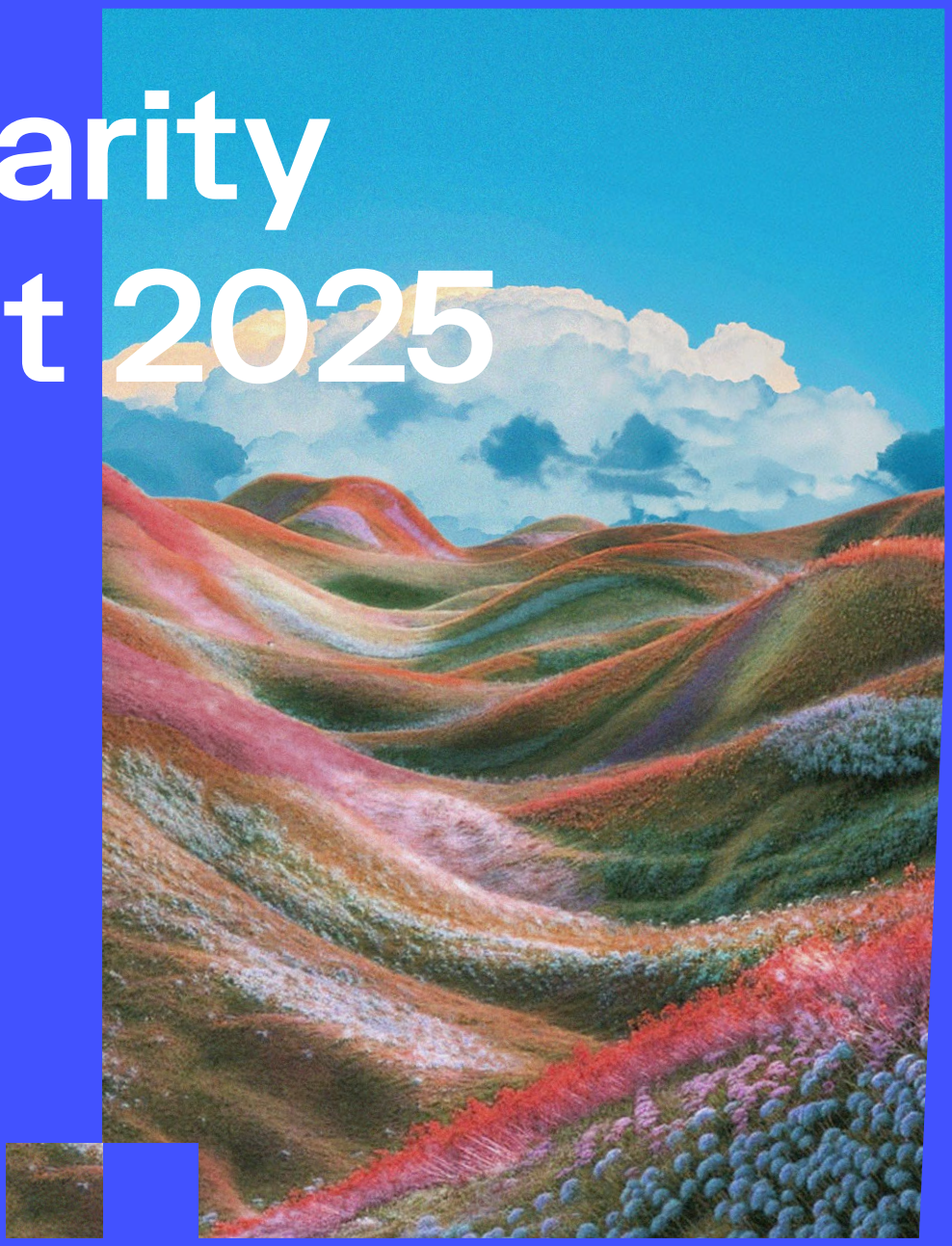
Circularity Report 2025



RAYLO.

We are building the global subscription infrastructure for the circular economy.

CEO foreword

The scale of the challenge is undeniable. Every year, the world discards over 62 million tonnes of e-waste[1]. The UK is one of the worst offenders per capita. Devices that should last for years are used for a fraction of their lifespan and then left idle in drawers or sent to landfill. At the same time, new devices are manufactured at enormous carbon cost. This is the definition of waste.

Raylo exists to change this. We are building the global subscription infrastructure for the circular economy, a system where technology is not owned but shared. Where every phone, laptop, tablet and console is returned, refurbished, and reused. Where underutilisation ends, and devices live their full life.

“145,000+ devices circulated in 2024 and 2025.”

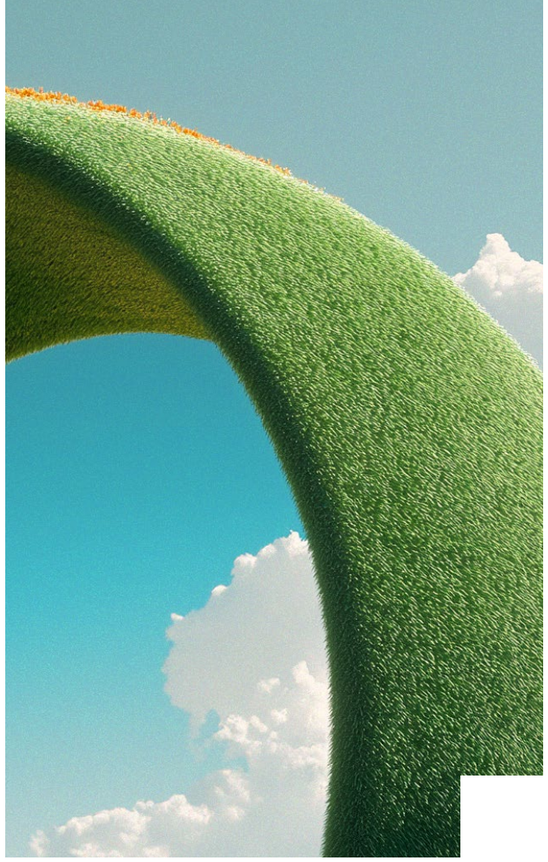
Since our last report, the progress is clear. In 2024 and 2025 we have circulated more than 145,000 devices and given 50,000 a second or third life. That’s circularity in action. Our average turnaround for a device is now just five business days, meaning a device can be rehomed almost immediately, not left hibernating for years. Every time that happens, emissions are avoided. On average, a smartphone in our circular model avoids ~120 kg CO_2e over ten years[2], a 50% reduction versus a linear system.

