



Switched on to value: Powering business change

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Introduction

In the UK, around two million tonnes of electrical and electronic equipment (EEE) is placed on the market each year. This growing consumption has a significant and growing impact:



1.53 million tonnes of waste EEE (WEEE) was generated in 2015 and this is set to increase over the next five years.



The total lifecycle impacts of the products purchased each year are equivalent to **196 million tonnes CO₂e** in greenhouse gas emissions.



The total lifecycle energy impacts of EEE purchased in the UK each year is **1.3 million terajoules**.

What could be achieved across the industry through businesses using resources more sustainably?


£4.4bn
financial benefit


1Mt
waste prevented


14Mt
CO₂e savings

The EEE supply sector faces new economic, environmental and social sustainability challenges and must meet these challenges while growing revenue, brand image and customer loyalty. Challenges include:

Economic and Demographic:

Global population growth and rapidly increasing middle class market segments will put more strain on global resources.

Societal and health:

More householders are likely to rent accommodation and use service and sharing business models. In parallel, ageing populations will place greater demands on technology for healthcare services.

Supply and critical materials:

Greater use of complex electronics, combined with better production material efficiency and plastic electronic components, will create new challenges for recyclers in recovering materials and getting enough value from them.

Although the sector faces challenges there are huge opportunities for growth, prosperity and business resilience across the whole supply chain.

The key to meeting this challenge head on is understanding the customer, their behaviour and the individual decisions they make throughout the lifecycle of the products they purchase.

WRAP has partnered with industry through the electrical and electronic equipment sustainability action plan (**esap**) to pioneer innovative business practices that promote a more circular economy.

Our rigorous research and key programmes have included:

- Producing durability guidelines for retailers of own-brand products to promote [Better Appliances](#).
- Analysing the causes and proposing solutions to minimise product returns.
- Customer behaviour research and insights.
- Work to increase the re-use and recycling of products.
- Bespoke projects on product design.
- Market intelligence on new business models and remanufacturing.

This report demonstrates the effectiveness of collaborating across industry through esap, and provides our latest research findings on the opportunities for business in using resources more sustainably.

Contents

esap - delivering a customer-centric voluntary agreement

"Our new report presents a powerful case for putting sustainability at the heart of the business model. Our evidence shows that businesses which have embraced this are more competitive, more resilient and ultimately more successful. Our electrical and electronic sustainability action plan (esap) has made good progress, but we need to go further. It is now evolving into esap 2025, which for the first time will include sustainability targets. We are urging businesses to join us and help shape a resource revolution which will create an industry fit for the future."

Marcus Gover, WRAP CEO

"Argos has worked with WRAP for over 10 years on all aspects of resource efficiency. esap membership has helped us to work collaboratively across the sector to deliver a better experience for our customers. We have tested opportunities to develop circular approaches to business. The resulting Gadget Trade-in service enables customers to make confident and informed choices about recycling their unwanted gadgets securely and safely. Looking to the future, we see resource-efficient activities as the viable mechanism for providing value to our customers, while offering Sainsbury's Argos commercial and environmental impact at scale."

Megan Kitchen, Corporate Responsibility and Environment Manager, Sainsbury's Argos

"Our vision is "Respects the Globe, Respected Globally". This requires new ways of thinking, working and collaborating. It will also require a strong focus on the development of circular business models and the way we use resources and services. We see esap 2025 as a vehicle to achieving our vision, testing new approaches to business and helping us to deliver sustainable growth. esap offers an opportunity to add value to and accelerate positive change in the electrical and electronic goods sector."

*Donald Shepherd, Marketing Director
Beko Plc (UK & IE)*

Using the circular economy to engage customers

Highlighting better value

We are proud to have been at the forefront of the circular economy movement for years, along with many of the **esap** signatories. The circular economy isn't just a sustainability initiative, it is a way of creating better value for customers that suppliers can then share.

We have worked with global brands and major retailers to develop innovative business models and create value. These business models have generated new income, improved profitability and increased re-use of products, keeping them in play for longer and reducing the need to extract virgin mineral resources.

Our surveys which cover tens of thousands of households show how householder behaviour is a major factor in the environmental and resource impacts of electrical and electronic products.

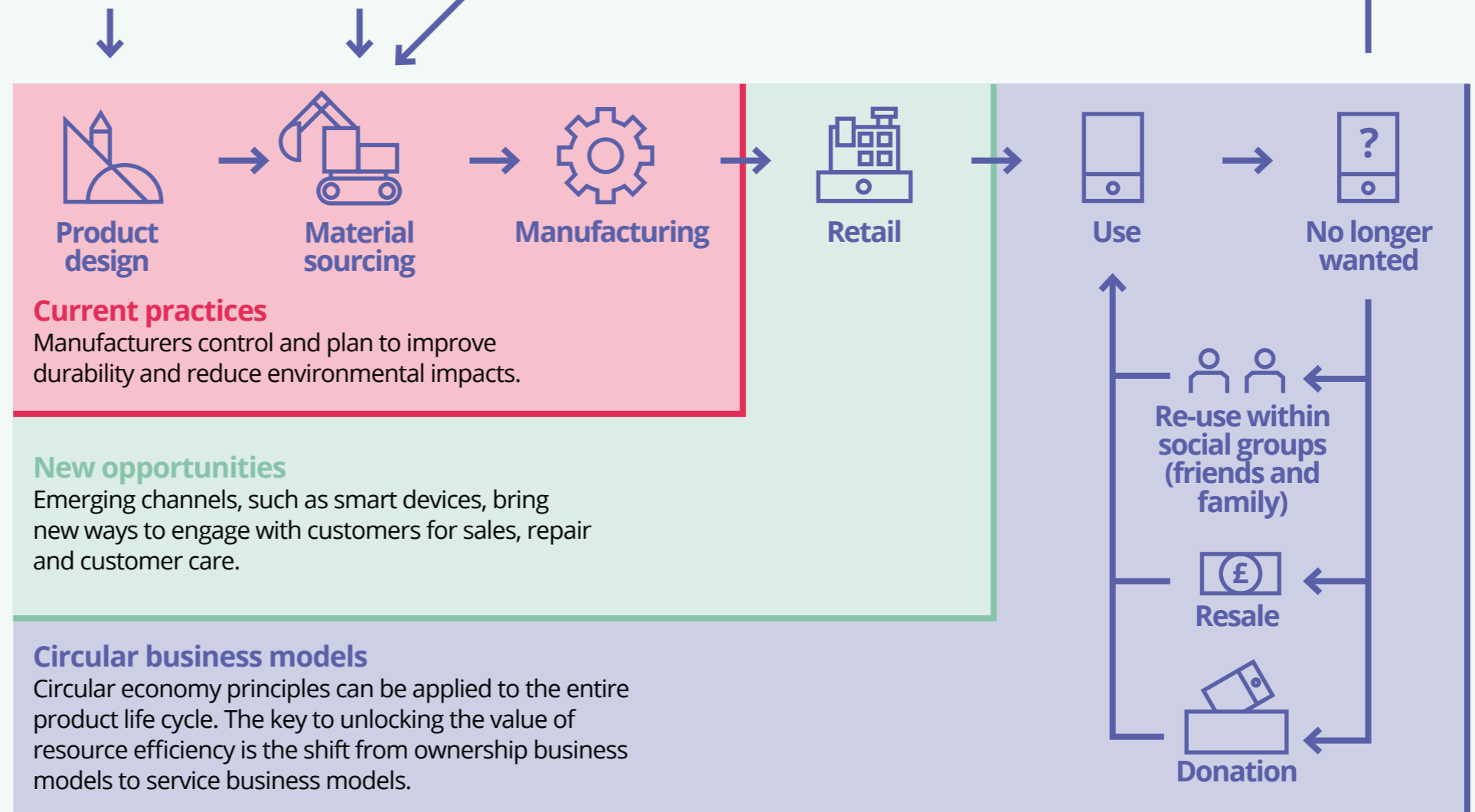
However, many householders may not realise their behaviours are at the heart of product sustainability, may not understand how to reduce this impact or be aware of the benefits of the circular economy.

