Sustainability Leaders, 2025

A review of sustainability initiatives by major print vendors

Sustainability Leaders, 2025
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Excerpt report: Sharp

QUOCIRCA

Executive summary

The sustainability landscape continues to shift as political focus, regulatory implementation delays, and economic factors exert sometimes competing influences on sustainability programmes. Print manufacturers and their partners are striving to deliver measurable reductions across Scope 1, 2, and 3 GHG emissions; minimise and mitigate product lifecycle impact; and provide credible, accessible information for customers to support their own sustainability initiatives.

Quocirca's Sustainability Trends, 2025 report finds that eight in 10 organisations are accelerating sustainability plans, and a supplier's sustainability credentials are an important selection factor. However, the study also finds that customers have concerns about greenwashing by vendors, further underlining the importance of providing evidence: accurate corporate and product sustainability information. The vendors participating in Quocirca's Sustainability Leaders report have submitted detailed information covering corporate and product sustainability strategies and progress against targets.

Momentum and experience are building in the drive to reach net zero. While 2050 is the predominant target for full net zero, companies are setting ambitious 2030 goals for significant reduction or net zero across Scope 1 and 2 emissions. Scope 3 emissions, comprising the largest component of a company's overall emissions responsibility, remain a bigger challenge. However, HP and Xerox have committed to net zero by 2040, including Scope 3 emissions, with Ricoh targeting a 65% reduction by 2040.

Epson is the first company within the competitive set to achieve fully renewable energy consumption, a goal it reached at the end of 2023 across all group sites. Other vendors have also progressed in renewable energy consumption, with Sharp recording the biggest increase, albeit from a low starting position, bringing it into line with Brother, Xerox, and Konica Minolta in the 20–30% range, with Ricoh and Lexmark standing at over 40%. It should be noted, however, that some vendors previously stated targets of 80–100% renewable energy use by 2025, which they have not been able to realise.

Industry leaders are forging ahead with data-centric solutions for carbon neutrality, offsetting, and avoidance. HP, Ricoh, and Xerox all have offerings in this area, helping customers track and improve print infrastructure performance. Vendors are also answering customer demand for product information, with a rising proportion of new devices being accompanied by lifecycle assessments.

Moves are being made in the parts and supplies market, too. Katun, with its long consumables history, has entered the hardware market this year with its Arivia MFP line, while vendors have begun deeper exploration of cartridge remanufacturing and making improvements to OEM cartridges and device components for better recyclability and reuse. Responding to forthcoming repairability regulation, Sharp has piloted an additive manufacturing project where spare parts are 3-printed on demand, removing the need to maintain stock and transport spare parts.

The amount of PCR plastic content included in devices continues to rise slowly, with new products incorporating higher percentages in general. However, some vendors are reporting challenges of supply, quality, and cost when sourcing appropriate PCR to introduce into products. Recycled metal components are also starting to appear in devices. Quocirca's Sustainability Trends 2025 study finds that the proportion of organisations using or willing to use remanufactured or refurbished devices has risen, but concerns remain around hidden costs, reliability, and security. Most vendors are continuing to build momentum in this area, with a notable new initiative from Epson Europe with its circular leasing programme that sees it retaining ownership of its devices after the end of the lease, providing an assured pipeline of products for refurbishment. HP, however, has discontinued its plans to extend HP Renew to its MFP and printer products. Ricoh uses a similar approach and has also introduced its CE (Circular Economy) line of devices to complement its existing GreenLine range.

This report provides an overview of the print vendor sustainability landscape in 2025, exploring how vendors are accelerating sustainability goals across business operations, sustainability is embedded across products and services through circular programmes, and the channel is being supported. The report includes detailed profiles for participating vendors: Brother, Canon, Epson, HP, Konica Minolta, Lexmark, Ricoh, Sharp, Toshiba, and Xerox. Print vendors' sustainability targets are summarised in the Appendix.