“Five-day turnaround — circularity at speed.”

We’ve also strengthened how we finance this mission. In 2024, we published our Green Financing Framework and earned an independent opinion from S&P confirming alignment with global standards. For investors, this means confidence that every pound raised is tied directly to circular outcomes: emissions avoided, devices reused, and waste prevented.

Still, the opportunity ahead is even greater. In the UK alone, ~200 million devices sit unused in homes[3]. Each one represents wasted resources and lost value.

That’s why we are quickly expanding. Today, Raylo powers access not only to smartphones but also wearables, computers, laptops, tablets, and consoles. We’ve launched Raylo for Business, giving small businesses the flexible and affordable access to the tech they need. And we’ve deepened partnerships with leading electronics brands, most notably with PlayStation, where our PlayStation Flex service lets customers subscribe to the latest consoles directly through PlayStation’s website. It’s proof that circularity is already ready for the mainstream.



“~120 kg CO_2e avoided per smartphone over 10 years.”

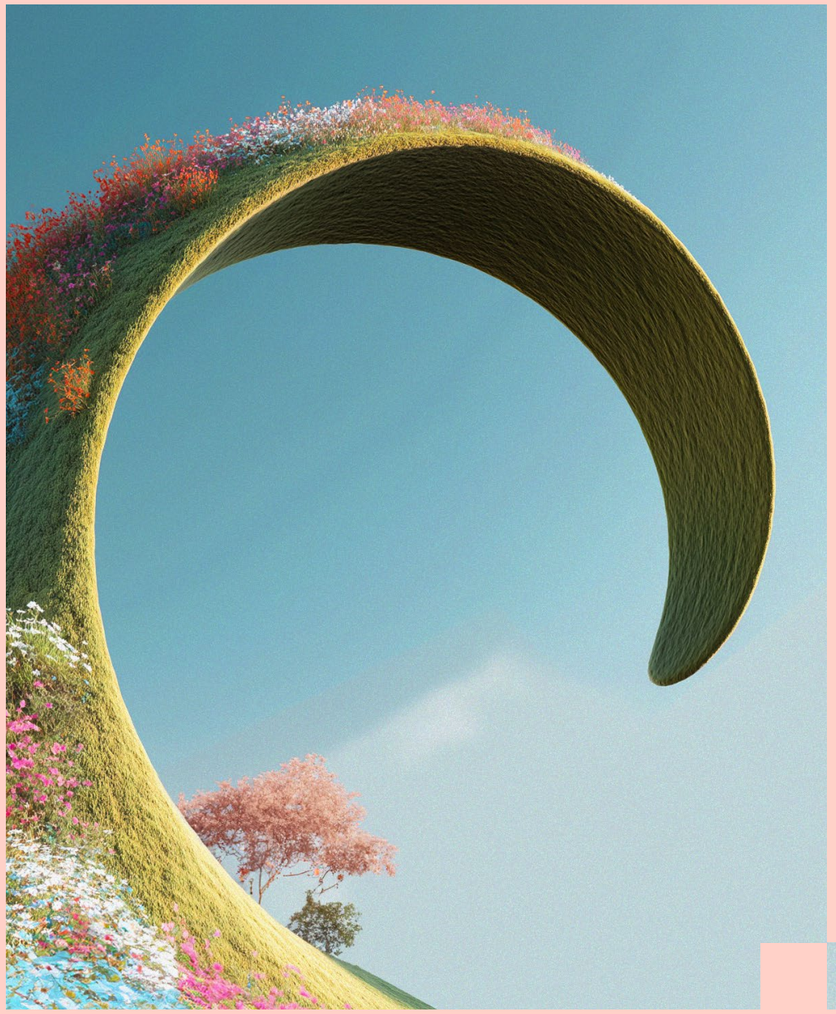
Every customer matters. Every additional reuse cycle counts. Every avoided tonne of emissions compounds. Every new partnership and every investor helps push the system further away from waste and closer to true circularity.

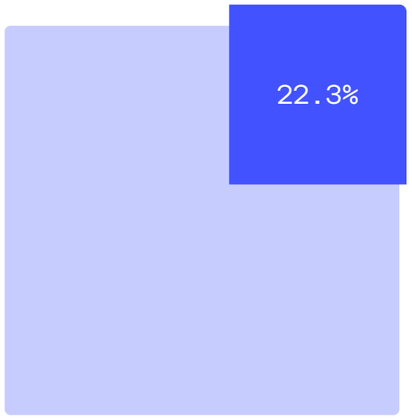
To our partners, investors, and customers: thank you for believing in this mission. Together we are proving that circular technology isn’t just possible, it’s better — for consumers, for businesses, and for the planet.

The problem may be vast but the opportunity is bigger.

Karl Gilbert
Co-founder & CEO

The linear problem





Only 22.3% of e-waste is officially recycled, with the remainder destined for landfill or incineration.

Technology consumption is still locked in an outdated and inefficient model. Often described as “take-make-dispose”, this linear economy extracts resources from the earth, manufactures devices, uses them for only part of their potential lifespan, and ultimately discards them as e-waste.

