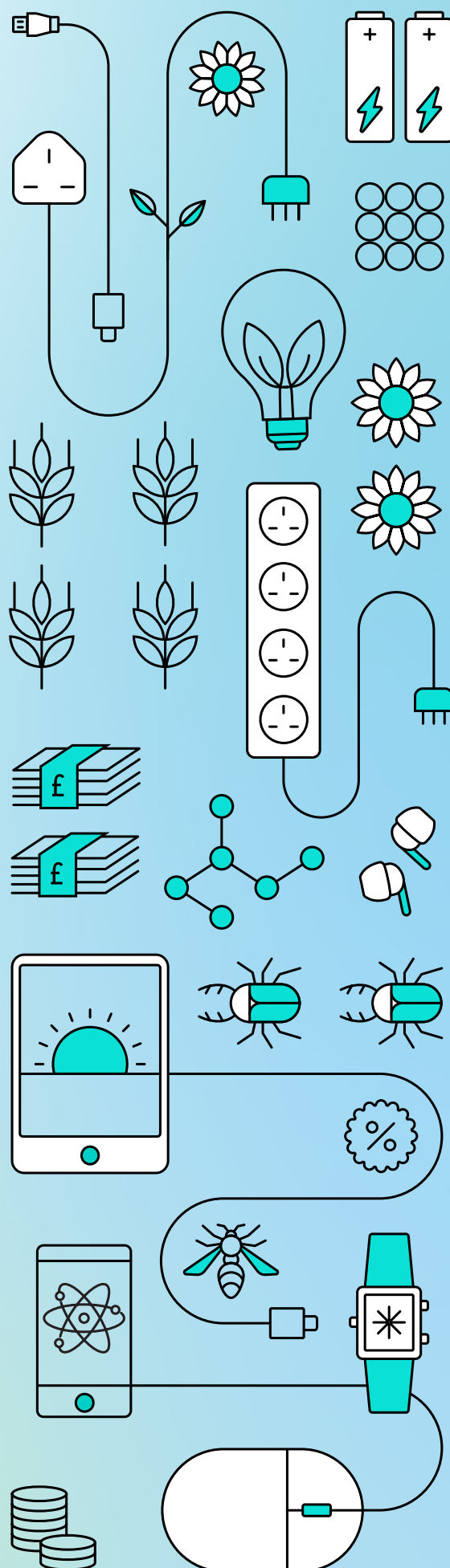


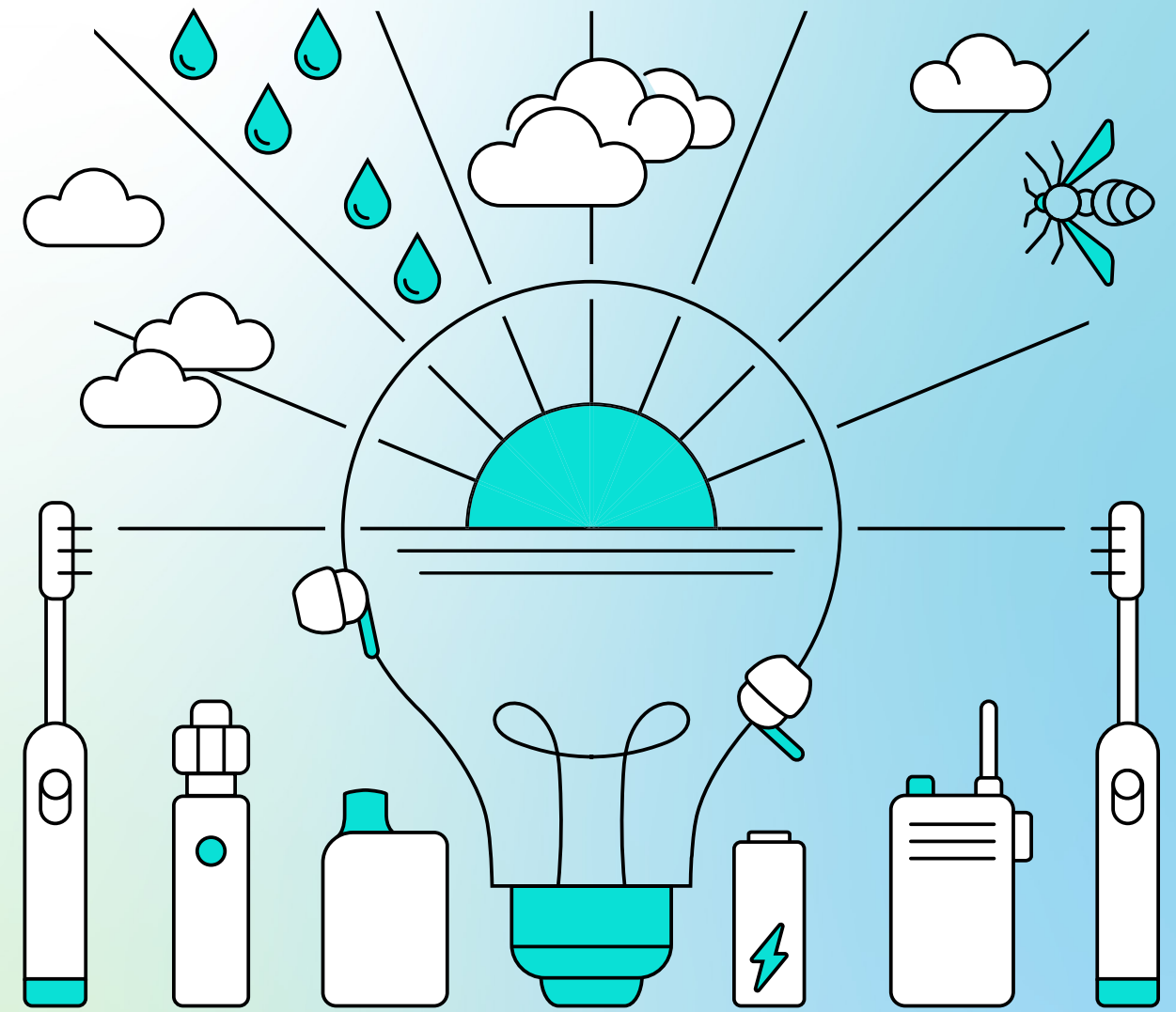


# Saving valuable materials

How we're making it easier for everyone in the UK to fix, donate, sell and recycle their electricals.

**November 2025**





## Unleashing the potential of e-waste

Tech and electricals are amazing. They keep our clothes clean and our food fresh, they keep us warm, entertained and connected. They help us learn and progress. They accompany us on holidays and help us reminisce. They give us identity and status, make us feel capable, safe and equipped for any eventuality. They make life easier, and even save lives.

