awareness

One in five UK consumers (21%) say they are unaware of how to dispose of e-waste responsibly and almost a quarter (23%) find recycling unused electronics confusing or inconvenient.<sup>24</sup> Data security may also be a worry for some,<sup>25</sup> especially if a phone is damaged and stored data cannot be accessed.

In the UK, electronic waste is mostly collected at Household Waste Recycling Centres (HWRCs), but it is the European country with the least HWRCs per inhabitant and one of the lowest per 1000 km<sup>2</sup>. The sustainability consultancy Eunomia reports that, while the UK has at least one HWRC in most sizeable towns, these are mostly out of town and only accessible by car – contributing to carbon emissions rather than aiding their reduction.<sup>26</sup>

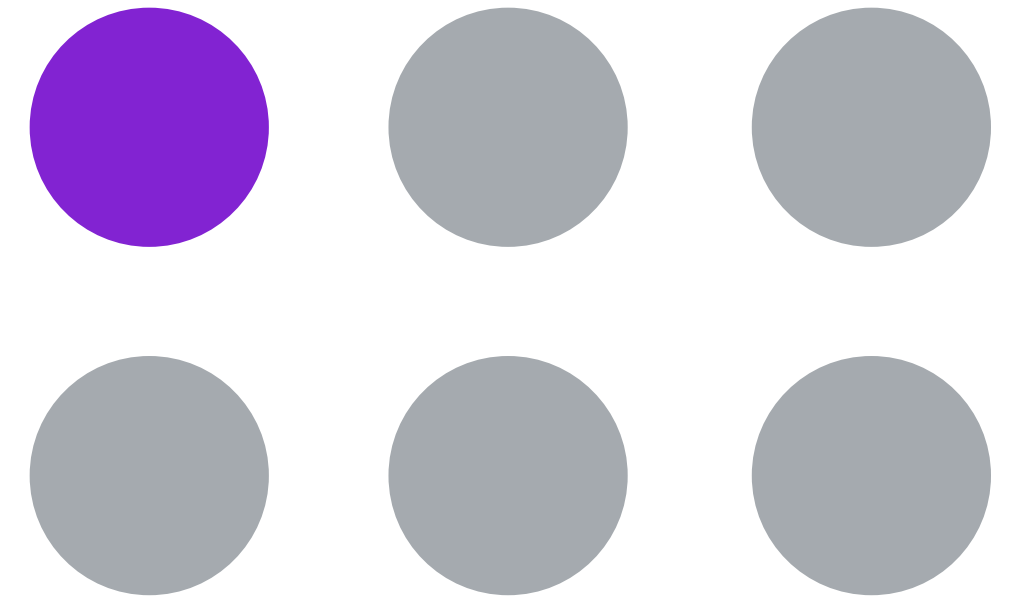


## 4. Staying up to date

With new models launched regularly, our perceptions of what 'old' means in relation to electronics differ compared to other product types. A study of Western European consumers shows that, on average, participants expected that smartphones would last 3.7 years before needing replacement.<sup>27</sup>

This aligns with the YouGov survey mentioned above, which found that seven out of ten British smartphone owners (70%) replace their phone within four years, while 28% buy a new phone every one to two years. Age is a factor in the desire to upgrade frequently, with 40% of 18- to 24-year-olds replacing their smartphone within two years; the figure drops for every subsequent age group.

Yet lifetime can be extended to five years or more with proper device care, by protecting the screen or keeping an eye on storage, for instance.<sup>28</sup> Again, the issue seems to be focused around perceptions: perceptions of difficulty in obtaining support and maintenance, and perceptions of the need to replace (or just maintain) to obtain high functionality. Yet such perceptions are not born out in fact!



**Almost one in six people aged under 35 refuse to go on a second date with somebody after seeing their cracked screen.<sup>29</sup>**



# Creating a circular culture

## Reduce, Reuse, Recycle

In the waste hierarchy, the top priority is to prevent waste in the first place ('Reduce'). When waste is created, the priority is to prepare it for reuse ('Reuse'), then to recycle it ('Recycle'), then to recover it (e.g., through energy production). It should only be disposed of – i.e., sent to landfill – when these options have been exhausted.<sup>30</sup>

However, consumers need to be empowered with more affordable and accessible options for device repair and recycling, to be able to follow this process.

### How can tech retailers and network providers support a circular economy?

- Regularly share tips on prolonging device lifetime with customers.
- Provide affordable and flexible device support and protection options.
- Facilitate and encourage device repair over replacement.
- Offer simple, incentivised solutions for device recycling.
- Work in partnership with government to develop intelligent solutions for reducing e-waste.

# A changing tide?

There are already some signs of a trend reversal. A 2021 survey of UK consumers found that nearly 34% believe they'll hang on to their current phones longer than previous models. Similarly, another study estimates that the average replacement cycle in North America and Europe now stands at 24 and 40 months respectively, which is 30% and 24% longer than in 2016.<sup>31</sup>

Higher costs of living may also further reduce the appetite for replacement and constant renewal of device models. The full impact of the economic crisis on purchasing behaviour is yet to be seen and will be nuanced. In August 2022, one network provider saw a 26% increase in people trading in items over the previous six months, and a 72% increase since the previous year. Over half of customers trading in for the first time (57%) had done so make their money go further, suggesting they may still be craving new products, but are considering more economical options.<sup>32</sup>





# Key takeaways

This short research report provides readers with compelling evidence of the financial and environmental gain to be made from the extension of device life for one extra year, along with consistent trade-in of devices at the point of replacement.

## Key actions based on this study include:

- Greater efforts from trade bodies to promote the benefits of device lifespan extension
- Wider awareness of the low cost of home tech protection
- Public education from all stakeholders about enhanced device performance when maintained and optimised through a support plan
- Governmental encouragement of longer device usage for significant environmental gain





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