The majority of technology’s carbon cost comes from production. Every underused device means another is built, and more emissions are locked in.

While images of discarded devices in landfill are troubling, the real problem lies further upstream. Premium technology with years of useful life left is abandoned in drawers or cupboards, while new devices continue to be manufactured at scale.

Today, this is not just a smartphone issue. Laptops, tablets, consoles, and wearables all face the same fate: short upgrade cycles, long idle periods, and a mountain of hidden emissions that come with unnecessary overproduction.

Globally, only 22.3% of e-waste is officially recycled, with the remainder destined for landfill or incineration[4].

This chronic underutilisation is the root cause of the linear problem. Every idle device is wasted value and a trigger for more carbon-intensive production. Unless the cycle is broken, millions more devices will continue to be manufactured unnecessarily, locking in emissions and depleting scarce resources.

At the heart of the linear problem is underutilisation, the hidden driver of avoidable emissions.

Underutilisation & emissions

Underutilisation is the single biggest driver of unnecessary emissions in the technology sector.

Every device has a useful life - the period during which it remains functional and fit-for-purpose. For smartphones, laptops, and tablets, this can extend to seven years or more for premium brands[5]. Consoles, too, are designed for long usage cycles, with many still performing well a decade after launch.

Yet in practice, the use phase represents ~40% of this potential life, with the remainder spent wasted, unused in drawers. Consumers typically upgrade after 2–3 years, leaving fully functional devices in a 'hibernation' phase – unused but still retaining significant value[6].

This isn't a niche problem. In the UK alone, ~200 million electronic devices are currently hoarded and unused. Globally, millions of tonnes of carbon are being locked into production each year because devices are not being kept in circulation.

Why underutilisation drives emissions

The connection between underutilisation and emissions is clear:

- Hibernating devices are excluded from global supply chains.
- Demand continues across mid- and low-price markets.
- The only way to fill that demand is to manufacture new devices.

Production is by far the most carbon-intensive stage of the lifecycle. For smartphones, it accounts for ~80% of total emissions[7]; for laptops and tablets, the share is even higher. This means every device that goes unused triggers the emissions of another that did not need to be made.

"In the UK alone, ~200 million electronic devices are currently hoarded and unused."

Carbon footprint across devices

Smartphone	55-135 kg CO_2e	
Tablet	65-120 kg CO_2e	
Laptop	120-300 kg CO_2e	
Console	475-750kg CO_2e	(~75% of carbon consumption is from product use)
Wearables	8-14 kg CO_2e	

These figures underline a critical truth: underutilisation is not just wasteful, it is a climate issue. Each device abandoned early represents hundreds of kilograms of unnecessary carbon emissions.

How Raylo tackles underutilisation

At Raylo, devices don't languish in drawers. When one subscriber upgrades, their device is returned, refurbished, and placed into the hands of another customer within five business days. This rapid rehoming ensures technology remains in active use, slashing the idle 'hibernation' period that drives waste.

If the UK's 88.4 million active smartphones alone shifted to a circular model[8], the annual savings would reach 1.12–1.28 million tonnes of CO_2e, the equivalent of removing up to 873,000 cars from the road. And when laptops, tablets, and consoles are included, the impact can multiply more than five-fold.

1.12

million tonnes of CO_2e saved if we shifted to a circular model

Overproduction & carbon emissions

Underutilisation drives overproduction, and overproduction drives emissions.

When devices sit idle, demand does not disappear. It shifts back to manufacturers, who produce more new devices to meet it. Each new device locks in its full carbon footprint before it is even switched on.

Lifecycle analysis shows that production is by far the most carbon-intensive stage. For smartphones, it accounts for ~80% of lifetime emissions, this is similar for laptops and tablets. Preventing unnecessary manufacturing is therefore the single most powerful way to reduce emissions at scale.

Carbon-neutral ≠ Zero-carbon

Some manufacturers now market “carbon-neutral” devices. This is an important step forward, but it does not mean devices are now produced without emissions.

Carbon neutrality usually means emissions have been balanced elsewhere, often through carbon credits or removals, rather than eliminated at source. The device itself still required energy, resources, and manufacturing emissions to be created.

The bottom line is simple: even if devices are marketed as ‘carbon-neutral,’ the greenest device is the one already in use. By keeping technology in use longer, we avoid the bulk of emissions entirely.

Why traditional refurb isn’t enough

Refurbishment has long been positioned as the industry’s answer to electronic waste. Trade-in programmes, buy-back schemes, and third-party refurbishers do play an important role, but they are failing to address the scale of underutilisation.

The problem with trade-in

While refurbished devices are gaining traction, especially in smartphones, trade-in loops remain slow, fragmented, and inefficient.

- A 2025 Vodafone study found that 40% of UK consumers plan to buy their next smartphone as refurbished[9]. Meanwhile, in the UK it is estimated that 527 million electronic devices lie unused in homes[10], with many locked in drawers despite being functional.

- Trade-in programmes are often cumbersome, confusing, and time-consuming, leading to poor customer engagement. For many, the most convenient option is still to leave an old device in a drawer.

This lag means refurbished devices take weeks or even months to re-enter circulation, if they make it back at all. In a system where demand for new devices is constant, that delay drives more overproduction.

How Raylo is different

At Raylo, refurbishment is not an afterthought, it is the foundation of our circular model.