Key findings

- **Quocirca's Sustainability Leaders continue to bolster strategies and improve execution.** Progress demands an integrated approach that embraces rising use of renewable energy, designing for sustainability to improve energy efficiency, driving digital solutions and services innovation, and more intense recycling practices including device refurbishment and remanufacturing. The leadership group comprises Xerox, HP, Canon, Lexmark, Epson, and Ricoh, and the major players are Brother, Sharp, Konica Minolta, and Toshiba. Brother and Sharp have edged closer to the Leadership group.
- **2050 is the predominant net zero target, but more ambitious interim goals are being established.** Pressure is building to accelerate timelines and pack more into existing timelines in response to climate change and competitor stances. Sharp's accelerating ambition is to be net zero across Scope 1 and 2 by 2030 and Scope 3 by 2050. Toshiba is also aiming high, with a 97% reduction target across Scope 1 and 2 by 2030. Konica Minolta's 2030 goal is a reduction in emissions throughout the product lifecycle by 60% from fiscal 2005 levels, and it achieved 62% in FY2024. Epson's goals include reducing Scope 1, 2, and 3 emissions by 55% and Scope 1 and 2 by 90% by 2030. Ricoh, Brother, and Xerox are all aiming for 60%+ Scope 1 and 2 emissions reductions by 2030, with HP targeting a 50% reduction across Scope 1, 2, and 3 by 2030. Canon has a 42% 2030 target. Lexmark's ambition is carbon neutrality by 2035.
- **Tighter Scope 1 and 2 goals highlight the work needed around Scope 3.** Strong Scope 1 and 2 emission reduction commitments emphasise the need for accelerated Scope 3 targets because Scope 3 routinely accounts for upwards of 80% of carbon emissions. HP and Xerox's 2040 net zero goals demonstrate Scope 3 commitment, and Ricoh's new 65% Scope 3 reduction goal by 2040 also stands out. Xerox, Sharp, and Brother are committed to 35%, 32.5%, and 30% Scope 3 reductions, respectively, by 2030. Toshiba's goal is to reduce emissions for the use of sold products and services associated with power consumption sold in Scope 3 by 28% by 2030. Lexmark has delivered a 29% reduction in absolute Scope 3 emissions from the use of sold printers against its 2030 goal of 22% per printer. It should be noted that reductions are measured against each vendor's baseline years, which vary.
- **Epson sets the standard for renewable electricity.** By the end of 2023, Epson achieved 100% renewable electricity consumption at all group sites around the world. HP is the closest competitor, with a renewable electricity proportion of 58.8% during 2024, and is reaching towards 100% for business operations in 2025. Ricoh and Lexmark achieved 43.2% and 42% usage, respectively. Sharp made the most progress year-on-year, raising its proportion from a low 5.7% to 24%, which groups it with Brother, Xerox, and Konica Minolta, which report renewable electricity proportions within the 20%–30% range. Canon, at 16.5%, and Toshiba, at 0.85%, report the lowest proportions of renewable electricity. The three vendors with the highest proportions (Epson, HP, and Ricoh) are all members of RE100, which is working to accelerate the transition to 100% renewable electricity by 2050 at the latest. Konica Minolta and Sharp are also members.
- **Environmental impact and lifecycle assessments are now table stakes.** Xerox stepped up a level with a target that 100% of all newly launched products will have lifecycle assessments, and 100% of its portfolio will have lifecycle assessments by 2028. It currently has assessments for 80% of its portfolio. Other notable offerings include HP's Carbon Emission Sync Service, which includes device lifecycle and carbon assessments; Canon's Discovery Assessment Service and Sustainability Audit; Epson's Optimisation Tool, which quantifies the environmental benefits of its heat-free technology; Ricoh's Sustainability Services dashboard; Lexmark's Co2mpute, which provides full lifecycle assessments leveraging a third-party verified methodology; and Toshiba's Encompass Green Report, which analyses the environmental impact of each device, including energy usage and carbon emissions.
- **Rising commitment to data-centric carbon neutrality, offsetting, and avoidance services.** The Verified Carbon Neutrality Service from Xerox stands out because it combines client data with industry benchmarks and offsets emissions through verified carbon credits. HP's Carbon Emissions Sync aims to improve energy efficiency and reduce wasteful printing and supplies usage, and customers can offset remaining emissions through third-party-verified projects. Ricoh provides its Sustainability Optimisation Service and Carbon Balancing Service, which is differentiated because it addresses both carbon avoidance and carbon removal.