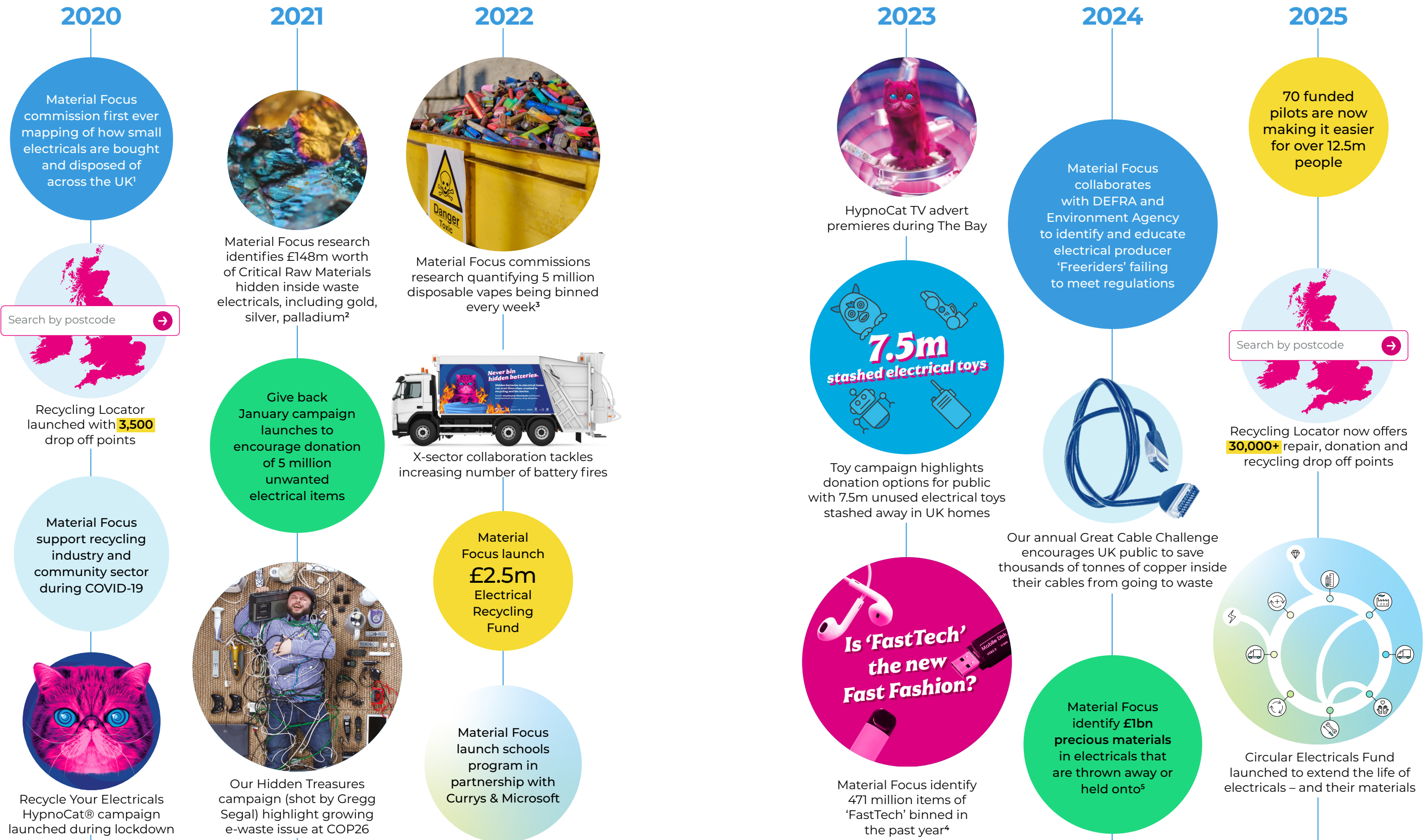
They're also **full of valuable, critical and finite materials**. Every electrical has inherent value – whether that's copper

in cables, lithium in batteries or gold in tablets. So we need to design, make, buy, use and dispose of them responsibly and respectfully.

Our vision is a world where materials are never wasted. A future where everyone recognises the value of the materials inside their everyday electricals. Where manufacturers design for a longer life, and where producers, retailers, local authorities, and the public share the responsibility of recovering these materials for reuse.

# Our highlights

Our highlights





# A circular electricals approach

Over five years ago, we set out to transform how the UK views and handles unwanted electricals. Changing a nation's habits is hard, but thanks to a huge collective effort, it now feels easier than ever to fix, donate, sell, and recycle electricals. **The result is millions more electricals – and their materials – being kept in use for longer.**

But the world of electricals has changed, and so has the waste stream. There are new challenges like e-textiles, MedTech, and FastTech, including hundreds of millions of vapes that didn't exist just five years ago. These FastTech items are causing new issues – thousands of fires a year are happening inside bin and recycling lorries and recycling centres. Producers and retailers of these types of electricals must make it easier for everyone to recycle them, if we're to stop people's lives being put at risk.

For our part, we will **continue to make it easier** to reuse and recycle all electricals – and help the sector become more sustainable **by taking a more circular approach.**

For example, through our Circular Electricals Fund we are funding innovation in material use and recovery, design and business models. This ranges from mapping the UK's 'urban mine' to groundbreaking new technologies to close the loop on e-waste. We are also leveraging AI to create a new generation of systems, from identifying optimal reuse pathways for devices and components. We are also supporting the development of infinitely repairable Braille products for use and repair by blind people.