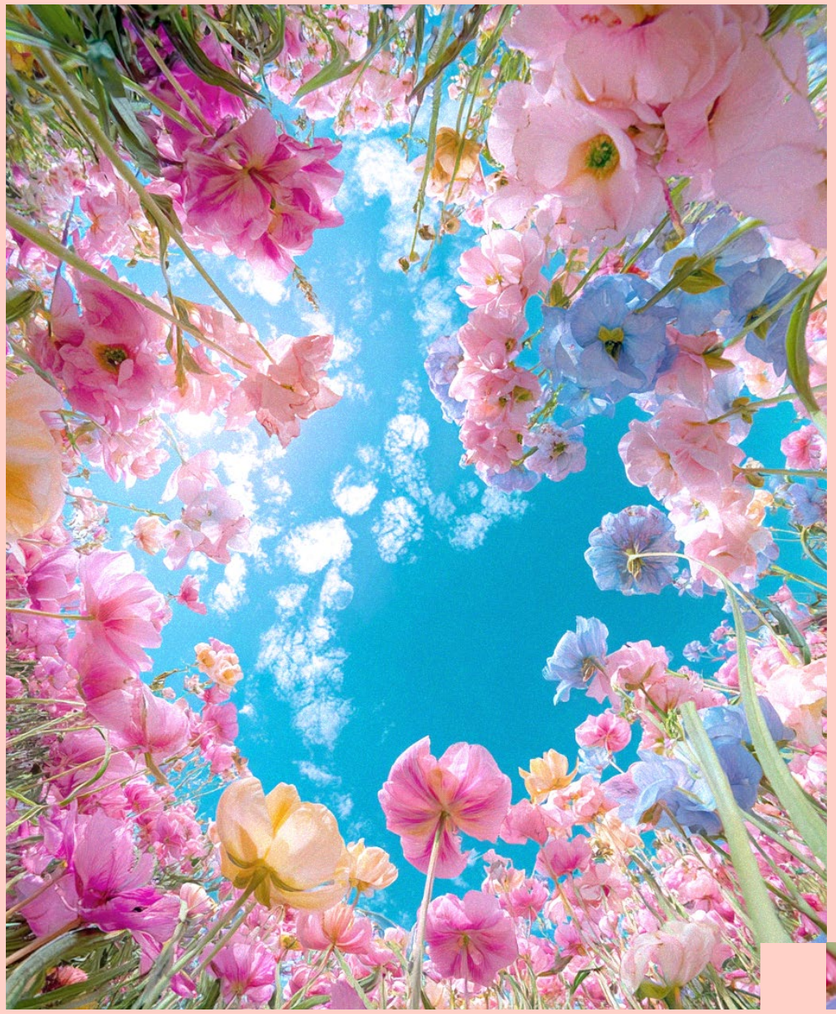
- Devices can be rehomed within five business days of return.

- Seamless upgrades with no complicated trade-in steps.

- Guaranteed reuse, every device is either reused, refurbished, or responsibly recycled.

This speed matters. The shorter the idle period, the greater the emissions avoided. By keeping technology in motion, Raylo maximises utilisation and prevents unnecessary new manufacturing.

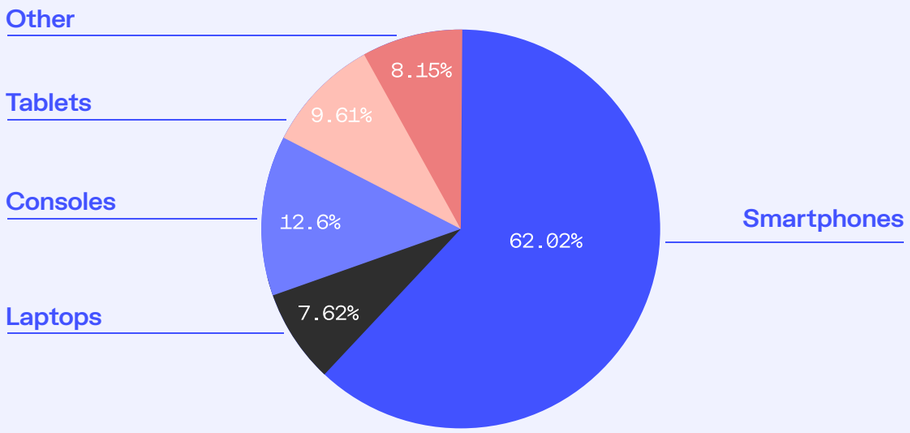
Real world impact



For Raylo customers, circularity isn’t abstract, it’s visible. Each time a device is returned, refurbished, and rehomed, customers receive real-time updates showing where their old tech has gone next.

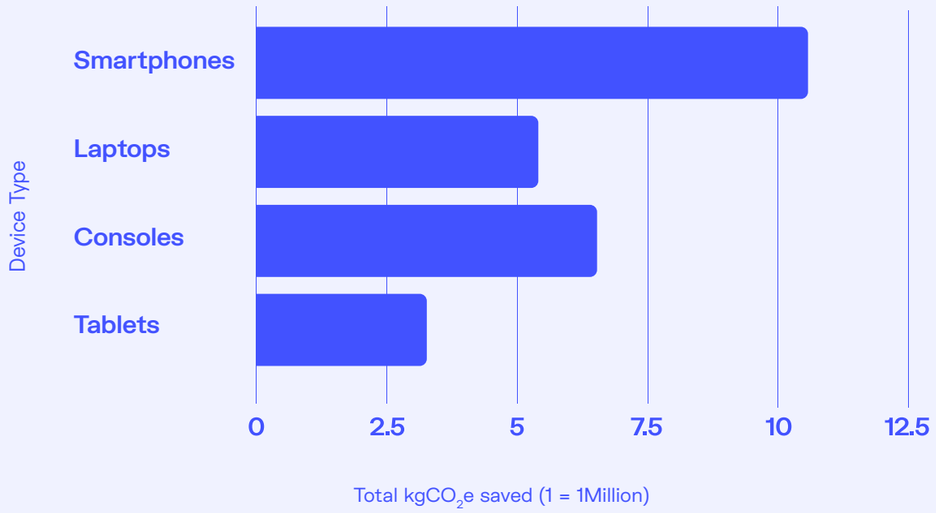
These updates turn wasted potential into visible impact, proof that circularity works in everyday life.