Circular business models start by focusing on customer needs. Improving the customer experience along their product journey improves their relationship with suppliers and builds brand loyalty.

Applying the circular economy to electrical and electronic products

Company / buyer specification

Design and sourcing teams are essential to delivering better value products for companies.



What does the circular economy mean for customers?

Desire for a better service

Our research and delivery projects indicate that customers want a convenient experience and assurance on the quality of a product or service they receive, especially if the product has been used before.

We have proven that the circular economy has the potential to satisfy customer needs better than linear business models because it offers convenience and solves product maintenance and disposal issues for them.

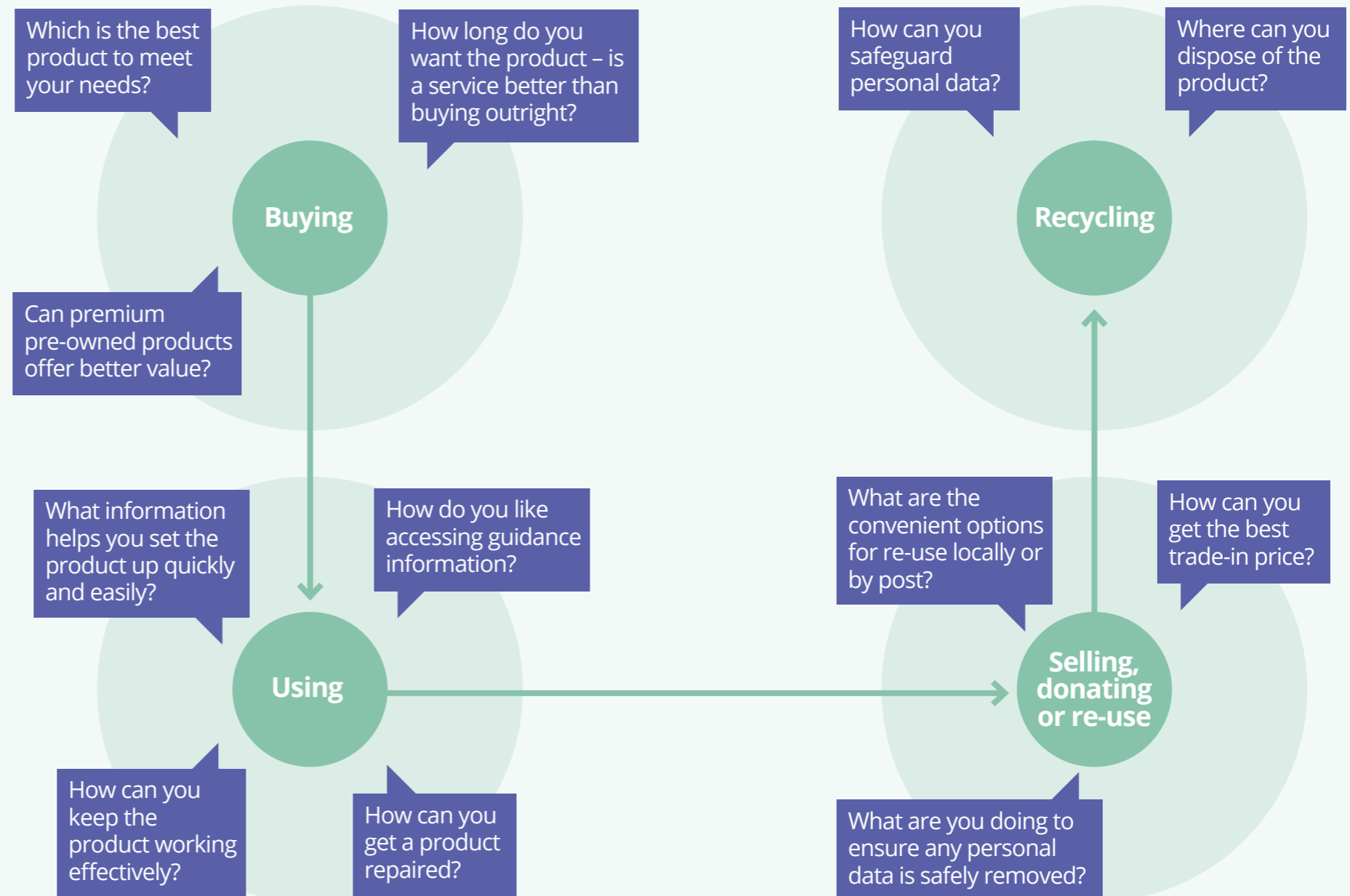
However, in promoting these benefits, the focus should be on the customer's immediate need rather than attempting to engage them in the entire lifecycle of a product. This helps create simple messages that are easy to communicate to customers.

The esap case studies have helped to showcase the benefits of the circular economy, prompting wider retail market interest in providing services, as shown on page 8.

“Product life extension is an issue that affects each individual and thus appeals to every person.”

European Commission

Questions for customers: matching sustainability decisions to the customer journey



Implementing circular business models

From theory to practice

Through **esap** collaboration, we have developed a structured but flexible process to support organisations through innovation, feasibility assessment and full business case analysis. Our process minimises risk and provides clarity in developing new business models.

Take realistic steps

Not all businesses are ready to jump to a ‘fully circular’ service immediately. There are a range of opportunities and businesses should determine which ones are within reach of their business structure and customer market. Simple opportunities, such as trade-in models, have helped **esap** members to learn and develop their capabilities and processes for product take-back, refurbishment and resale. From here, they have been able to develop further circular offers to create even more value.

Build a detailed financial model

A detailed understanding of financial performance, based on thorough research, helps to prove the financial value a new offer creates. Detailed information on investment, costs, income, payback and cash flow helped to demonstrate the greater profitability of the new business models.

Some companies were concerned that selling used products directly to their customers might reduce product sales. The financial models often showed that:

1. Selling refurbished goods created more margin than selling new products because the cost of ‘production’ was lower.
2. Companies could control used product sales, rather than letting others dominate the market for their used products.
3. Companies could attract new customer segments through selling refurbished products, appealing to a wider market.

Alignment with strategy

The business model must be clearly aligned to the company strategy. A strong link to strategy provides context for commercial colleagues and forges support across the business. Sponsorship of senior managers is essential, to ensure that a project can access resource and support in the business.

The most compelling propositions focus on customer needs and solving customer problems. Many circular economy advocates focus on material cycles and nutrients. Businesses focus on customers. This approach helped us to refresh and improve understanding of customer needs and assess the market changes taking place. The process identified new ways to offer value to customers and create a new business proposition. Solving the product disposal ‘problem’ for customers is a perfect example, especially where data eradication is a new and valuable service to offer.

Gather new market intelligence

Previous market research has often focussed on ‘business as usual’ analysis and didn’t identify new and emerging market changes, such as millennials’ use of sharing platforms (such as AirBnB and BlaBlaCar) and their lower interest in owning products outright. Our evidence and research has helped companies to challenge their assumptions and find new target markets.