- **AI and intelligent automation permeate product innovation.** The 2024 Xerox AltaLink C8200 and AltaLink B8200 Series multifunction printers streamline document workflows through features such as document summarisation, workflow customisation, and adaptive learning. By helping reduce manual errors, they minimise unnecessary output and support more environmentally responsible printing practices. HP Print AI addresses the disparities between on-screen or print preview and the final print when printing from web pages or email. It then analyses content and reformats the page to reduce waste. Canon's latest-generation products use machine learning in the development of firmware algorithms to help the devices achieve a lower environmental impact. Epson's heat-free technology is still a sustainability differentiator, along with its EcoTank printers' and RIPS devices' high-capacity ink tanks and the PaperLab A-8100, which turns used paper into new paper on-site.
- **Advances are still achievable within the mature consumables recycling and remanufacturing area.** In 2024, Xerox introduced four new remanufactured toner cartridge families, and Epson Europe launched an ink cartridge refill initiative. Also in 2024, Brother launched its ink cartridge remanufacturing line at its recycling centre in Wales. Developments are also becoming more nuanced. For example, Lexmark has identified innovative ways to clean, treat, and reuse supplies such as developer rolls and photoconductor drums, while Canon is working to improve the purity of separated recycled resources (iron, nonferrous metals, and plastics) as part of its ambition to make its consumables 100% recyclable or reusable by 2030.
- **Recycling practices should incorporate business models as well as physical components.** Recycling is a core part of green manufacturing, and recycling principles need to be applied at every stage of the lifecycle from design onwards. All vendors undertake parts reuse and post-consumer recycled plastics (PCR) recycling, and more are including metals, too. HP's DesignJet T200 and T600 2025 Edition series is made with at least 40% recycled plastic, and HP Large Format printers include certified recycled metal. Canon started using recycled iron within in its MFPs and printers in 2025. Ricoh's IM Cxx10 series uses over 50% PCR in its frame. In September 2025, Epson added a new dimension with the launch of a leasing programme in which it retains product ownership at the end of the lease to ensure equipment is returned for refurbishment, reuse, or recycling. Ricoh operates a similar leasing model for its MFPs.
- **Remanufacturing and refurbishment activity is rising.** Refurbished and remanufactured products are key to circular practices, so they continue to attract investment, as illustrated by Ricoh Europe's launch of the CE (Circular Economy) series of remanufactured devices in the first half of FY2025 alongside its existing GreenLine programme. Other recent activity includes Konica Minolta's bizhub Refreshed programme, which gives customers in Europe access to affordable, high-quality refurbished bizhub MFPs. Following a successful proof of concept early in 2025, Epson has started rolling out a limited vendor refurbishment programme for larger print products, supported by its Back2Life warranty scheme.
- **HP's Amplify is still the most comprehensive channel programme.** HP continues to develop Amplify, and during 2024, it accelerated the sustainability-centric HP Amplify Impact channel programme, exceeding the goal of enrolling 50% of Amplify partners by 2025. However, through its Sustainability Specialisation Program, Lexmark is expanding its partners' understanding of sustainability, and the programme will advance when Lexmark combines its channel enablement strategy with that of Xerox. Ricoh Europe has moved forward with the creation of a sustainability campaign for partners to introduce the CE remanufactured series and position Ricoh's sustainability offerings.

Quocirca's Sustainability Leaders report complements the Quocirca Sustainability Trends, 2025 report, which analyses how decision-makers view and prioritise sustainability around the print infrastructure.