Climate savings at scale



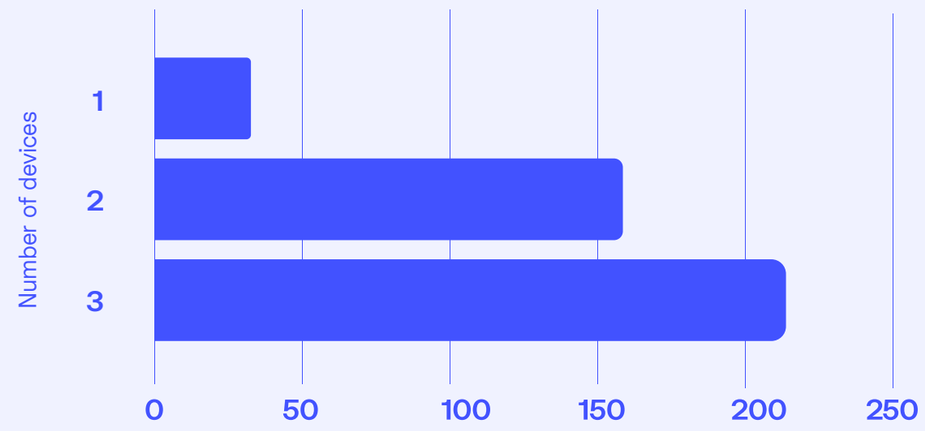
% Of Raylo orders by device type

CO_2e saved per product category



Raylo Circularity Report 2025

Emissions avoided per customer by number of devices leased



Scaling adoption & access

Circularity only works at scale if it's accessible. That means making the benefits of sustainable consumption available to everyone, not just those able to pay premium prices.

At Raylo, accessibility and sustainability go hand in hand. Our subscription model lowers upfront costs, offers flexible terms, and guarantees devices are returned and reused. This approach has unlocked adoption not only in smartphones, but increasingly across laptops, tablets, and consoles, categories that are traditionally more expensive and carry even larger carbon footprints.

Laptops are traditionally one of the most expensive categories, and with an average lifecycle footprint of between 120-300 kg CO_2e, almost three times that of a smartphone, they carry a heavier climate cost too. By making laptops available via low-cost monthly subscriptions, Raylo helps individuals and small businesses access the tools they need, while avoiding the unnecessary production of new devices. Similarly, our work with partners like PlayStation has shown that consoles can thrive in a circular model, with high utilisation rates and immediate rehoming after each subscription cycle.

Sustainability x access

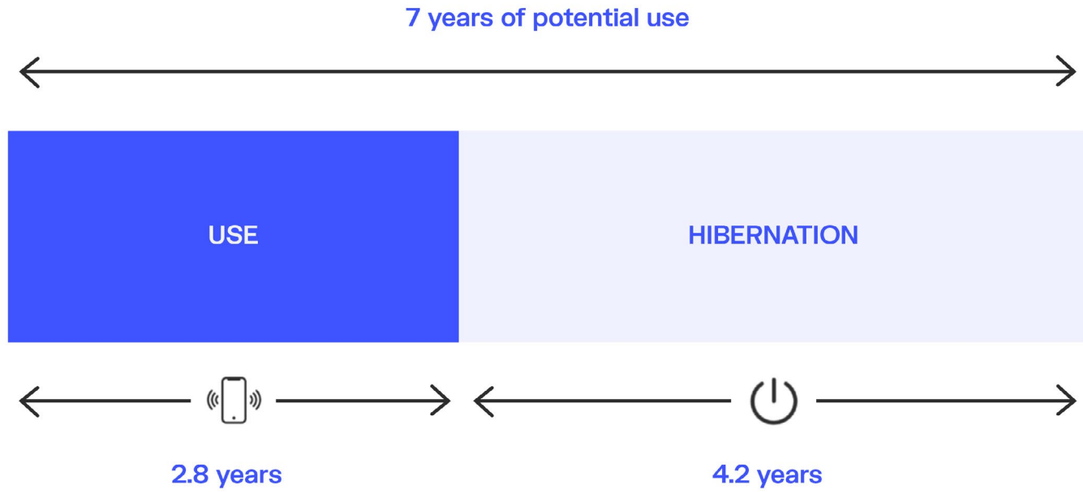
Sustainability is often positioned as a trade-off against affordability. At Raylo, we prove the opposite.

- **Flexible pricing:** Rolling or fixed terms, starting from just one month.
- **Broader choice:** Premium smartphones, high-performance laptops, and gaming consoles, all available through Raylo's expanding product range. Making premium tech not only accessible but sustainable.
- **Built-in sustainability:** Every device is returned, refurbished, and rehomed, maximising its lifecycle and cutting emissions.

Our subscription model means Raylo customers avoid emissions without compromising on price or flexibility. Sustainability is not an add-on, it is embedded in the model itself.

"Access to technology should never come at the expense of the planet."

Raylo's device impact dashboard



Packaging, transport & materials

Packaging

We prioritise recycled and recyclable materials across all packaging, eliminating virgin plastics wherever possible. In 2025, we expanded these standards to cover the full product range, including smartphones, tablets, laptops and consoles.

- Smartphones and tablets are shipped in slimline boxes designed to reduce material use and transport volume.
- Laptops and consoles now arrive in reinforced cardboard packaging that is 100% recyclable, replacing the polystyrene still standard elsewhere in the sector.
- All printed inserts are made from FSC-certified recycled paper.

By eliminating virgin plastics and maximising the use of recycled fibre, our packaging contributes directly to reduced lifecycle emissions and lower waste volumes.

Phone accessories

Every Raylo smartphone comes with a high quality and durable case and screen protector, free of charge. These accessories keep devices in good condition throughout multiple reuse cycles, reducing the need for replacement parts and premature refurbishment.