Develop trusting and transparent relationships with supply partners

Setting up a new business model often led to new activities for the company, such as refurbishing products. Trusted supply partners can help deliver this process and reduce the investment risk for a company. The relationship with suppliers is likely to be long and valuable for both – so developing the right partnership is essential.



Circular economy examples inspired by esap

Proven business benefits

Through business model development projects with a range of **esap** members, we have been able to identify and deliver new commercial opportunities that are more circular than business as usual.

Argos

Argos, one of the UK's major retailers, wanted to develop a convenient offer for customers to recover value from their used smartphones when buying new ones. This was in line with Argos's goal of becoming a UK leading digital retailer. Through **esap**, Argos implemented a gadget trade-in offer available online and throughout its 700 UK retail outlets.

The WRAP team helped Argos to develop the evidence and build a commercial case for the model, refining the customer journey and the operations required to provide traceability for traded-in products.

Samsung

Samsung worked with us through esap to create a new 'Upgrade' direct leasing offer to smartphone customers, which launched in March 2016. This project aligned with Samsung's aims to develop the relationship



Argos implemented a gadget trade-in offer available online and throughout its 700 UK retail outlets

with its customers.

Samsung can now recover high-value used products and process them through its world-class service network for re-use, using genuine Samsung replacement parts where needed and ensuring data is eradicated from devices. These premium, pre-owned products can be sold to new customers, offering them good value with confidence that the product is in good

condition.

During the project, Samsung also identified further opportunities to refurbish and resell smartphones to improve financial performance and environmental benefit.

We were delighted to see Apple follow Samsung's lead and offer UK customers a similar business model in September 2016.

Premier Sustain

As part of a wider office relocation and management service, Premier Sustain wanted to add re-use of IT assets to its offer. Premier Sustain worked with WRAP to develop the customer journey, operating process and commercial business case for the new offer. Premier Sustain is now launching 'Renew IT' – a corporate IT refurbishment and re-use centre for customers.

Oxfam

Donated electronic products can create valuable income for charities. Oxfam worked with us to review its electrical product re-use offer, prioritise actions to recover more products and generate greater income. As a first step, Oxfam has refocused on its smartphone donation platform, driving improved revenue for the charity.

Further case studies are available at <http://www.rebus.eu.com/resources/case-studies/>

Delivering real circular economy change

About REBus

In 2013, we worked with esap members to lead a LIFE-funded project called 'REBus' to create resource efficient business models in the market, leading to real circular economy action. Over three years, our experts helped companies to investigate markets, identify opportunities and develop their own commercial business case for the circular economy. We partnered with a range of organisations to use **esap's** market research, provide funded expertise and create new ideas to drive change in organisations.

REBus demonstrated **esap's** ability to support genuine circular economy change in companies. It developed new markets and more profitable business models for participants. We are committed to continuing circular business model change with **esap's** members.

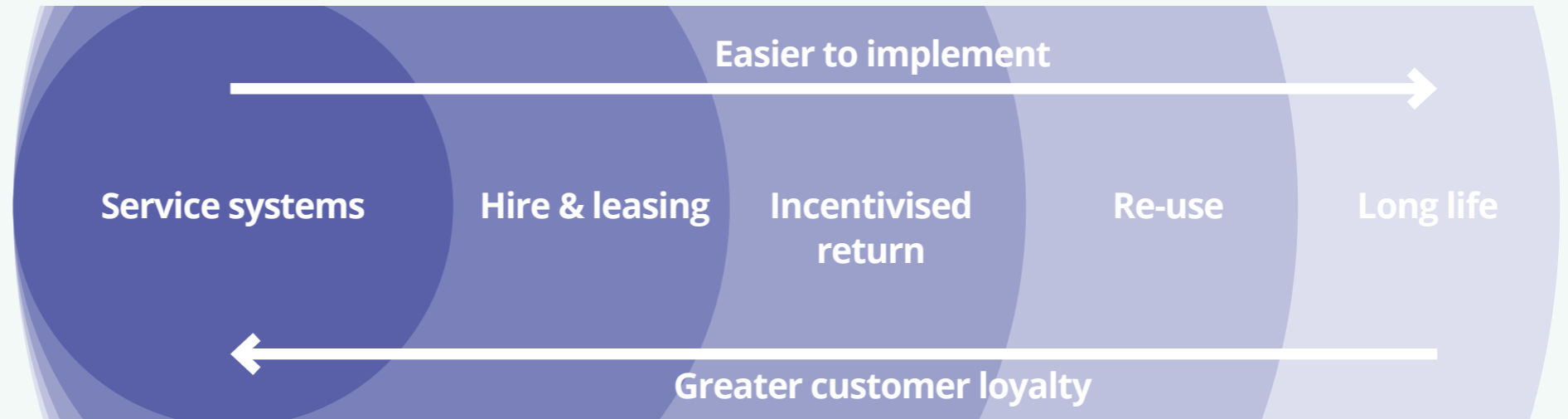
Companies that took part in REBus

Samsung, Argos, Beko, Oxfam, DHL, Panasonic, Sky, Stannah and Happus were some of the REBus participants.

Now that we have completed the REBus project, we will continue our work to deliver successful, more profitable and more resource-efficient business models with members of **esap** 2025.

Types of business model that REBus explored

Our work through REBus showed that companies need to approach circular economy activities in a measured and structured way. The process we developed has allowed us to help other companies start their circular economy journeys and understand how to become even more circular in future. REBus has delivered substantial financial and environmental benefits and learnings which can be applied to other businesses.



Benefits delivered from REBus pilot projects



Evolving customer needs and behaviours

A comprehensive analysis of customer needs

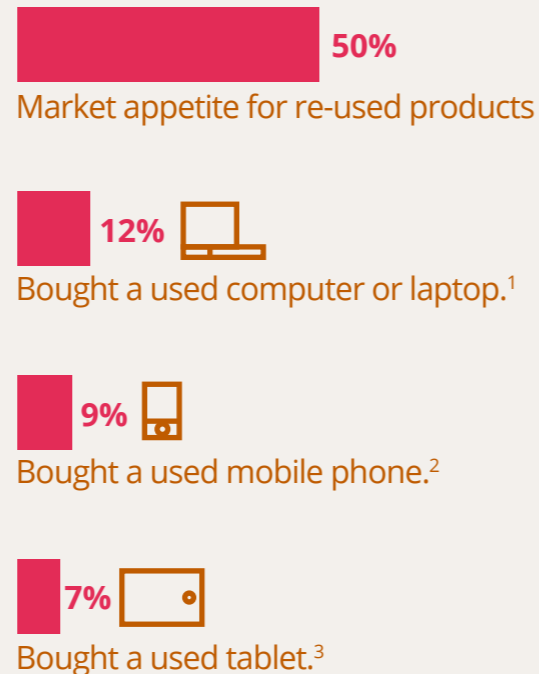
Our recent quantitative research into UK household behaviours included over 4,000 participants.

Key findings

- 50% of customers are willing to buy quality used products from major retailers.
- Only two in five customers are aware of product trade-in schemes.
- On average each customer purchased 4.5 electrical or electronic items in the last 12 months.
- Over 60% of customers have items at home they no longer use.
- Customers under the age of 34 are most likely to buy a used product.