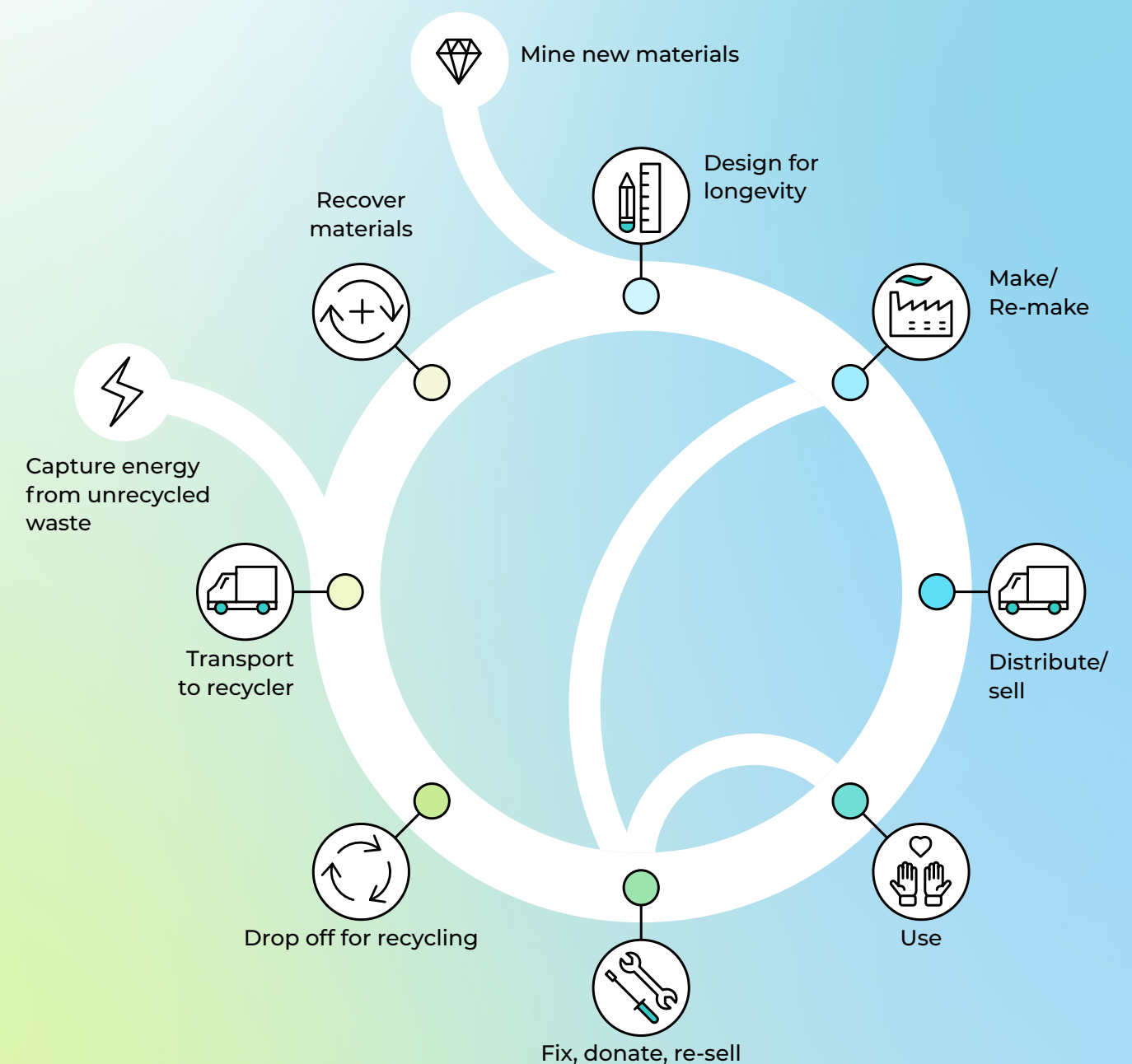
This **Circular Electricals** approach protects the environment and prevents dangerous fires, secures critical raw material supplies, supports economic growth, and creates new jobs. It is a powerful example that circularity can be a win-win-win for people, the planet, and the economy.



FastTech campaign highlighting the real cost of low-cost tech

# Circular Electricals

Keeping electricals – and their materials – in use for longer.





# Understanding the problem

## Working together

On 1 May 2019, amid growing concerns about climate change, fuelled in part by The Blue Planet, Greta Thunberg and Extinction Rebellion, the UK parliament became the first national parliament to declare a climate and ecological emergency.

Meanwhile, our insatiable appetite for new tech was being stoked by constant innovation and exciting new products. And when it came to getting rid of old electrical devices, too many consumers lacked confidence that they could be recycled – or where and how to do it.

E-waste was then, and continues to be, the UK's – and the world's – fastest-growing waste stream. While there was plenty of good work happening, recycling targets were being missed and hundreds of thousands of tonnes of electricals were being thrown away. Despite the Extended Producer Responsibility (EPR) system being in place (meaning that producers of electricals finance the collection, treatment and recycling of electricals) there was no agreed strategy to really go beyond just meeting these targets.

This was the context that led to Material Focus being given responsibility for investing the income from what was then called the WEEE Fund to increase reuse and recycling rates across the UK.

To gain consensus on our priorities before starting work, we ran a series of interviews and workshops with stakeholders across the sector. We also kicked off two major pieces of research. The first to better understand how new and waste electricals were moving through the system. And the second to establish how the UK public thought and felt about their unwanted electricals and how that affected what they decided to do with them.

Gregg Segal, Hidden Treasures photographic series, displayed at COP26



# Our findings

## Lost electricals

By mapping electrical and waste electricals (EEE and WEEE) flows across the UK, we discovered that over 155,000 tonnes of electricals were being binned annually.<sup>6</sup> Meanwhile, over 527 million electrical items – almost 20 per home – were stashed away unwanted in UK homes. And at least 446,000 tonnes were being thrown away, illegally exported or stolen.<sup>7</sup> Working with recyclers, we established that at least 75% of all the materials inside electricals could be recycled and recovered.<sup>8</sup>

## Why should we care?

Our research established that, if we were to recycle all our 'lost electricals', the UK could **save a massive one billion pounds'**

**worth of valuable materials,**<sup>9</sup> including copper, lithium, and gold. And these savings are increasing in line with constantly expanding tech production. Prices of common materials found in electricals are rising: since 2020 glass prices have risen 151%, copper 24%, iron 181% and tin 33%. By improving the recycling infrastructure and encouraging the right kind of behaviour, it was clear that valuable, critical and finite raw materials could be recovered instead of being lost forever.

And this wouldn't just stop materials from going to waste. It could also save 7.98 million tonnes of CO<sub>2</sub> – equivalent to removing 3.84 million cars from the road every year.<sup>10</sup>

Electrical waste – challenges and opportunities, 2021<sup>11</sup>

## 1.65 million tonnes bought

Electricals bought in the UK



## 0.92 million tonnes saved

Unwanted electricals sent for reuse & recycling



## 0.5 million tonnes lost

Electricals thrown away, hoarded or stolen





It needs to be easy to act

Our consumer research<sup>12</sup> showed that, whilst most people in the UK were already recycling paper and plastic on a semi-regular basis, this didn't translate through to electricals.

- Over 80% of the public thought of general recycling as a good thing, but only 46% thought it was easy to recycle electricals
- 43% admitted to binning their electricals, rather than recycling them, particularly small, cheaper items like cables, and battery-operated ones without cables like kids toys
- Electricals are more emotive than we anticipated – people have surprising, nostalgic and personal stories about even unused and broken electricals
- Almost everyone had at least a small stash of electricals hidden away in their 'drawer of doom'
- The most common barriers to disposing of electricals properly were a lack of awareness, inertia and understanding of how to act

- Barriers varied hugely by type of electrical e.g. tech was most likely to be held onto 'just in case', because it might be valuable, or because of personal data concerns. Whereas smaller electricals were more likely to be binned without considering recycling them
  - Clear preference for recycling information to come from local council, but also a desire to have this from environmental organisations, the government or retailers and manufacturer
- We also found significant regional differences in recycling knowledge, capability and action. There was huge variation between urban and rural areas, home owners and renters, those who lived in houses versus flats, and people who'd recently moved into an area versus those who had lived in their homes over 5 years. And in part influenced by these living differences, younger people were less likely to recycle their electricals, and more likely to repair, hold onto or sell them.

over **80%**  
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Our consumer research showed that **almost everyone** had at least a small stash of electricals hidden away in their 'drawer of doom'



# Our strategy

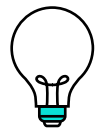
People aren't holding onto old phones, or binning broken toasters because they want to waste resources. They are doing it because they're genuinely unsure what to do next, it doesn't feel like anyone else is doing it, or because recycling feels needlessly complicated and effortful. Less than half of adults in the UK thought recycling electricals was easy.