Contents

Recommendations

Buyer recommendations

- **Assess the availability and transparency of suppliers' environmental data during procurement.** Quocirca's end-user Sustainability Trends study reveals that customers lack the environmental data they believe they require to report their carbon footprint accurately. It also shows that the lack of this data is a core inhibitor to their understanding of the environmental impact of their print activities. Buyers should look for energy efficiency data and third-party ecolabel certifications such as ENERGY STAR, EPEAT, and Blue Angel; data on the proportion of recycled materials in devices; and active promotion and easy use of energy-saving modes. Transparency in the net zero progress of print suppliers and the channel, particularly in areas such as renewable energy usage, supply chain metrics, raw materials, and manufacturing impacts, should be factored into procurement processes because of their impact on net zero commitments.
- **Encourage sustainable practices.** Cloud print services and MPS can encourage or enforce best practices and rules. Duplex, booklet, pull, or PIN printing can help minimise wasteful printing. Intelligent print management tools can ensure the most appropriate device is used for each print job by automatically routing large jobs to lower-cost, more energy-efficient devices and applying eco-settings to print jobs, such as lower-quality print for non-important jobs or full black-and-white printing for jobs that do not require colour. Look for devices with fast warm-up times, deep-sleep and toner-saving modes, low-temperature toners, and refillable ink bottles.
- **Assess the current environmental impact to establish a robust baseline.** Begin by assessing energy consumption, paper use, carbon footprint, and costs across the existing printer fleet. This is often a standard evaluation in MPS contracts, and if it is not, it should become a supplier selection factor. An assessment should focus on 'quick wins' - identifying areas where environmental impact can be easily and quickly reduced - but it must also focus on creating a long-term sustainable environment that can support current and future needs in terms of necessary printing. It is likely that many of the immediate solutions in terms of print and paper reduction are in place, so focusing on a print environment that runs efficiently, has longevity, and allows a circular business model to be established, are now important considerations.
- **Optimise the print environment considering future needs.** The right solution is not a one-size-fits-all one. Organisations of similar sizes and in similar business areas may have entirely different locations and methods of working, and their print infrastructure needs may be completely different. Using data to understand requirements, and matching strategy to those needs, will be more impactful than trying to tap into 'universal truths' in many areas. A better understanding of where inkjet fits in with laser technologies can also help in managing a print fleet's overall sustainability. Although keeping devices for longer while expecting them to do the same or more work is tempting, a newer device designed for a longer lifespan could prove more economical, both financially and environmentally. Remanufactured and refurbished devices may have a role to play here and should be considered within an MPS procurement strategy.
- **Consider energy consumption.** Energy-efficient products that meet local eco-labelling qualifications should be the first port of call when upgrading. Look for devices with fast warm-up times, deep-sleep, and toner-saving modes. Intelligent print management tools can also ensure the most appropriate device is used for each print job by automatically routing large jobs to lower-cost, more energy-efficient printers. Use intelligent print job management to apply eco-settings such as lower-quality printing for non-important jobs or full black-and-white printing for jobs that do not require colour.
- **Think about circularity and the broader impacts of infrastructure, devices, and consumables.** Consider the full environmental impact of each option – for example, ask for details about resource use, waste is created during manufacture, hazardous substances in manufacturing, how much packaging is used, and what steps the supplier takes to mitigate or offset such issues. Realising that a product's use phase may only be a short chapter in its overall life span is an important step in making choices that deliver credible sustainability benefits. It also helps prevent anyone who is scrutinising the user's sustainability credentials from suspecting the organisation of greenwashing.

- **Make use of supplier guidance around integrating AI.** Artificial intelligence offers a suite of options in terms of enhancing sustainability in print operations, including minimising waste, proactively warning of upcoming needs, and improving security; but embedding them gradually is wise. Piloting AI in discrete workflows (e.g. waste reduction or predictive maintenance) before full-scale deployment and supporting the activity with detailed data monitoring and analysis, is likely to be more successful than a wholesale change requiring significant investment and upskilling internally. Suppliers will be able to advise and support on the most appropriate way to introduce AI to the print environment and the process of extending its use more widely without compromising efficiency or security.