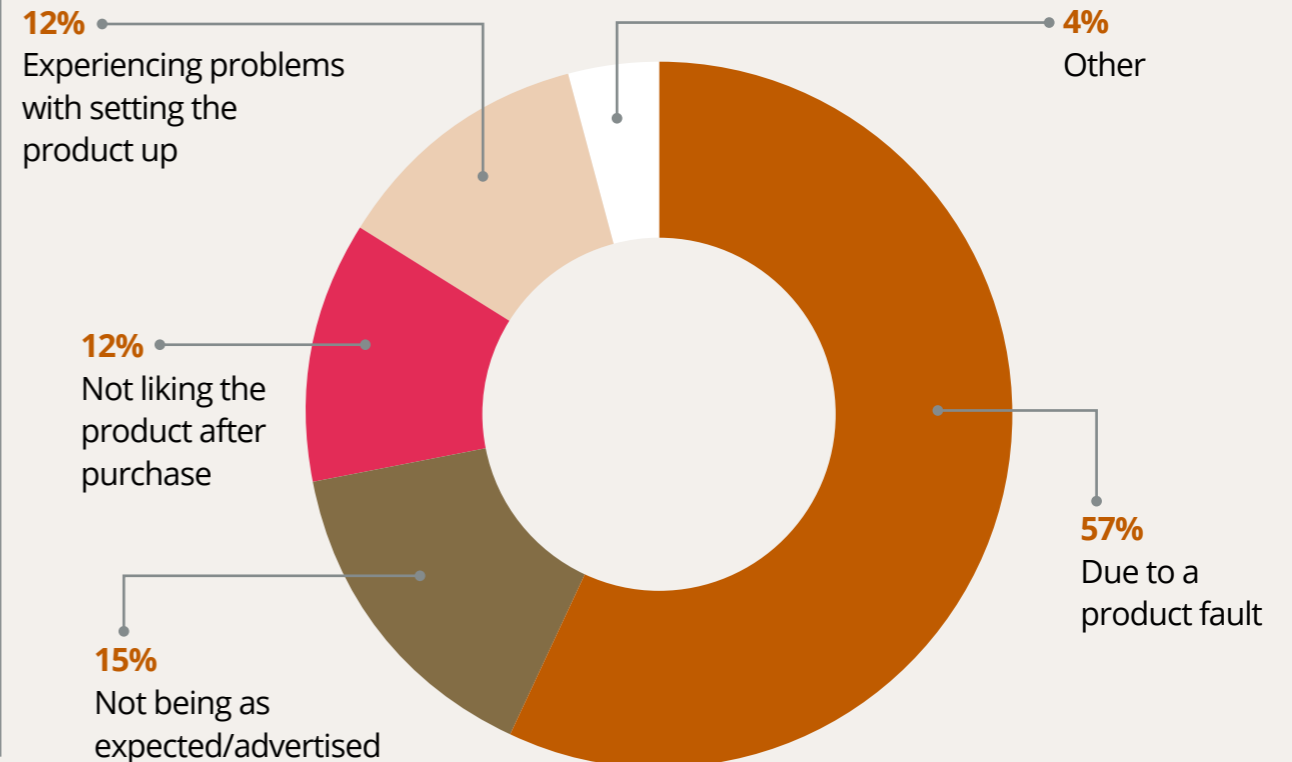
Current behaviour on purchasing used products

If 50% of consumers are willing to buy used products, how large is the untapped market for selling used products?



Why customers say they return a product

Product returns cost more than most businesses realise. The stated reasons for return in the initial return period according to customers' are:⁴



Sample size: ¹956. ²1,278. ³969.

⁴Survey sample size of customers who returned a product within the initial returns period n=333 out of 4,080 households

New business with emerging customer segments



Changing populations and demographics

We're seeing unprecedented changes in the size and mix of the population, with rapid growth predicted in developing countries. The UN expects global population to reach 8.5 billion by 2030 and 9.7 billion by 2050.

While these emerging markets are good for conventional sales growth, the increasing consumption of products will greatly add to environmental pressures and put further strain on resource supply chains.

In the UK, new trends are emerging among millennials, including a higher tendency to rent accommodation, greater interest in trading products in and buying used goods, and a greater tendency to discard WEEE into general waste bins rather than recycling it. This will increase the resource recovery challenge.



Changing demands for health and social care

The UN also forecasts significant ageing of the population, with the number of people over 60 set to double by 2050. Over-60s will make up more than a third of the European population in 2050.

Technology has a huge role to play in monitoring health, encouraging healthy behaviours through diet and exercise, developing tailored treatment plans, and providing communication to support sustainable social care services.

Each of these markets can create new value for service business models to access, but they also risk creating demand for more smart devices and products to provide those services. Collecting, re-using and recycling these devices will pose new challenges for data eradication and WEEE treatment organisations.



Growing landscape for service models

While the average age of the population increases, younger generations will be more likely to rent and less likely to buy.

PwC estimates that by 2025 only 26% of 20- to 39-year-olds will be on the housing ladder but more than twice this proportion will live in rented accommodation.

This 'Generation Rent' is naturally more familiar with service models and subscription services, already using Netflix and Spotify for entertainment, ZipCar and BlaBlaCar for transport and AirBnB and SpareRoom for accommodation.

Subscription services offer customers access to wider choice and allows them to pay for what they use.

Reinventing the business model

Customers buying appliances are interested in better information on durability and longer product warranties.

Over 80% of customers want independent reliability information and they consistently express an interest in paying more for a more durable product. Net appetite for customers willing to 'trade up' to a model with a longer guarantee is strongest for low-durability products and weakest for high-durability products.

Longer guarantees

Our research identified that adding longer warranties to mid-range appliances attracted customers to choose better quality and more expensive product options. However, adding longer guarantees to premium products does not influence customers to trade up.

Market appetite for service models











We tested market appetite for using appliances on contracts rather than outright purchase (like mobile phone contracts). We presented a theoretical bundle of appliances on two-year contracts with a clear monthly fee to compare with purchase prices [see table].

Out of 4,000 householders, 40% of respondents were 'very' or 'fairly' interested in the offer. Appetite was strongest among younger householders and high price-point purchasers.

We believe the time is right for offering appliance contract/service models to the market – suppliers can then get further value by redeploying used products into further service contracts or by selling them.

Our previous research shows half of consumers are prepared to buy quality used items from brands and retailers.

Comparison of purchase price versus service contract price

Item	Normal retail price	Premium club (24 month contract, including hotline and call out service)
 Washing machine	£449	£15 £360 over 24 months
 Fridge freezer	£899	£30 £720 over 24 months
 Oven	£599	£20 £480 over 24 months
Bundled items		
 Washing machine  Fridge freezer	£1,348	£40 £960 over 24 months
 Fridge freezer  Oven	£1,498	£45 £1,080 over 24 months
 Washing machine  Fridge freezer  Oven	£1,947	£55 £1,320 over 24 months

“We think that there is a bundle which says for a monthly fee you will have the kit, the content, the connectivity, everything you need to make your life better and we’ll look after everything.”

*Sebastian James, CEO Dixons Carphone.
BBC Radio 4 Today Programme, 14 December 2016*

Privacy and protection of customer data

Building customer trust

Our research identified that two thirds of customers are concerned about personal data on devices they've used, such as smartphones and computers. Over half of those customers would be discouraged from disposing of data-bearing items. A further 15% of customers have not considered personal data issues before.

Customers use a variety of techniques to protect data on devices they no longer use but don't appear to understand which options are effective. Concerns around personal data have discouraged 35% of households from disposing of a product.