We used Stanford University professor, BJ Fogg's behaviour change model to make some strategic choices about where to focus. Motivation is the hardest lever to shift, but the model reveals a trade-off: if we make action feel sufficiently easy and normal, people will act even when motivation is relatively low.

We needed to **transform the e-waste system**, and empower those already pro-recycling and regularly reusing and recycling other things – to reuse and recycle their electricals too. We could then use this growing group to influence their peers.

If we make action feel sufficiently easy and normal, people will act even when motivation is relatively low.

Our strategy focuses on making it easier to reuse and recycle electricals across the UK. We do this through insights, investment and inspiration.



**Insights** to understand how the UK e-waste system can be improved, to identify where to invest and to inform policy decisions.



**Investment** to make it physically easier to reuse and recycle, and encourage circular design of new electricals.



**Inspiration** to educate and encourage the UK public to fix, donate, sell and recycle their unwanted electricals.



**possiblynico** I have so many cables I need to get rid of. What a great idea!

**Olivia** Omg saw this just in time because was about to throw my airfryer on the skip

**Kelseclipse** I need to get rid of my cable doom box, this is a great way!



# Transforming the system

Our insights helped identify gaps in the e-waste system and direct the discussion around what to do about it. We, with our stakeholders, partners and the public are for the first time able to understand the scale of the challenge – and our collective role in meeting it.

**80%**  
of our pilots are  
self-sustaining,  
and continue after  
the initial funding

## Making it physically easier

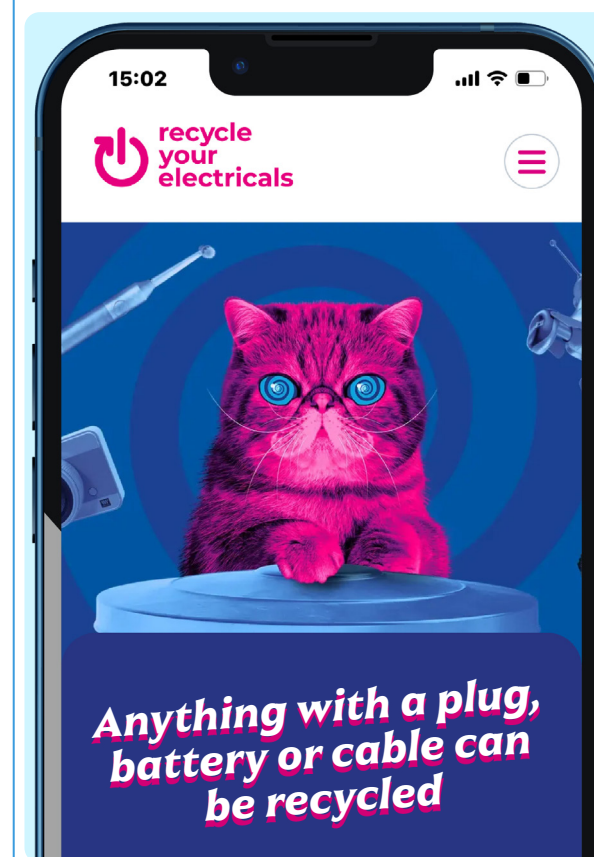
We offered funding to expand and trial new ways to fix, donate and recycle small electricals, through our Electricals Recycling Fund – including the introduction of arresting pink bring banks to remind, and facilitate 24/7 recycling options. This would start to fill the reuse and recycling services gaps we'd already identified, particularly in urban areas where people were less likely to own cars, preventing them from being able to drop off their electricals at their local Recycling Centre. And we've worked directly with local authorities to engage local residents across the UK and to reinforce the messages they were hearing nationally.



Transforming the system

## Digital tools and resources

We built a fully accessible website to make it easy for the public across the UK to understand the issue and how to act. At its heart is our best-in-class Recycling Locator, which has expanded rapidly – from 3,500 fully verified drop-off points in 2020 to over 30,000 reuse and recycling drop off points today. Our communications toolkits make it simple to spread the word – many of which are also available in Welsh, ensuring accessibility and impact across the UK. From social media templates and posters to guidance for schools and community groups, our resources support local authorities, retailers, producers and charities to get involved in electrical recycling.



## Supporting the sector during COVID-19

Our launch in March 2020 was complicated by the COVID-19 pandemic. But after a quick pivot, we got off to a flying start targeting the UK public, now stuck at home surrounded by their unwanted electricals.

Just when they were needed most, the reuse and recycling sector were hit hard by the pandemic. We provided £2 million of interest-free loans to recyclers and £500k in grants to the community sector, helping maintain their work, and supporting communities in need.





**Making it easier for producers and retailers to comply**

We launched a first-of-its-kind collaboration with DEFRA and the Environment Agency to develop our proprietary Freerider Finder methodology. This has enabled us to support all of the UK environment agencies to identify and educate non-compliant electrical producers. Our work on this in 2025 has already led to more than double the number of ‘freerider’ producers complying with the regulations compared to a normal year.

Meanwhile, thousands of retailers, producers and local authorities have downloaded our Industry briefings and communications toolkits. This has helped make it easier and more straightforward to understand and meet their environmental obligations. Many responsible retailers are going above and beyond their obligations – Currys, B&Q, John Lewis/ Waitrose and Asda all now offer a free in-store recycling service for all small electricals.