Supplier recommendations

- **Collaborate and partner.** Demand is growing for greater transparency in sustainability practices from print manufacturers. A collaborative approach between print manufacturers, ISVs, and channel partners can accelerate sustainability progress and drive meaningful change. By leveraging the unique strengths of this ecosystem, spanning hardware, software, and services, the industry can develop best practices and reframe the sustainability narrative to focus on the intersection of print and digital technologies.
- **Provide channel partners with environmental data.** Channel partners play a critical role in the success of print vendors' sustainability strategies, promoting sustainability practices throughout the product lifecycle and offering end-of-life product take-back and recycling programmes to reduce e-waste.. Partners need clear environmental data from their suppliers, but Quocirca's channel research indicates a sustainability gap between their requirements and what is available. Priority action areas for suppliers include clear and detailed metrics on product lifecycle impact, help with saving customers energy across print fleets, and sustainability-focused deal support and information. There are also calls for data on recycled materials usage, carbon footprint assessment services, and access to carbon offsetting.
- **Draw on sustainability assessments to inform sustainability decisions and educate the market.** Provide sustainability assessment services to uncover opportunities to modernise customers' print landscapes and move towards more expansive assessments that can assess digital services outside the conventional print landscape. Ensure the assessments also deliver sustainability roadmaps for customers to act on.
- **Harness AI throughout the print lifecycle.** AI can be used across the print value chain for design, production, logistics, workflow automation, waste and consumables management, predictive maintenance, and remote management, including augmented reality (AR)-assisted remote assist, to determine the best approach for end-of-life processes. AI co-pilots that adjust printer settings in real time can also improve the end-user experience and quality of outputs while reducing waste and providing a step towards digitisation.
- **Promote remanufactured and refurbished products as sustainable end-of-life options.** Refurbishment programmes retune, repair, and redistribute used products. Remanufactured products are rebuilt from individual components that could be used or repaired or new parts. They are often overlooked, but both contribute to sustainability by prolonging product lifetimes, reducing waste and carbon emissions, and supporting the circular economy.
- **Focus on transparency in sustainability messaging.** It is now a given that every supplier will have a range of sustainable products and services, but buyers are aware that there may be a less positive reality beneath the marketing spiel. Vendors must deliver clear evidence of their own sustainability credentials and communicate transparently about all aspects of how the products and services they offer support sustainable efforts.
- **Make data accessible and help clients to use it.** Customers now hold high expectations for their suppliers, demanding not just efficient products and services, but full transparency around environmental data and measurement. There is widespread agreement that data is essential to track and measure progress as well as inform policies and strategy, but this is still under-exploited. Providing tools to collect all the required data, and education in how best to harness it, will be appreciated, especially if they integrate with other environmental management platforms.

Vendor profile: Sharp

Quocirca opinion

Sharp is positioned as a major player in Quocirca's 2025 Sustainability Vendor Landscape assessment. Sharp has a comprehensive sustainability strategy aligned with its long-term environmental vision, SHARP Eco Vision 2050. The company aims to contribute to the achievement of the UN Sustainable Development Goals (SDGs) by pursuing two key objectives: solving social issues through business and technological innovation and reducing the environmental impact of its business activities through sustainable operations.

Sharp Europe continues to strengthen its sustainability initiatives and remains committed to its Sustainability Practice, however in light of the European Union's plan to implement several key sustainability regulatory changes in 2025, it is further refining its services to ensure the right fit and offering for its customer base, while awaiting updates from the regulatory bodies in Europe. Over the past year it has retained a strong focus on remanufacturing toner cartridges, developing environmentally friendly products, and eliminating plastic from packaging materials.

Targets and progress
Sharp is accelerating its efforts to address climate change with the goal of achieving net zero CO_2 emissions from its company activities by 2030. It has also set a new target of achieving net zero indirect CO_2 emissions (Scope 3) from activities other than its own, by 2050.

Sharp's greenhouse gas (GHG) emissions from business activities in fiscal 2024 were 823,000 t-CO_2, a 39.7% reduction compared to the base year of 2021, representing a 29.9% year-on-year improvement. Sharp has also reduced Scope 3 indirect CO_2 emissions by 30% compared to the base year of 2021.

Sharp offset approximately 148,000 tonnes CO_2 through non-fossil certificates purchased in fiscal 2024.

Renewable energy
Sharp is promoting the use of renewable energy, including the introduction of solar power generation systems and the use of green electricity at its production bases in Japan and overseas. It intends to expand the use of renewable energy and will introduce solar power facilities at its core factories SUKM (Sharp Manufacturing Company of UK) by 2025 and SMF (Sharp Manufacturing France) by 2026.