Take-back, trade-in and service business models can provide customers with reassurance that data will be protected and eradicated from their devices by professionals.



Keeping customer data safe

Measures to safeguard customer data are vital. There are significant penalties for data controllers and processors who breach Article 32 of the European General Data Protection Regulations.

Previous data eradication studies have identified weaknesses in some products. We believe good eco-design is about more than just the physical product: it has to include the data management and protection system on a product to ensure customers are comfortable that data is eradicated when products are passed on for re-use or recycling.

esap brands and retailers can play a role in educating customers about the need for data protection and how best to achieve it – this fits perfectly with better customer service models that a circular economy approach encourages.

“Good eco-design is about more than just the physical product. It needs to consider clear user guidance, as well as data security for re-use and recycling.”

Greg Lucas, Technical Specialist, WRAP

Household consumption patterns are growing and changing

Household demand is increasing

We predict sales of electrical products will increase by 19% between 2015 and 2020. With UK households already purchasing four products for every three discarded, the accumulation of the total number of electrical products present in the UK economy is growing.

Several drivers are contributing to the growth in consumption:

Technological evolution

Connected and smart TVs and appliances incorporate new technologies and capabilities, prompting demand.

Upgrade by replacement

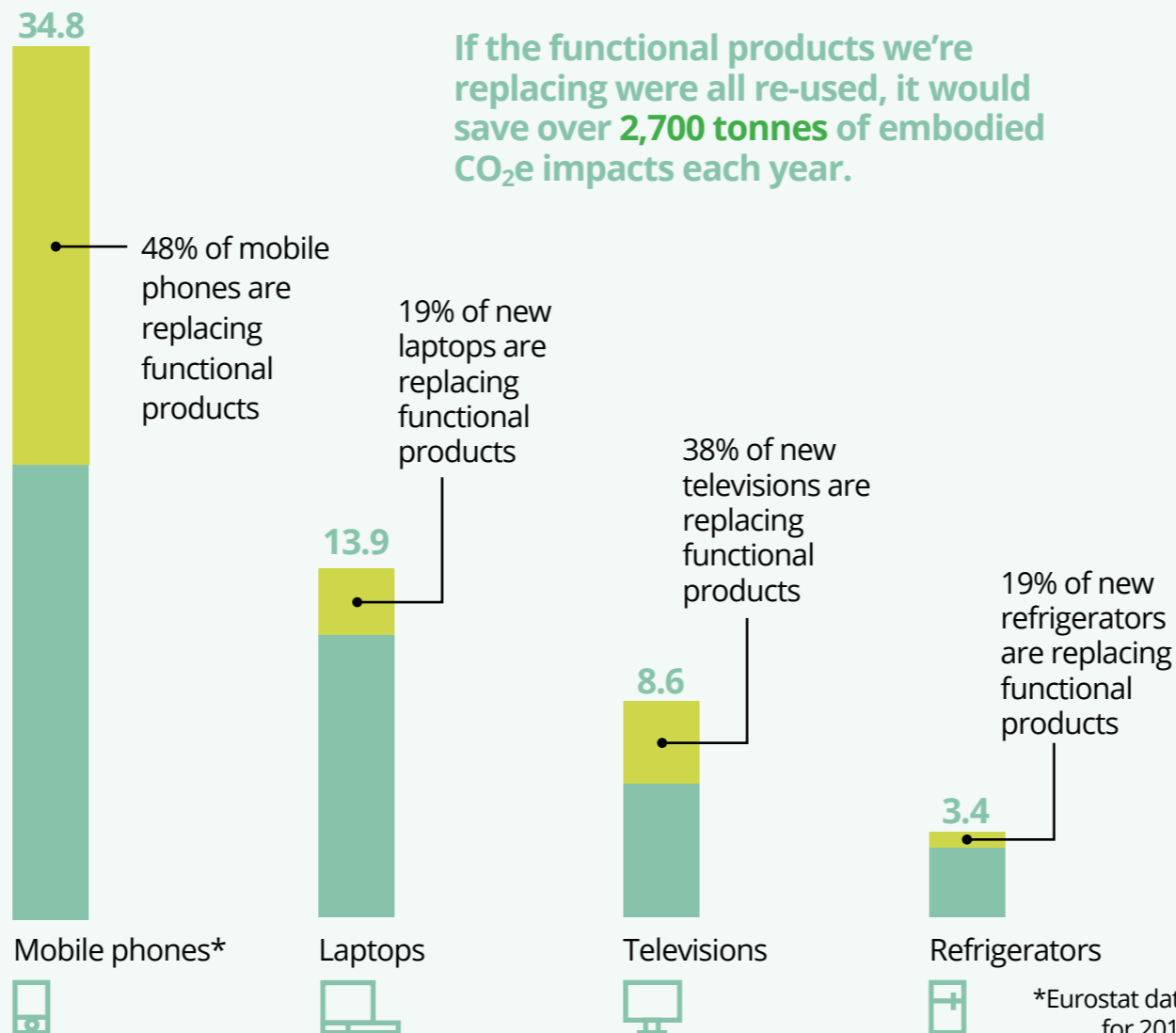
The development of new product features and performance in mobile phones and televisions, combined with frequent update schedules, lead to almost half of these product purchases being upgrades rather than replacements.

Durability

Workhorse products, such as refrigerators and washing machines, are typically only replaced when there is a fault.

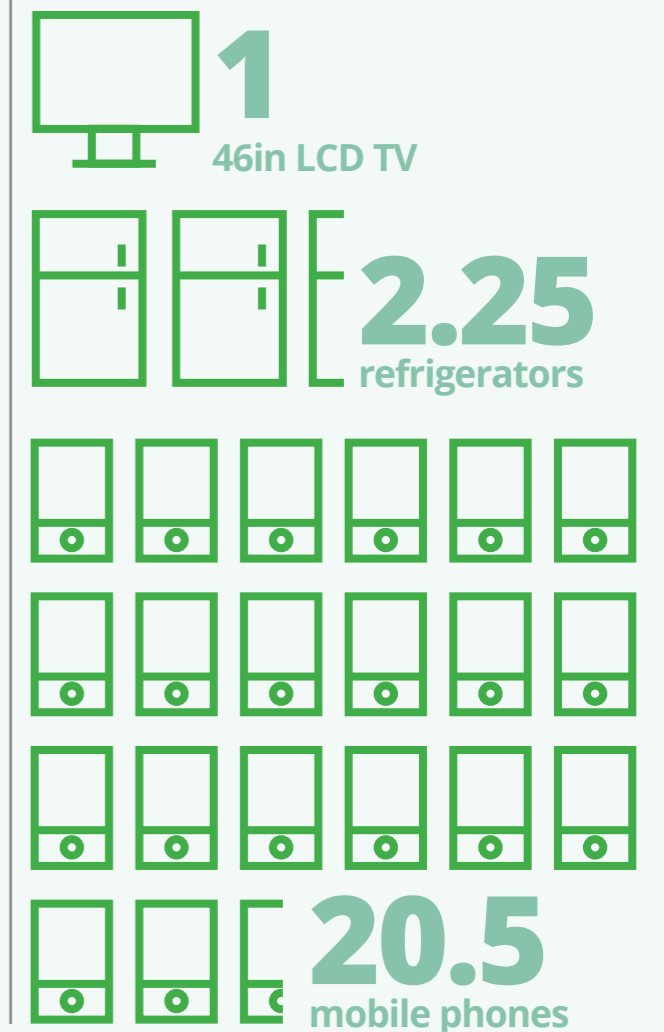
UK purchasing and impact of electrical products (2014)

Items purchased in UK, million units
Source: Eurostat data for 2014



Embodied Carbon Footprint

The size of the product is not necessarily correlated to the carbon impact of its production. For example, to have the same embodied impact of **920kg CO₂e** would require:



Return to vendor?