5,188,002

Total emissions saved ($kgCO_2e$) from recirculating refurbished devices

Transport

Transport remains a critical component of lifecycle emissions, but through our logistics partnerships we are reducing this footprint year on year.

- **Reverse logistics:** When devices are returned, refurbished, and redeployed, movements are kept domestic where possible, avoiding the carbon intensity of international shipping.
- **Courier partner:** We work with DPD, a recognised leader in sustainable last-mile delivery. DPD reports that one third of its UK final-mile van fleet is now electric, with expansion underway[11]. Their London sortation centre already operates at over 90% electric deliveries[12]. At Raylo, we are working towards a future where the majority of our London deliveries are completed by zero-emission vans, an ambition aligned with DPD's electrification roadmap.
- **Forward shipments:** For new laptops and consoles shipped from overseas manufacturers, we prioritise sea freight over air freight wherever supply chains allow, further reducing emissions.

Materials and end-of-life

Our circular model ensures that materials retain value far beyond a single use cycle.

- **Reuse first:** Devices are refurbished and rehomed multiple times.
- **Recycling partners:** At the end of a device's useful life, we work exclusively with R2-certified recyclers, ensuring that critical raw materials (such as cobalt, lithium, and rare earth elements) are recovered safely and responsibly.
- **Waste diversion:** By keeping devices in circulation and ensuring responsible recycling, we prevent significant volumes of potential e-waste from ever reaching landfill.

Green financing & ESG governance

Our Green Financing framework

In October 2024, we published our first Green Financing Framework, establishing a transparent standard for aligning our financing strategy with our sustainability mission. The framework is fully consistent with global best practices in sustainable finance, including the ICMA Green Bond Principles (2021) and the LMA/LSTA/APLMA Green Loan Principles (2023).

The framework ensures that proceeds from any green financing instruments are allocated exclusively to eligible assets - Raylo subscriptions that extend device lifetimes through our lease-and-reuse model. By directly linking our capital structure to measurable environmental outcomes, we are embedding sustainability at the core of our growth model.

ESG governance

Oversight of the framework sits with the Raylo ESG Committee, which meets quarterly and reports directly to the Board. The Committee is responsible for:

- Reviewing and approving the Framework and any amendments.
- Selecting and approving eligible assets for the green portfolio.
- Monitoring allocations of proceeds across debt instruments.
- Preparing and verifying annual allocation and impact reports.

ESG Committee membership:

Karl Gilbert
Director and CEO

Richard Fulton
Director and
Chief Risk Officer

Sze Ning Chng
Risk Strategy Manager

Raylo Circularity Report 2025

“Every pound raised through green finance helps us avoid emissions, extend device lifetimes, and accelerate the circular economy.”

KPIs and impact alignment

Our framework defines a suite of circular economy and emissions KPIs, aligned with the UN Sustainable Development Goals (SDGs) and impact reporting guidance from ICMA.

Key metrics include:

- **Avoided emissions** of reused devices (kg CO_2e)
- **Carbon footprint** of assets (kg CO_2e)
- **% of devices** in second or third cycles of ownership
- **Number of devices** reused per year
- **% of recycled waste and renewable** content per product
- **Average lifetime of devices** in years (vs. equivalent linear economy)
- **Volume of redundant products** refurbished or remanufactured, in tonnes per annum

These metrics ensure that every green financing instrument is tied to tangible reductions in waste and emissions, as well as broader circularity outcomes.

Independent review

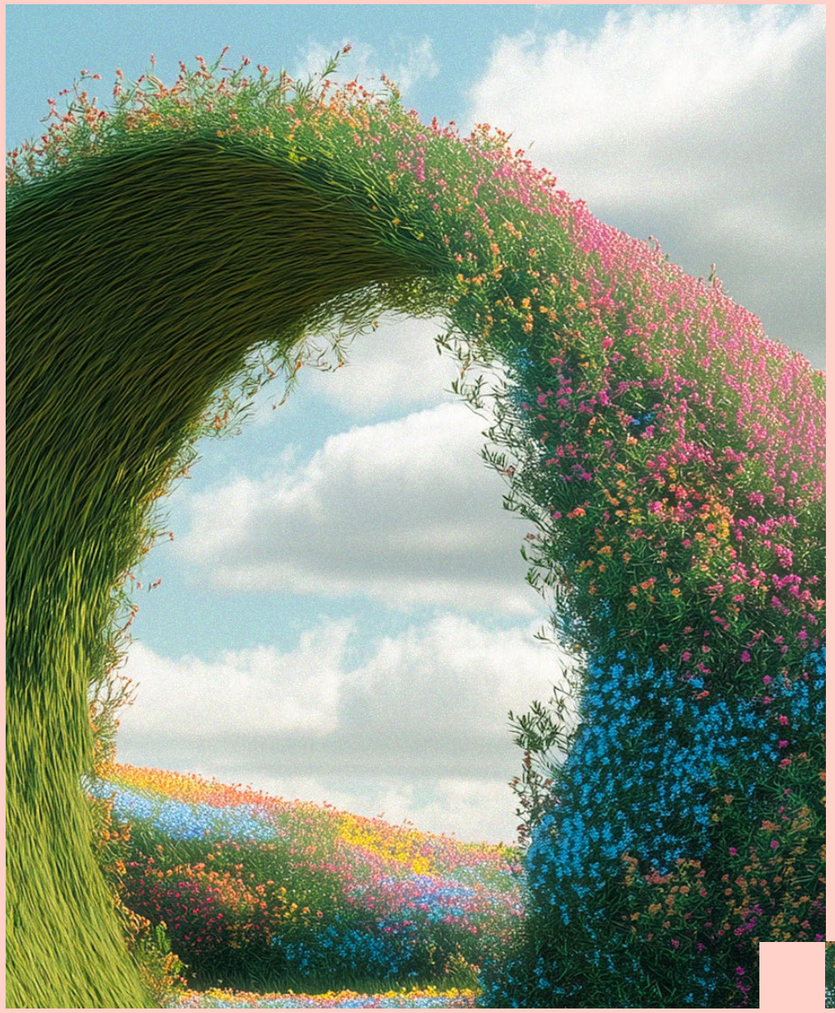
To ensure credibility, Raylo sought an independent Second Party Opinion from S&P Global Ratings. S&P confirmed that:

- The framework aligns with ICMA Green Bond Principles and LMA Green Loan Principles.
- Our subscribe-and-reuse model delivers material environmental benefits through avoided e-waste and reduced lifecycle carbon emissions.
- Proceeds are allocated in line with our Sustainability Policy and exclusion criteria.