In fiscal 2024, the amount of renewable energy used was 35,691 million kWh and the utilisation rate of renewable energy in its electricity consumption reached 24%. Additionally, the amount of electricity generated by solar power generation systems was 6.99 million kWh, compared to 4.49 million kWh in fiscal 2023.

SBS (Smart Business Solutions) Europe division, which mainly operates the MFP business, has achieved a renewable electricity usage rate of 69% which includes its factory in France.

Summary
Sharp identifies material issues for promoting sustainable management from the perspective of contributing to the resolution of global social issues and achieving the medium- to long-term growth of the Sharp Group. Its approach considers management policies, medium-term management plan and business strategies; guidelines and principles such as the United Nations Global Compact, SDGs and RBA (Responsible Business Alliance) vision and mission; as well as the opinions and expectations of stakeholders and evaluation results from ESG ratings and rating agencies. Material issues are prioritised based on environmental and social impact significance and financial impact. In addition, Sharp has achieved approximately 70% renewable electricity for its own operations.

Sharp has been operating an ISO 14001-based environmental management system since 1995 and has acquired ISO 14001 certification for all Sharp factories and most of its offices. All Sharp factories also operate ISO 9001, as well as several sales sites. ISO 27001 is partly implemented. The company intends to further accelerate its efforts toward carbon neutrality, promote collaborative efforts with suppliers to reduce GHG emissions throughout the supply chain, and aim for SBTi net zero certification.

Strengths and opportunities

Strengths

- **Progress in achieving sustainability goals.** Sharp is accelerating its efforts to address climate change with the goal of achieving net zero CO_2 emissions from its company activities by 2030. The company is now setting targets for Scope 3 emissions reductions, aiming to achieve net zero in indirect emissions by 2050.
- **Renewable electricity use is rising fast.** Sharp's usage of renewable electricity is rising as it focuses on initiatives such as the introduction of solar power generation systems and the use of green electricity at production bases in Japan and overseas. It intends to expand the use of renewable energy and will introduce solar power facilities at its core factories SUKM (Sharp Manufacturing Company of UK) by 2025 and SMF (Sharp Manufacturing France) by 2026.
- **Carbon neutrality.** Sharp intends to further accelerate its efforts toward carbon neutrality, promote collaborative efforts with suppliers to reduce GHG emissions throughout the supply chain, and aim for SBTi net zero certification.
- **Sustainable product design and provision of product carbon footprint data.** Sharp has extended the life of key component parts to ensure a longer product lifecycle and reduce the number of service interventions. It has achieved 50% PCR in its A4 range and set a new target to have PCR used in 70% of its products by 2030. The company now provides a carbon footprint data sheet with every new product.
- **Remanufactured product line.** Sharp's New Life MFP programme gained traction in fiscal 2024, with a total of 18 European countries collecting hardware products. Hardware collection is mainly carried out through its direct sales channels and dealer channels.

Opportunities

- **Expanding sustainability services.** Sustainability capabilities within Sharp's services offerings are developing, notably the cloud-based Synappx Manage service management platform. As Sharp migrates fully to this platform, this will unify remote management for printers, MFPs, displays, and other future devices from across its portfolio. When combined with Synappx Manage AI analytics, Sharp will be able to improve support for customers' sustainability strategies by providing predictive data on usage patterns, volumes, and power consumption.
- **Build on additive manufacturing pilot.** Sharp has run a successful proof of concept programme using 3D printing to manufacture spare parts at its manufacturing facility in France. This will answer the challenge of regulations requiring spare parts to be available at short notice and for longer time periods. This innovation will reduce the manufacturing cost and environmental impact of spare parts, allowing them to be produced in the region where they are needed.

Sustainability strategy

Sharp's long-term environmental vision - Eco Vision 2050 is based on its basic environmental policy of 'creating an environmentally conscious company with sincerity and creativity', which was established in 1992. Sharp is committed to building a sustainable global future by advancing long-term initiatives across three key areas - climate change, resource recycling, and safety and security, with 2050 as the target year for achieving these goals.