Understanding returns

Our customer research shows that 19% of shoppers returned electrical products in the last 12 months. Although 57% of households say that they return products due to a fault, our research with retailers indicates much lower product fault rates.

We found that those most likely to return products are:

Younger people – who report returning products at more than double the rate of older customers;

Early adopters – who are three times more likely to return an item than regular 'late majority' customers; and

Higher price-point buyers – who returned twice as many products as those buying lower-priced items.



Supporting retailers to reduce product returns

In partnership with **esap** members, we are leading new, ground-breaking work on reducing product returns. Often seen as the 'cost of doing business', product returns can be managed to reduce waste, improve cost recovery and minimise environmental impact.

Our work with **esap** members has identified typical product return rates in the range 5-10%. With the UK electrical and electronics retail sector worth over £30 billion, that amounts to £1.5 to £3 billion worth of products being received by retailers.

We are helping brands and retailers to better manage returns and reduce the cost of refurbishing and reselling those products through circular business models and online outlet channels.

“Reducing the occurrences of product damage and returns represents a massive cost saving and environmental gain for industry. We aim to deliver a ‘buy it once’ behaviour for customers in turn providing them a wholly positive buying experience.”

Steve Creed, Director of Business Programmes, WRAP

Reducing 'no fault found' product returns

Focus on the experience

As shown on page 10, 39% of customers report that they return products because they don't meet expectations, they experience problems with product set-up or decide after purchase that they don't like the product. Customers report a higher occurrence of faulty products than reported in **esap** member data.

Based on a returns value of £1.5 billion, we estimate that products worth £0.5 billion to £1 billion in total are returned each year with no fault. This consumes retail staff time, logistics capacity and increases the cost of business – which is eventually passed on to customers.

Our work on helping **esap** members to specify better product design and components shows that better user guidance is a key factor in preventing return of non-fault goods.

Simple changes can make guidance and product set-up more accessible:



'Quick start' guides and video tutorials help users get the product working on simple settings.



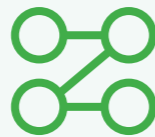
Diagrams and text should be large and clear. Use symbols where possible.



Use consistent terminology in manuals for products and connectors.



Be specific about connecting equipment and networks before setting up products.



Simplify menu structures and explain performance settings in simple terms.



Explain simple maintenance steps, such as cleaning and replacing filters.



Consider peel-off labels to highlight design features and maintenance panels.



Provide clear customer service contact information, including helplines and websites.

WRAP estimates products worth £0.5 billion to £1 billion are returned each year with no fault.

Extending product life through re-use

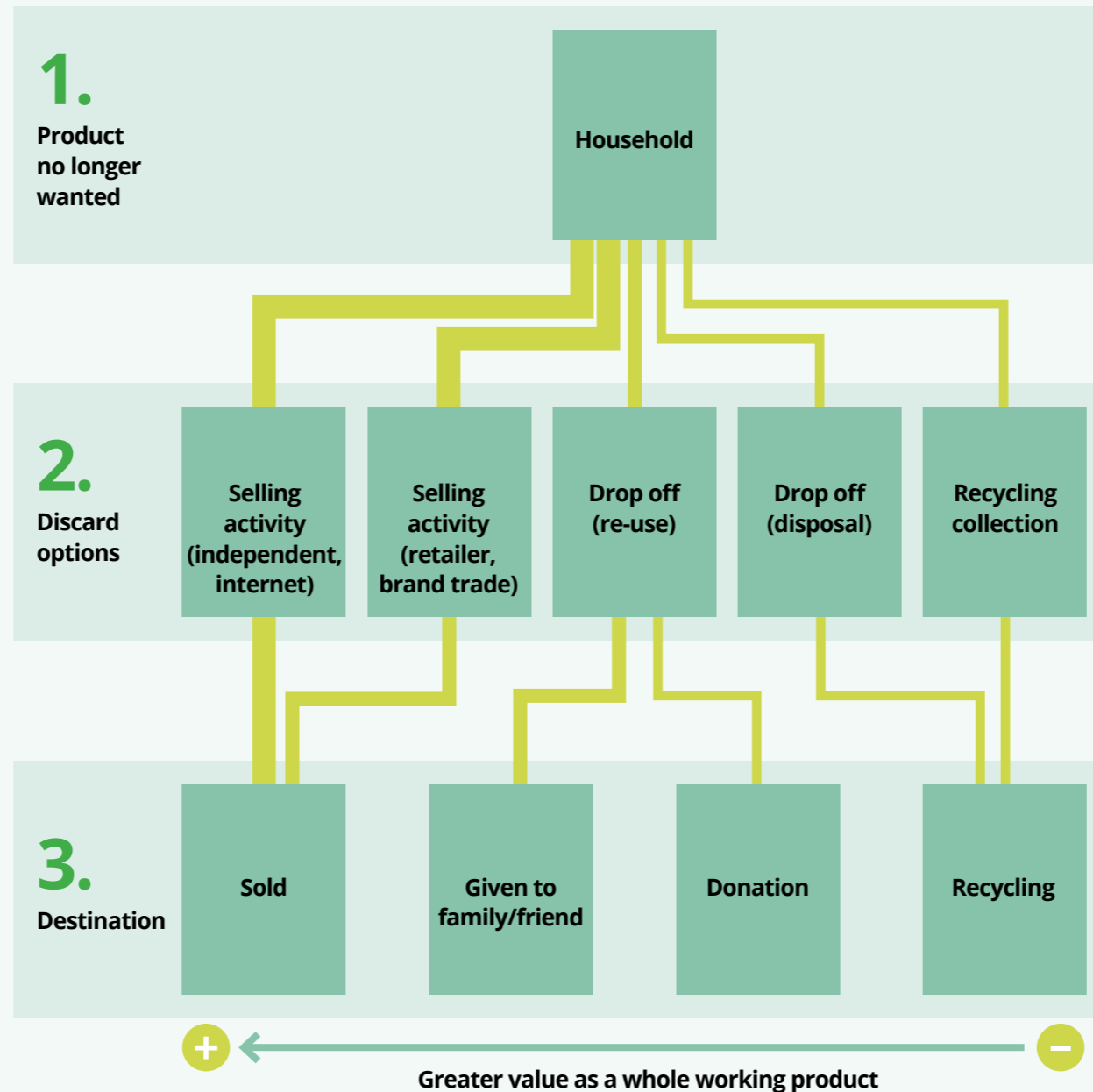
Embracing new business opportunities

Our research indicates over 90% of electrical products sold are brand new, despite more than half of UK households owning at least one unused product. Barriers towards second-hand purchase range from a desire to 'buy new' to concerns around data privacy or the quality of buying a product that has already been used.

Our research found one way to encourage re-use is through enhanced business models that promote product take-back through incentives or financial arrangements. Based on WRAP's customer survey research, 83% of households are very or fairly interested in these types of arrangements.