Embedding circularity in finance

Through the Green Financing Framework, Raylo is demonstrating that our subscription infrastructure for the circular economy is both environmentally impactful and financially robust. By linking our financing to measurable sustainability KPIs, we are ensuring that our growth directly contributes to climate solutions.

Looking ahead



Our roadmap

Sustainability is not a static commitment but a continuous journey. Over the next two years, Raylo will focus on three strategic priorities to accelerate our impact:

1. **Net-zero planning**
    - We will develop a clear pathway to net-zero across our operations and financed emissions.
    - This includes setting science-based interim targets, mapping supply chain dependencies, and integrating renewable energy commitments across partners.
2. **Nexus device lifecycle tracking**
    - We continue to develop a real-time impact dashboard to track every single Raylo device.
    - This will allow us to measure avoided emissions, re-use cycles, and material recovery with unprecedented accuracy and report transparently to our customers, investors, and regulators.
3. **Further category expansion**
    - In 2024–25, we introduced 214 more devices, including consoles, laptops, and wearables to Raylo's subscription model.
    - Looking forward, we will continue to work alongside major brands to expand into new categories, enabling more households and businesses to access technology in a sustainable, circular way.

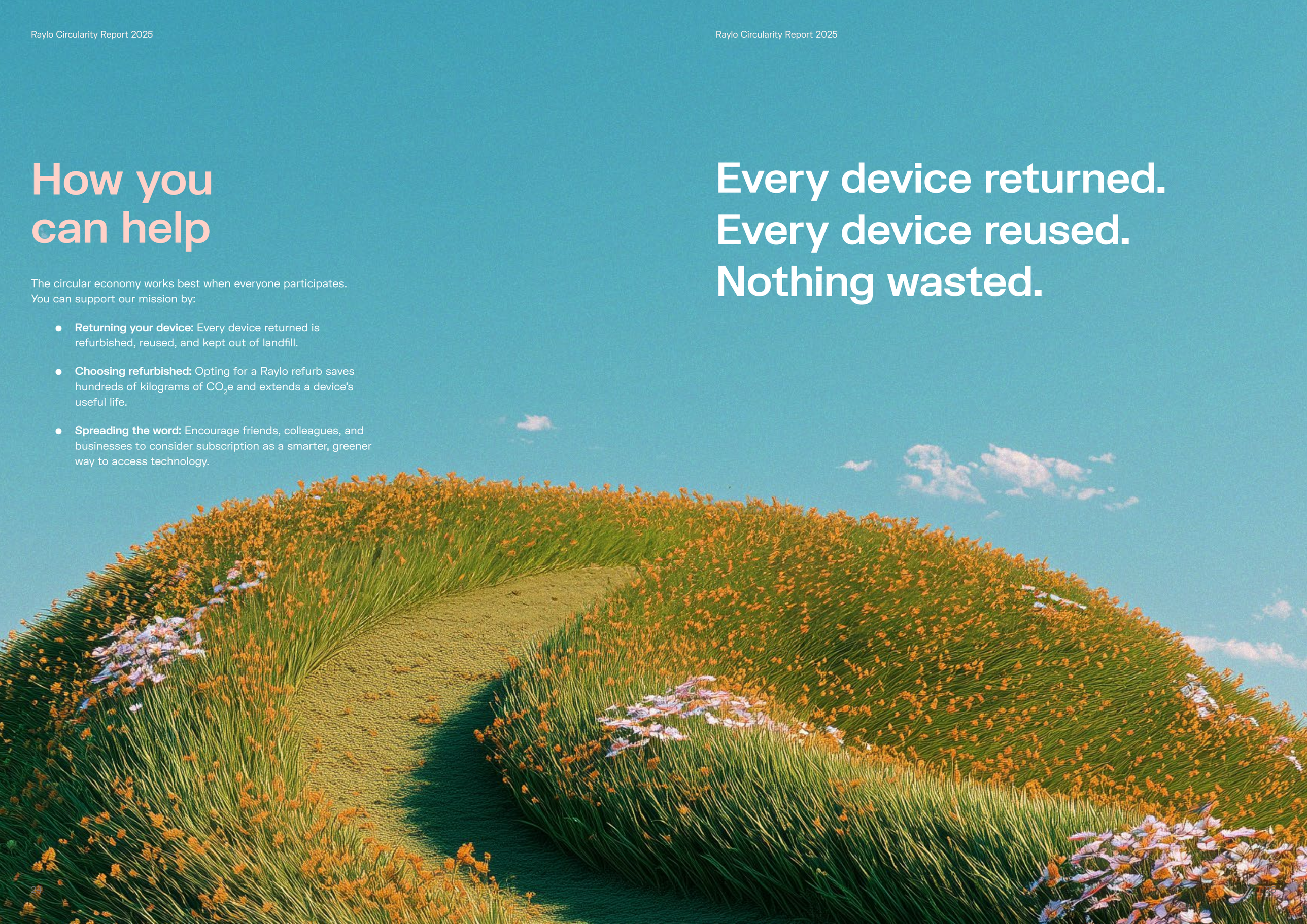
How you can help

The circular economy works best when everyone participates. You can support our mission by:

- **Returning your device:** Every device returned is refurbished, reused, and kept out of landfill.
- **Choosing refurbished:** Opting for a Raylo refurb saves hundreds of kilograms of CO_2e and extends a device's useful life.
- **Spreading the word:** Encourage friends, colleagues, and businesses to consider subscription as a smarter, greener way to access technology.