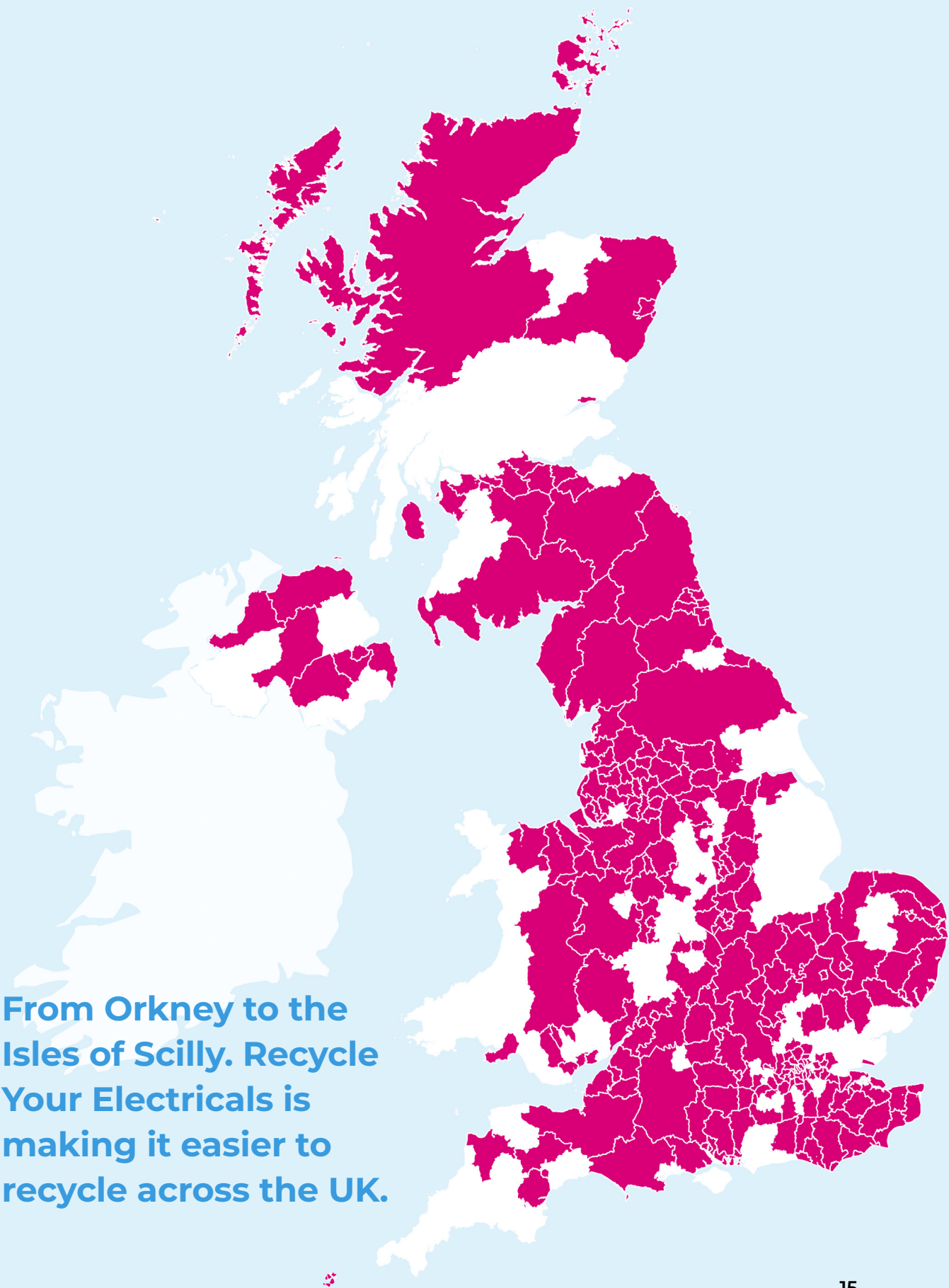
**Increasing circularity of electricals**

While we’ve made it easier to fix, donate and recycle our existing electricals, many electrical and electronic products and smart devices still aren’t designed to be easily reused or recycled. We also lack the systems to recover all the valuable materials inside them.

That’s why we launched our £1m **Circular Electricals Fund**. The Fund supports innovative pilots designed to keep electricals – and their materials – in use for longer. We attracted a stellar group of judges who lent their time and expertise to assess applications, helping to hypno-catalyse ;-) attention and progress in this space. We’re excited to see the results.

**9.2 million**  
more people say  
they’re recycling  
electricals than  
in 2020.<sup>13</sup>

Map showing Local Authorities who have supported the Recycle Your Electricals campaign





# Empowering people to reuse and recycle

## We wanted to inspire more than criticise

Research shows that negative messaging tends to overwhelm people, and cause them to stick their head in the sand to avoid feeling bad. Given the sector was already dominated by visually green brands talking about catastrophic environmental issues, we deliberately took a positive, solution-focused approach to making it easier for everyone to recycle their electricals.

## Making it feel simple and consistent

Whilst developing our messaging, we found that many people use the term 'recycle' to encompass not just recycling but also other 'circular' behaviours like fixing and donating. As a predominantly online brand, we also wanted to come to mind easily when people were searching for solutions for their unwanted electricals. And we wanted to ensure the public could easily connect up our communications with the pink signage in recycling centres, and on existing bring banks across the UK. The pink dominated **Recycle Your Electricals** campaign was a carefully considered and clear choice resulting from these insights.

Our primary communications challenge was to increase public awareness and consistently build confidence that **'anything with a plug, battery or cable'** can and should be reused or recycled rather than binned. It needed to be sufficiently disruptive to cut through and to be recalled at the key moment.

## Creating a memorable messenger

And so our brand messenger, HypnoCat® was born. Our pink fluffy, techno loving piper of electrical recycling who would hypnotise the nation into bagging up their electricals and recycling them. We created personalised communications across different regions of the UK, and for different groups and local authorities. 'Humans of Leeds' he purred, 'Humans of Facebook', 'Human Students of the UK'. To drive immediate action, we focused attention on the most commonly bought and binned electricals. And applied a test and learn model to ensure we spend our limited budgets in the most effective way. We also created campaign toolkits for local authorities with ready-made communications for them to easily roll out. And supported them on PR campaigns where they needed it.

HypnoCat is now recognised by over half the population.



Empowering people to reuse and recycle

## Driving the debate in the media, and down the pub

Our expertise and experience in e-waste and behaviour change, together with our ability to spot and simplify growing trends, has caused media interest to skyrocket. By spotlighting key electricals issues and providing hard facts, emotive images and clear ways to act, we have inspired almost all the major UK TV channels and media titles to get behind the issue, with over 11,000 media articles appearing as a result of our campaigns.

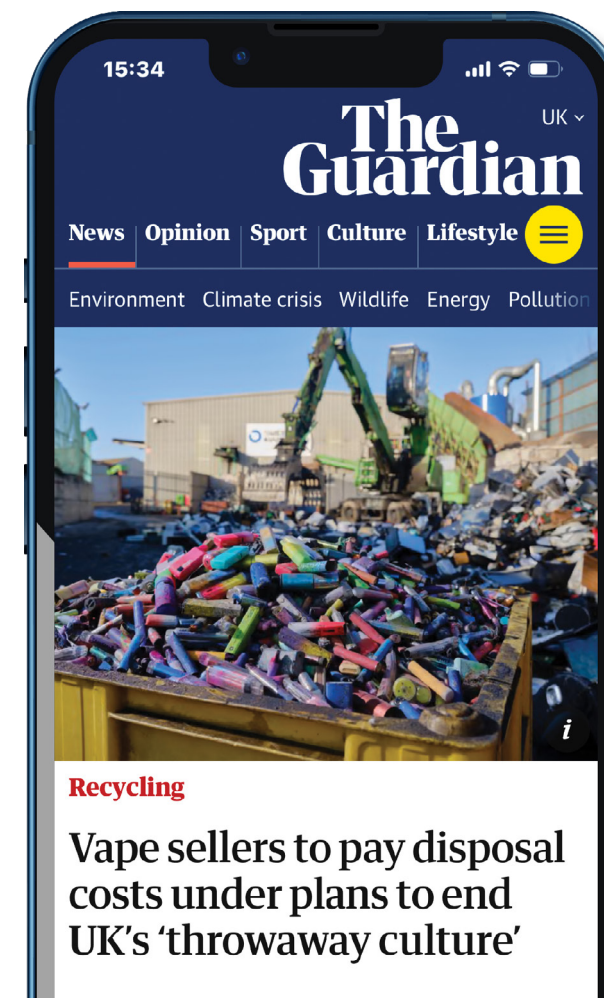
## The Drawer of Doom

We have discussed vapes, battery fires and the highly emotive Drawer of Doom on BBC Breakfast's red sofa, Channel 4 Dispatches and the One Show. We helped viewers understand what to do with their unwanted electricals on tech programmes like the Gadget Show and Shop smart, Save money. And our, now annual, Great Cable Challenge has inspired millions to tackle their drawer of doom, rescuing valuable copper from thousands of old, broken cables – and kickstarting new habits.