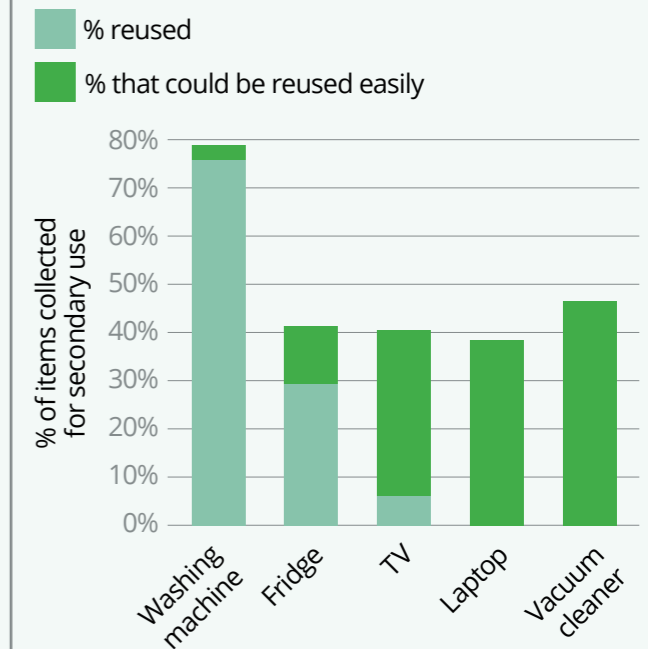
29% of product re-use comes from giving to friends and family

Getting the best value after first use



Few products are re-used after they are discarded

We conducted a visual inspection of products at recycling collection sites and found that many products likely to be suitable for re-use were, in fact, being recycled. Only washing machines were being reused to their full potential.



We recognise good visual condition doesn't always mean an item's immediately fit for re-use. However, these data support our previous research which showed 23% of items taken to recycling collection sites could be resold immediately or viably repaired then resold.

Durability and obsolescence: real data emerging through esap

Comparing the data

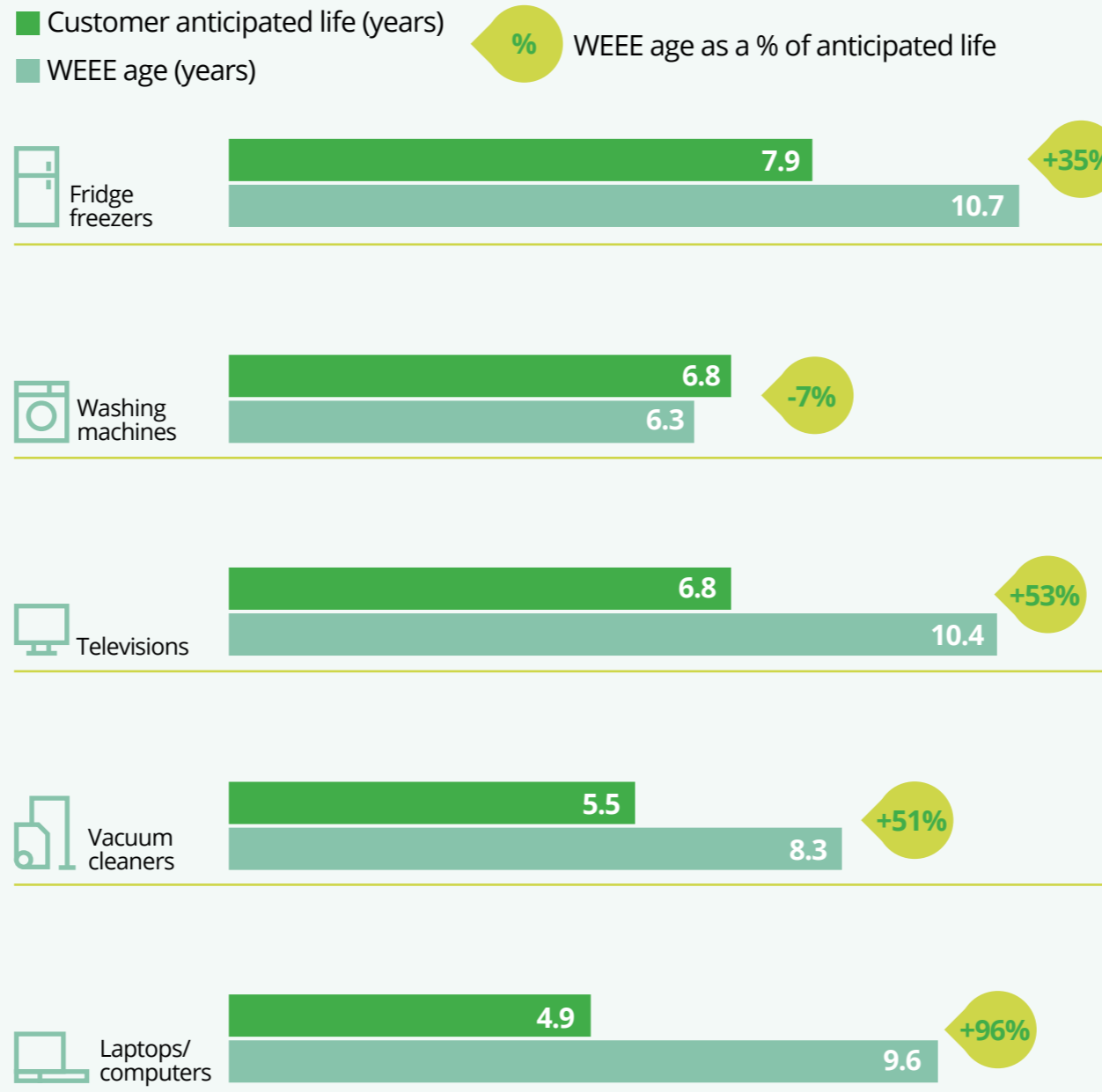
We have generated a good understanding of consumers' product durability expectations. Separately, we have also assessed the age of discarded products at waste collection centres. These data provide esap members and policymakers with valuable evidence when assessing durability and obsolescence.

TVs, laptop computers, refrigeration products and vacuum cleaners collected at trial waste sites were, on average, significantly older than consumers might expect – lasting 35-96% longer than their expected life.

However, washing machines on average do not meet consumers' expectation of 6.8 years and the average age of discarded appliances was below this.

Our study found it more challenging to put an age to own-brand products than to original equipment manufacturer (OEM) products. The data we captured indicate lower ages for own-brand goods than for OEM products.

Customers expected product life compared with actual WEEE age



Proportion of products in these five categories where we could estimate age reliably:

Around 4 in 5 OEM products

Around 1 in 5 own-brand products

We will continue to work with specifiers of products to improve durability, especially on washing machines where products appear to fall short of customer expectations. We will also continue to work with own-brand retailers, where the data suggest durability is an even greater challenge.

Moving into smarter homes

Adding connectivity to existing products

We estimate by 2022 a typical household will use 50 smart devices. The latest innovations are focused both on delivering new products and enhancing those that have been used for decades by adding new connectivity and functionality. These technologies are becoming cheaper to produce and are more accessible than ever before.

Realising the potential of 'smart homes' will have several impacts on our material use up and down supply chains:

Expanding electrical footprints

Electronics and lighting integrated into traditionally non-technical products including clothing, wearable devices and new product categories such as drones.