Sharp's Eco Vision 2050 sets out the company's climate change mitigation goals which include achieving net zero CO_2 emissions in its business activities and creating more clean energy than the total amount of energy consumed in its entire supply chain. The company is participating in the Science Based Targets Initiative (SBTi) to underpin its efforts to combat climate change and obtained SBTi 1.5°C certification in March 2024.
Sharp also aims to use no newly extracted resources (excluding those not suitable for recycling from an environmental standpoint) for making products, and to achieve zero final disposal to landfill of waste generated in its business activities. In terms of safety and security, it is committed to responsibly managing chemicals to protect people's health, the natural environment, and ecosystems.

Sharp has established a dedicated Environmental, Social and Governance (ESG) Promotion Department, which plays a central role within its sustainability and green transformation (GX) initiatives, as well as a Sustainability Committee chaired by the President and CEO. This cross-functional body includes senior executives, key departments (environment, HR, procurement), and representatives from business units and subsidiaries. The committee oversees the strategy using a PDCA (Plan-Do-Check-Act) cycle, ensuring continuous improvement and accountability.

Sharp has also declared support for the TCFD (Task Force on Climate-related Financial Disclosures) recommendations and will expand climate change-related information disclosure in accordance with the framework set by the TCFD. Additionally, as a signatory to the United Nations Global Compact since 2009, Sharp continues to support the 10 principles in the areas of human rights, labour, the environment, and anti-corruption. Sharp also shares the vision and mission of the RBA, which it joined in 2021, throughout the entire group.

Product sustainability and circularity

MFPs and printers
Sharp MFPs and printers are designed to minimise carbon footprint and maximise recyclability of components. The company has extended the life of key component parts to ensure a longer product lifecycle and reduce the number of service interventions. For example, the photoconductor and developer unit, which were previously classed as consumable items, have now been designed to last the life of the device under general usage and print volume conditions. All new devices come with detailed carbon footprint data sheets, answering market demand for clear information.

For current and new generation A3 models, the developer has the same lifespan as the main unit, so it will not need to be replaced during the life of the device. The photoconductor unit has a 25% longer lifespan than the previous generation A3 model. As a result, based on average usage, the photoconductor on devices with a print speed of 26-45ppm, will not need to be replaced within five years.

All current generation A3 models are also equipped with an automatic toner cartridge eject feature. This means that the toner cartridges are guaranteed to be completely empty of toner before they can be replaced, eliminating waste and reducing the number of unnecessary shipments of toner cartridges.

New Life refurbished MFPs
Sharp's New Life MFPs are typically devices returned from existing customers when they decide to upgrade. Sharp engineers assess the suitability of each device before they are refurbished to the highest standards of security, quality and performance.

Parts and pallets
Prior to shipping to an end customer, devices are pre-configured at Sharp's European warehouse (Sharp Manufacturing France). Pallets used for the pre-configured devices are taken away from the customer's site and are reused. In 2024, Sharp reused approximately 310 pallets for configured new machines and approximately 1,000 pallets for refurbished machines. Sharp Manufacturing France also collect and reuse the parts from machines damaged during transit or from used machines.

Toner cartridge collection and remanufacturing
Sharp Japan has built a collection network with logistics company Nippon Express for toner cartridge collection. The number of remanufactured toner cartridges shipped in fiscal 2024 was approximately 700,000 units, and the shipment rate of remanufactured toner cartridges in Japan will be approximately 60%. Total shipments as of March 2025 reached 12.7 million units.

In the US, Sharp works with Close the Loop, which handles the toner collection and disposal process. In Europe, Sharp offers toner cartridge collection/recycling as part of the service contract. The total weight of collections across in Europe was more than 1,990 tonnes between January – December 2023. It is planning to launch a toner cartridge remanufacturing business in Europe. Sales are scheduled to begin in the first half of 2026.

In the UK, customers return spent cartridges directly to Sharp's recycling partners free of charge via Royal Mail Business Post collection service.