## The Vapocalypse

We highlighted the environmental issues surrounding disposable vapes, 8 million of which were being discarded weekly in 2025<sup>15</sup> – influencing the ban on single-use vapes in June 2025. More recently we moved our attention to the issue of FastTech, revealing the half a billion small, cheap electricals that are bought annually; 16 every second.<sup>16</sup> And we commissioned multi-coloured X-ray images that revealed the valuable materials hidden inside FastTech. Our FastTech campaign alone generated 520 pieces of media coverage, including BBC, The Guardian, Daily Mail and regional coverage and commercial radio channels, with a reach well beyond the UK.

**45%** of people who see our communications say they start recycling or recycle more electricals as a result.<sup>14</sup>





# Partnerships and awards

We value our independence but we can only succeed by working in partnership with others. We're proud to partner with organisations – and their committed staff – whose aims and aspirations align with our own electrical reuse and recycling goals.

We have joined forces with experts at National Fire Chiefs Council (NFCC), Royal Society of Chemistry (RSC), National Cyber Security Centre and Bloomberg Intelligence. And large retailers like Currys, B&Q, shopping channel QVC plus Westfield shopping centres in London.

Together we've highlighted important national issues including the valuable materials hidden inside electricals, the growing number of fires caused by loose and hidden batteries inside electricals – and how to dispose of them safely.

We've worked with over two thirds of local authorities to inspire, educate and encourage local residents. And developed a school programme to do the same for future generations. We've also been privileged enough to win some awards for our work.

Drum Awards (gold & silver) 2025

CIPR Excellence Award 2025

The Independent Agency Award 2025

Campaign Ad Net Zero Awards 2024 / 2025

UK Green Business Award 2024

Outdoor Media Award 2023



Over the summer of 2025, we worked with festival organisers including Wireless Reading, Leeds and Latitude to promote vape recycling.

## Partnerships



JOHN LEWIS  
PARTNERSHIP



Sainsbury's



FORA

BackMarket



Morrisons



SAMSUNG



musicMagpie





Currys and  
Material Focus  
partnership

Currys is a leader in this space and we've worked with them on campaigns like Cash in your electricals, the Great Cable Challenge, pilots to make it easier to donate electricals working with Sue Ryder, helping schools and universities recycle and their increasingly successful CashForTrash voucher incentivising the public to recycle their electricals.



Sue Ryder

We partnered with Sue Ryder, Currys, and DHL to test a new model enabling charity shops to accept donations of old electricals. The pilot ran across 12 Sue Ryder shops in London and the South East, supported by targeted communications.

Donations of electrical items rose by 93% year-on-year, boosting sales and proving strong public willingness to give. While the model was effective, collection costs were high, and future pilots will explore more sustainable options with local authorities.



Digital Inclusion  
Pilot – Nottingham

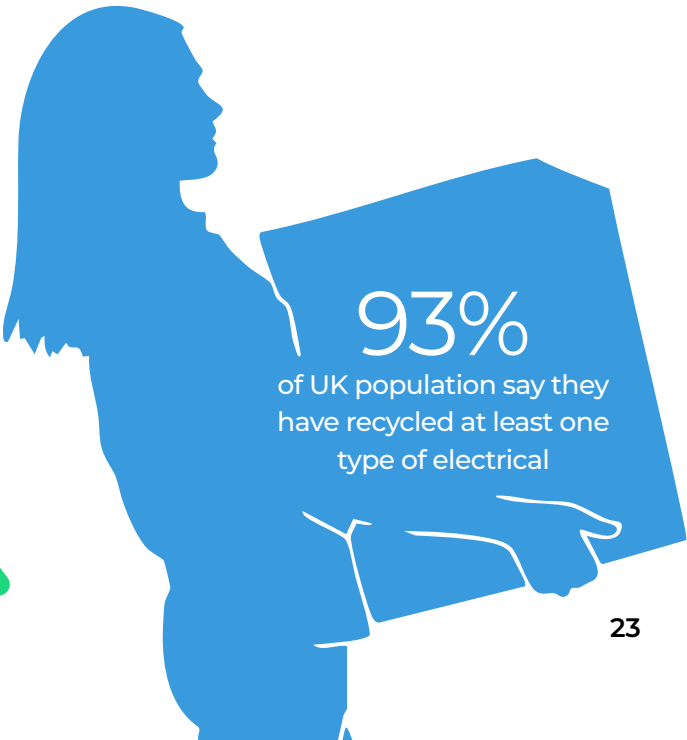
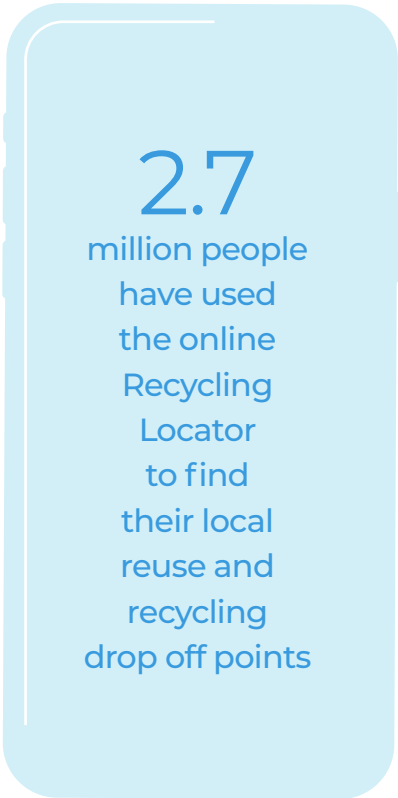
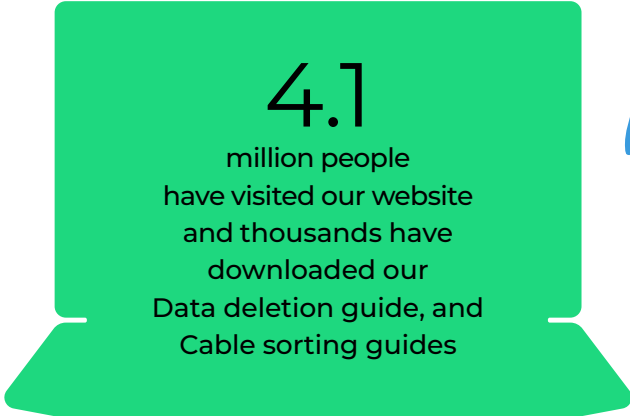
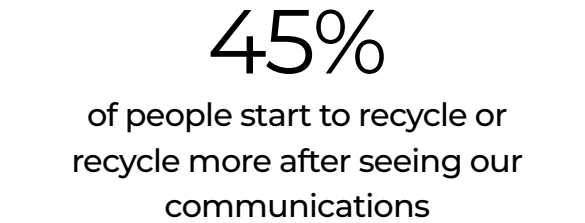
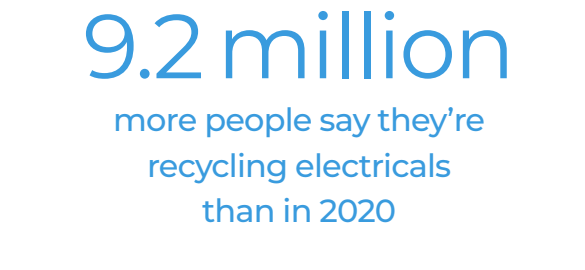
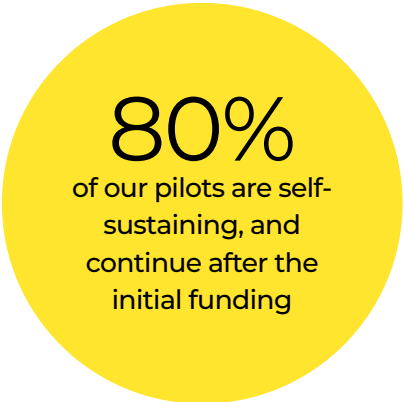
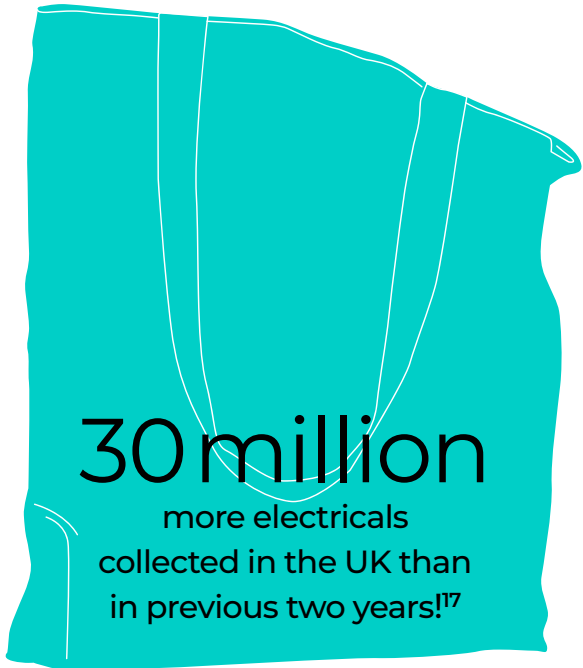
Through our pilot with Nottingham City Council, Reconome, Good Things Foundation and Framework, hundreds of residents donated their old laptops, tablets and phones.