Supporting consumers

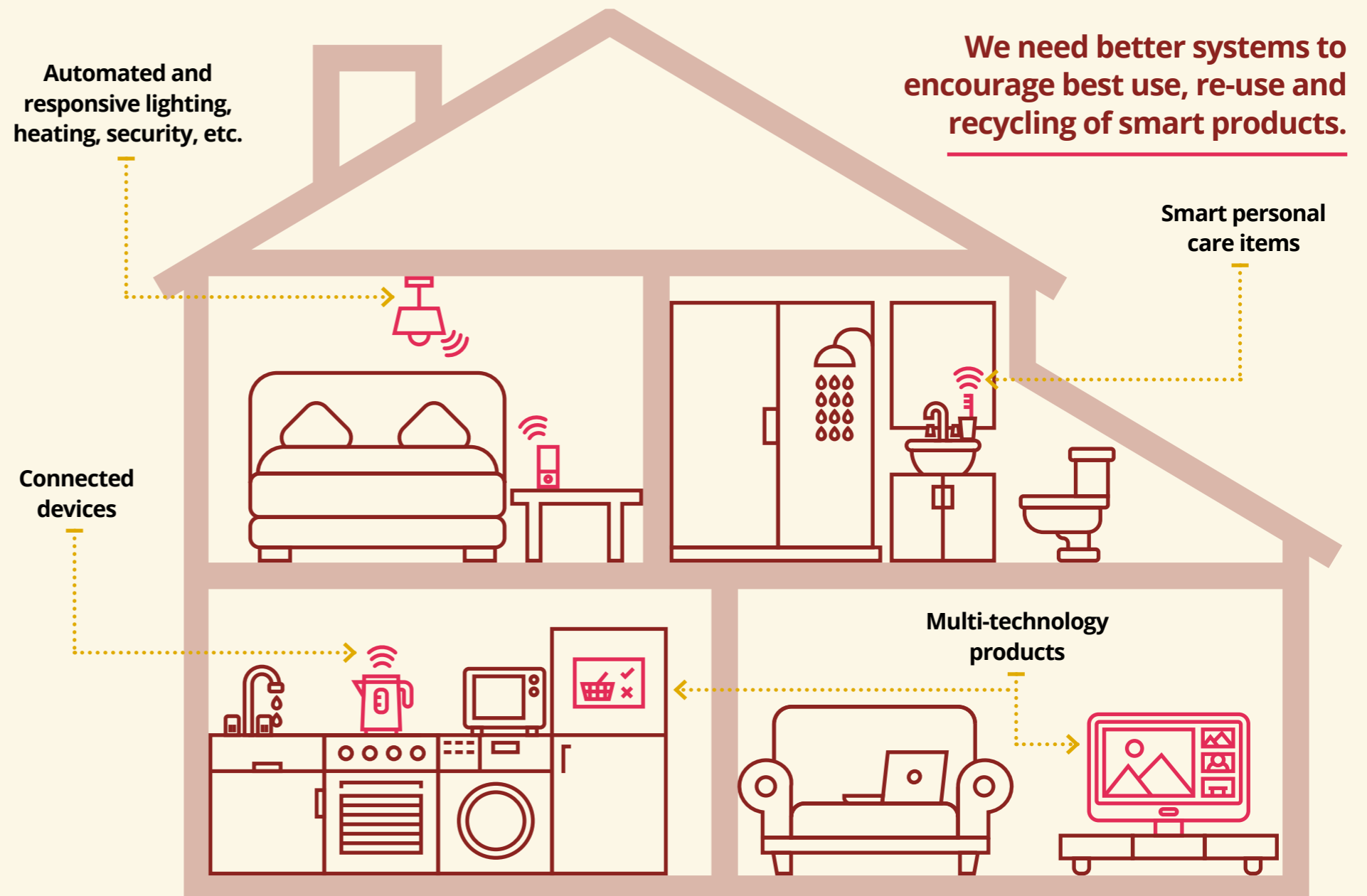
Ease of use and guidance will be essential to ensuring products perform as intended.

New recycling streams

Integrated products with multiple technologies will require better handling to protect data and maximise recovery and re-use.

We believe customers need more help to eradicate data from devices so they can re-use them to their full potential.

Connected technology will increase demand for data eradication services



New product trends present bigger recycling challenges

Preparing for integration

Our research shows that two trends will present new challenges for recyclers:

Trend 1: More products being purchased.

There is a general trend for some products to become smaller, lighter and contain fewer precious and critical raw materials. All these factors are positive for resource efficiency in production but are offset by the proliferation of new products including wearables, digital assistant devices, smart home products and drones.

Trend 2: Increasing complexity.

Conversely, many larger products are becoming more complex and include batteries, electronic components and displays. Many appliances are becoming smarter and 'cordless' so must include complex electronics, such as: smart

refrigerators, vacuum cleaners, home security systems and gardening equipment.

Both product trends increase challenges for the recycling sector – effectively separating components and materials, and recovering adequate value from those streams.

This new product proliferation is difficult for recyclers to anticipate and prepare for. **esap** provides a vital forum where downstream collectors, recyclers and processors can identify and learn about changes in product mix and composition.

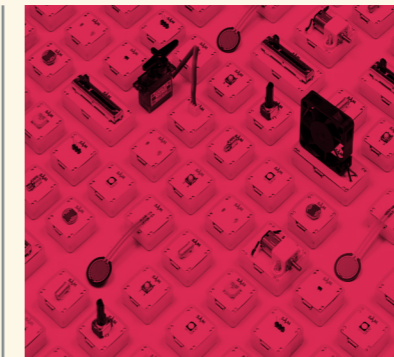
**Trend 3:
Framework for improving recyclate**
We believe the market for collecting and recycling WEEE is evolving, leading to better material quality and enabling businesses to close their material loops. This provides greater potential for using recycled materials in new electronic products.

Critical challenges to address



Innovation

Rapid growth in smart sensor products across many industries – in consumer electronics, appliances, garments, to support manufacturing processes and to enable smart buildings and cities.



Design

Greater numbers of small, less valuable products decrease the cost-effectiveness of separation and the value that recovered materials have. Greater use of internal batteries increases demands on recyclers to meet regulatory requirements.



Material recovery

Rapid growth in smart sensor products will increase the quantity of electronics being used by consumers, increasing their resource impacts further.

Fewer than 10% of UK households use household recycling schemes to discard their electrical products.

Our ambition for 2025: generating better value

Join us on the journey

The challenges presented in this report represent huge opportunities for growth, prosperity and business resilience across the EEE sector. To unlock this potential and build a platform for developing a circular economy, esap is evolving into **esap 2025**, which will:

- identify, influence and report changes in household behaviour to reduce environmental and resource impacts of EEE;
- achieve a marked % reduction in product returns and damage – as reported by signatories; and
- support the development of resilient and profitable business models, built around providing value to customers.

esap 2025: The platform for developing a circular economy

esap 2025 provides a unique customer-centric space for collaboration, innovation and action across the industry. Signatories benefit by contributing and having access to exclusive research and targeted networking opportunities while delivering effective and measurable actions that benefit their business and the environment. **esap 2025's** framework for action cuts across five themes...



Minimising returns

- Increase net contribution per product.
- Improve customer experience.
- Evolve handling practices.



Improving durability

- Best practice durability testing and specifications.
- Built-in secure-data wiping functionality.
- Maximise consumer journey.



Supply chain resilience

- Cross-organisation workshops.
- Issue/threat identification & problem solving.
- Design for end of life/use.



Increasing re-use and recycling

- Business and household communications.
- Valorisation of WEEE collections and treatment.
- Waste prevention reviews.



Resource efficient business models

- Low risk steps to access new markets.
- Keep product ownership with the business.
- Develop attractive 'leasing' models for households.
- Incentivise product take-back and trade-ins.

To find out how to get involved in esap 2025 please visit www.wrap.org.uk/sustainable-electricals/esap



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