Raylo Circularity Report 2025

Every device returned. Every device reused. Nothing wasted.



Impact methodology (Appendix)

Overview

Raylo's methodology quantifies the emissions avoided through our circular subscription model compared to a traditional linear consumption model. The approach is grounded in lifecycle analysis (LCA) and updated annually to reflect the latest Apple Environmental Product Reports (2025), which remain the industry benchmark for device carbon footprints.

By focusing on avoided emissions from underutilisation, we measure the environmental benefits of keeping devices in circulation, ensuring every phone, laptop, tablet, and console delivers its full potential lifetime value.

Lifecycle baselines

Apple's 2025 Environmental Progress Report and associated Product Environmental Reports (PERs) provide updated lifecycle carbon footprints across categories. These footprints include production, transport, use phase, and end-of-life.

Average lifecycle carbon footprints (Apple PERs, 2025):

Device	Lifecycle Footprint	Source
Smartphone	64 kg CO_2e	Apple iPhone 17 PER, 2025
Tablet	107 kg CO_2e	Apple iPad PER, 2024
Laptop	279 kg CO_2e	Apple MacBook Pro PER, 2025
Console	745 kg CO_2e	Xbox One X

Note: Console figures are drawn from independent lifecycle studies,which include both manufacturing and years of energy use

Raylo Circularity Report 2025

Circular model assumptions

Our avoided emissions calculations compare the linear model (short upgrade cycles, underutilisation, new production) against the Raylo circular model (extended lifespan via rapid redeployment and reuse).

- **Device lifetime potential:** Premium devices function for 7+ years; consoles can last a decade or more.
- **Consumer upgrade cycles (linear):** 2.8 years average, leaving >40% of potential life unused.
- **Raylo reuse cycles:** Devices circulate through 2–3 customers, achieving close to their full technical lifespan.
- **Turnaround time:** Average redeployment reduced from 10 days (2023) → 5 business days (2025).
- **Logistics:** Majority of returns/refurbishment handled domestically; sea freight prioritised for overseas imports; one-third of DPD's UK final-mile van fleet now electric, with London >90% electric.
- **Packaging/materials:** 100% recyclable fibre packaging, FSC-certified inserts, and elimination of virgin plastics.

Emissions avoidance calculations

We calculate avoided emissions as:

Avoided = (Linear baseline footprint × devices manufactured under linear model) – (Circular footprint × devices reused under Raylo model).

Key methodological updates since 2023

- Operational efficiency: Redeployment turnaround halved (10 days → 5 days).
- Transport: Higher share of domestic refurbishment and zero-emission last-mile deliveries.
- Packaging: Full elimination of virgin plastics across all categories.

Device	Linear Model (kg CO2e)	Raylo Model (kg CO2e)	Avoided (kg CO2e)	% Reduction
Smartphone	247	126	121	49%
Tablet	407	187	220	54%
Laptop	1,011	516	495	49%
Console	1,791	1,443	348	20%

Calculations draw from Apple PER baselines (2025) and constants from Raylo's 2023 methodology. Adjustments are made to reflect improved turnaround times and domestic logistics in 2025.

Impact methodology (Appendix)

Limitations

- Device footprints are Apple-based proxies; actual OEM impacts may vary.
- Console footprints derived from independent LCAs, dependent on assumed energy use.

Scope 3 financed emissions (capital markets) reported separately under Green Financing.

Conclusion

Our 2025 methodology confirms that Raylo's subscription model achieves ~40-50% lifecycle emissions savings across all major device categories. By tackling underutilisation and enabling multiple reuse cycles, Raylo prevents unnecessary production and diverts devices from landfill, delivering measurable impact for customers, investors, and the planet.

Bibliography

(1) https://ewastemonitor.info/wp-content/uploads/2024/12/GEM_2024_EN_11_NOV-web.pdf

(2) https://www.compareandrecycle.co.uk/blog/environmental-impact-of-your-smartphone

(3) https://www.vodafone.co.uk/newscentre/press-release/over-200-million-unused-devices-languishing-in-british-homes/

(4) https://ewastemonitor.info/the-global-e-waste-monitor-2024/

(5) https://www.statista.com/statistics/619788/average-smartphone-life/

(6) https://www.carbontrust.com/news-and-insights/insights/smart-phones-smart-choices-harnessing-purchasing-power-to-reduce-the-carbon-impact-of-our-phones

(7) https://www.carbontrust.com/news-and-insights/insights/smart-phones-smart-choices-harnessing-purchasing-power-to-reduce-the-carbon-impact-of-our-phones

(8) https://www.uswitch.com/mobiles/studies/mobile-statistics/

(9) https://www.vodafone.com/news/protecting-the-planet/gen-z-leads-the-way-on-buying-refurbished-devices

(10) https://www.materialfocus.org.uk/?press-releases=only-a-third-of-the-uk-are-recycling-their-unwanted-electricals

(11) https://sustainability.dpd.co.uk/static/media/SustainabilityReport2023.0f31cedc7e5ec589f40c.pdf

(12) https://www.fleetpoint.org/electric-vehicles-2/dpd-confirms-a-third-of-final-mile-van-fleet-now-electric/#:~:text=DPD%20confirms%20a%20third%20of%20final%20mile%20van%20fleet%20now%20electric%-20%2D%20FleetPoint

Raylo Circularity Report 2025

RAYLO.