Over 130 devices were collected, with many refurbished and given to people experiencing homelessness and digital exclusion. The project proved that making tech donation simple and inclusive can turn unused devices into vital tools for connection, learning and opportunity.



# Our impact

Today, thanks to a huge collective effort, it feels easier than ever to fix, donate, sell, and recycle our electricals – saving materials, re-distributing refurbished tech and reducing digital poverty.





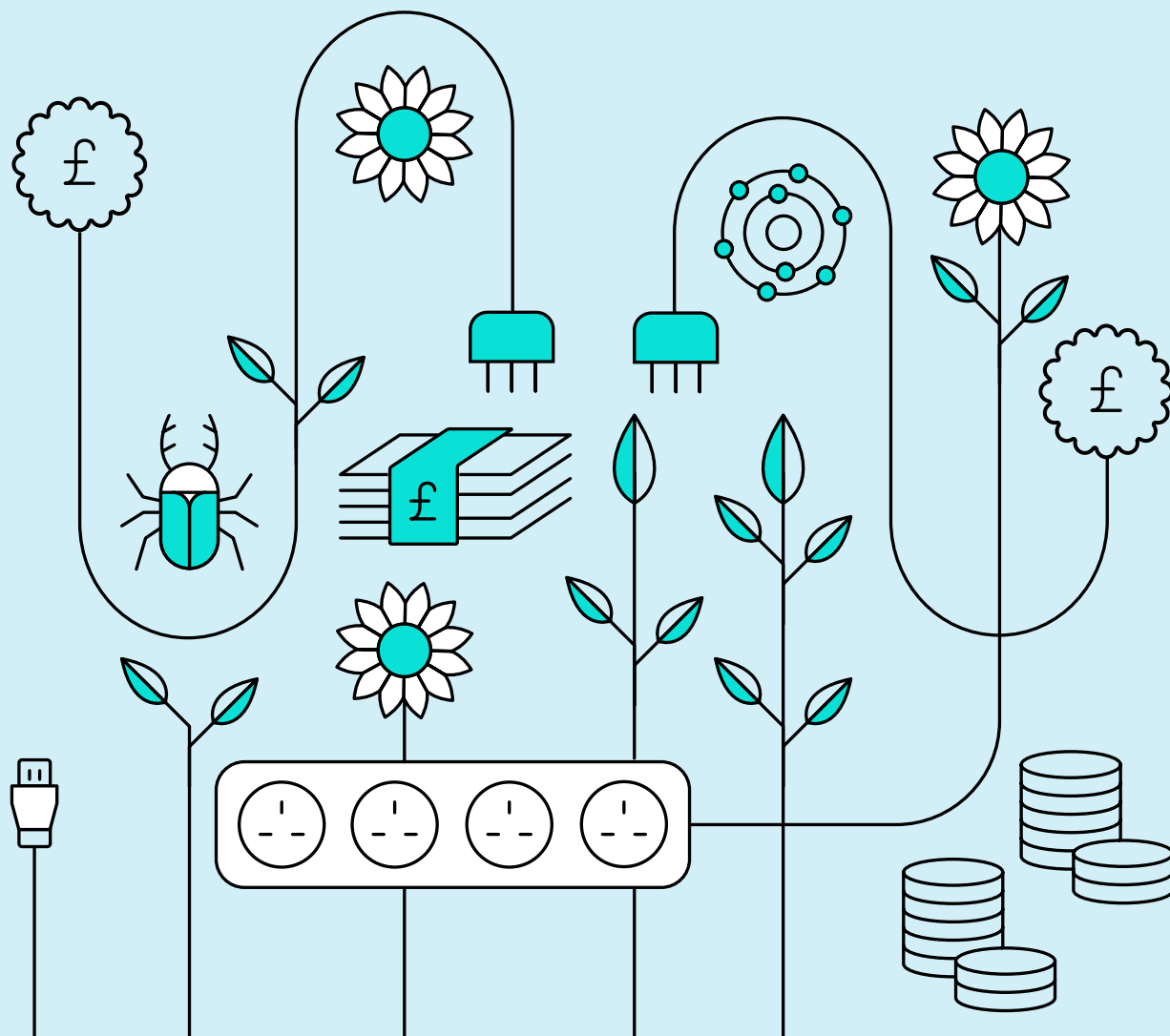
# The next 5 years

We now have a better understanding of what works and what doesn't. All informed by a strong set of data, insights, behaviour change models and experience. But despite huge progress, over 100,000 tonnes of electricals are still being thrown away every year, and over 880 million electricals sit unwanted in UK homes.<sup>18</sup>

As the UK's love of tech continues to grow, the need to keep electricals – and their materials – in use for longer

becomes more critical. Cheap FastTech, like vapes, mini-fans and light up toilet seats continue to surge onto the market, causing fires that damage vehicles, property, businesses and risks lives. And if binned, the valuable and finite materials inside our electricals are lost forever.

Our Circular Electricals approach is a blueprint for a sustainable future. Over the next 5 years we will continue to turn challenges into opportunities for people, the planet and the economy.



# A circular electricals approach

## Mapping the UK's urban mine

Rather than traditional mining, 'urban mining' valuable materials from old electricals is core to the Circular Electricals approach. We have started work with the British Geological Survey to map quantities and types of critical materials hidden inside electricals. Large electricals in particular, like e-bikes, e-scooters and vacuum cleaners collectively contain huge amounts of reusable copper, steel and other technology metals.

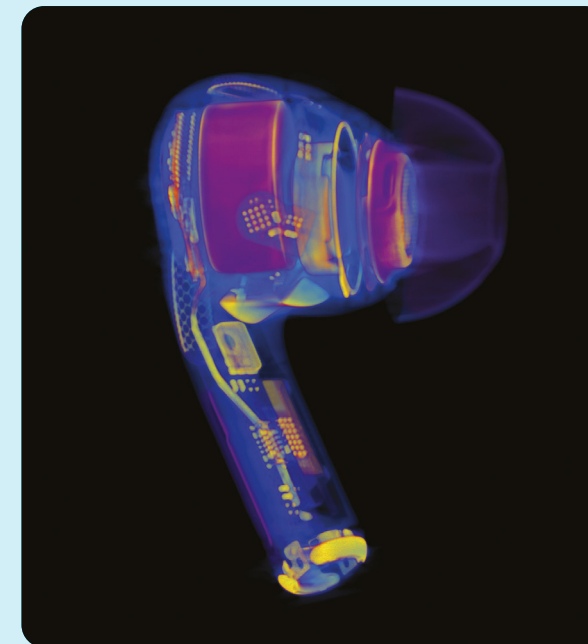
## Not all electricals are created equal

'Electricals' are not a homogenous group – we need to consider different solutions for different types of electrical. A vape and a fridge, for example, both need to be managed responsibly but present different challenges and opportunities.

## Reuse and repair first

Whilst sales of refurbished, pre-loved, second-hand electricals is accelerating, repair and donation of electricals still presents significant challenges. For repair this includes challenges of repair due to product design, availability of trained repairers, costs of repair and spare parts, safety issues of non-certified/ home repairs, and waiting time without their device or appliance. We are tackling some of these as part of our Circular Electricals Fund.

For donations, safety and quality is a significant consideration along with data protection concerns, however there is real appetite to help others. Three quarters of people in the UK have unwanted, working electricals they'd like to donate to a charity shop if only they could – but it's not sufficiently easy.<sup>19</sup> We worked with Sue Ryder, Currys and DHL on a pilot which proved that accepting electricals' donations brings significant benefits to charities – footfall, additional non-electrical donations and new revenue. We will build on this in 2026 and beyond.



Digital imaging showing precious materials inside an earbud

## Material recovery

Enhanced recycling technologies that extract more materials will need to play an increasing role within the UK, including those that are vital to the circular economy such as critical, precious or rare earth materials.

New types of electricals

New electricals like e-textiles, light up bottles and biscuit tins are being produced, and are as yet unaccounted for in the WEEE system. And challenges remain over brilliant life-saving innovations like MedTech – in-home blood pressure monitors, continuous glucose monitors and insulin pumps – that don't yet have a clear system for what to do with them once users have finished with them.

Online market-place obligations

Future challenges yet to play out include what happens with vapes. How will online market-places handle their new mandatory take-back obligations for all electricals? And how will they communicate this to buyers? Adding in prompts and messaging throughout the online customer journey to educate and nudge buyers to reuse

and recycle their electricals could help enormously. But this must be paired with building physical ease of reuse and recycling if we're going to continue to change behaviour.

Accessibility for all

We are mindful that it's still not easy for everyone to reuse and recycle, in particular those without a car, in remote and rural areas or with specific accessibility needs. Using the Material Focus Mapper, we can now identify gaps (by location, item type, action type) in reuse and recycling infrastructure in order to boost access to donation, repair and recycling options for everyone across the UK. We have recently started exploring recycling solutions for people with disabilities which prevent them from using current solutions. This will inform a 2026 brief to develop accessible options for all.

Making recycling accessible in the Highlands and other rural communities



The opportunity for electrical retailers and producers

Since we started in 2020, awareness of retailer take-back has increased by over 80% but still only 1 in 5 people are aware of this free in-store service. More electrical retailers and producers can make a big difference here by playing their part – offering free in-store take-back and educating their customers and employees about it. All whilst derisking their business by meeting their regulatory obligations, enhancing their brand, and driving footfall into their stores. Large supermarkets that sell electricals could offer and promote free in-store take-back service for all small electricals they sell to all of their customers. If they did it would significantly increase accessibility of electrical recycling options.

Final thoughts

At Material Focus we will use our experience, knowledge, network and tools to continue to accelerate progress.

We will bring together designers, producers, recyclers, local authorities, waste management sector, charities, and communities to take action. And we will continue to support retailers, producers and local authorities whilst educating and encouraging the public to act too.

This Circular Electricals approach protects the environment and prevents dangerous fires, secures critical raw material supplies, supports economic growth, and creates new jobs. It is a powerful example that circularity can be a win-win-win for people, the planet, and the economy.



# Sources

- 1 Material Focus, Mapping UK e-waste flows: key insights, 2020
- 2 Material Focus, Contributing towards a circular economy utilising Critical Raw Materials from Waste Electricals, 2021
- 3 Material Focus, YouGov research, 2023
- 4 Material Focus, Opinium research, 2023
- 5 Material Focus, Electrical Waste – challenges and opportunities, 2024
- 6 Material Focus, A Review (Economic and Environmental) of Kerbside Collections for Waste Electricals, 2021
- 7 Material Focus, Electrical Waste – challenges and opportunities, 2024
- 8 Material Focus, SWEEEP, 2020
- 9 Material Focus, Electrical Waste – challenges and opportunities, 2024
- 10 Material Focus, Electrical Waste – challenges and opportunities, 2024
- 11 Material Focus, Electrical Waste – challenges and opportunities, 2020
- 12 Material Focus, Bellwether Survey, 2024
- 13 Material Focus, Bellwether Survey, 2024
- 14 Material Focus, Bellwether Survey, 2024
- 15 Material Focus, Opinium, 2024
- 16 Material Focus, Opinium, 2023
- 17 WEEE Collected in the UK, 2020–5
- 18 Material Focus, Electrical Waste – challenges and opportunities, 2024
- 19 Material Focus, Bellwether Survey, 2024



Material Focus is an independent, not-for-profit organisation on a mission to save valuable, critical and finite materials inside electricals from going to waste. We lead the 'Recycle your electricals' campaign.



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