3D printing for spare parts
Sharp has begun a pilot to manufacture spare parts for MFPs using 3D printing technology. Future expansion of this may require changes in the MFP product design approach to maximise the 3D printing of spare parts.
On-demand printing eliminates unnecessary inventory and final disposal. It also contributes to reducing greenhouse gas emissions in logistics.

Supply chain

Sharp's basic concept, concrete policies and requests to suppliers pertaining to procurement activities are set out in its Basic Purchasing Principles and in the Sharp Supply Chain CSR Deployment Guidebook, which is based on the Basic Purchasing Principles. The policy states that its CSR initiatives, including compliance with laws and social norms and environmental conservation, are one of its procurement policies, in addition to efforts in areas such as the quality, price and delivery of parts and materials.

Additionally, in the Basic Transaction Agreement concluded with business partners, Sharp requires compliance with the Sharp Supply Chain CSR Promotion Guidebook, which aligns with the RBA (Responsible Business Alliance) Code of Conduct.

In collaboration with suppliers, Sharp strengthens environmental preservation activities and promotes green procurement. Suppliers are required to proactively promote environmental preservation and management, to work on environmentally friendly business activities and product development, and to supply parts and materials in accordance with Sharp’s green purchasing guidelines.

Sharp periodically executes supply chain CSR surveys to confirm how well suppliers are carrying out CSR based on the Sharp Supply Chain CSR Deployment Guidebook and to identify, assess and reduce CSR risk in the supply chain. In addition, it may request suppliers to evaluate their own engagement status for each CSR item and area described in the guidebook through a self-assessment questionnaire.

Sharp is also working to reduce GHG emissions associated with transportation. Specifically, it is promoting modal shifts to reduce air transportation, improving loading efficiency, optimising sea routes and landing sites connecting production sites and consumption areas, and switching to parts procurement from suppliers closer to factories, among other initiatives.

Partnerships

- **RE100 – Renewable Energy 100.** Sharp has joined the international RE100 initiative which aims to utilise 100% renewable energy in its operations. Sharp aims to achieve 100% renewable energy use for its business activities by 2030.
- **UN Global compact.** Sharp has been a signatory to the UN Global Compact since September 2009.
- **30by30 Alliance for Biodiversity.** Through participation in this alliance, Sharp will continue to expand its efforts to conserve biodiversity and realise a sustainable society, contributing to the achievement of the 30by30 goal to effectively conserve more than 30% of land and ocean ecosystems as healthy ecosystems by 2030, with the goal of halting the loss of biodiversity and restoring it (nature positive) by 2030.
- **GX-League.** Sharp is participating in the GX (green transformation) League established in Japan in 2022 and promoted by the Ministry of Economy, Trade and Industry.
- **SBTi.** Sharp has submitted its GHG reduction targets to the SBTi team, which have been certified as being scientifically based and in conformance with the Paris Agreement.
- **Responsible Business Alliance.** Sharp joined the Responsible Business Alliance (RBA) in December 2021. Sharp aligns with the RBA's vision and mission and shares these values across the entire group. This alignment will enable Sharp to accelerate its efforts to address global social issues.

- **Responsible Minerals Initiative (RMI).** In conjunction with its membership in the RBA, Sharp has joined the RMI, an international initiative for responsible mineral sourcing, and is actively conducting due diligence activities in its mineral procurement processes.
- **JEITA (Japan Electronics and Information Technology Industry Association).** Sharp has been a member of JEITA since fiscal 2012.
- **Liaison Group of Japanese Electrical and Electronical Industries.** Sharp participates in the Liaison Group of Japanese Electrical and Electronical Industries for Global Warming Prevention which is focused on further accelerating the pace of industry-wide climate change-related action.
- **European alliances.** Sharp Europe has a partnership with Atmoz Consulting a provider of Gold Standard certified climate finance projects. It is also engaged in several partnerships and initiatives across Europe that support its sustainability efforts across key environmental areas.
- **Papercut Grows.** In the UK, Sharp UK has planted 8,292 trees under the PaperCut Grows programme.

Products and services

Sharp hardware is compliant with Blue Angel and Turkish standby energy-saving regulations; RoHS regulations in Europe, Taiwan, China, Vietnam, India and, UAE; WEEE and REACH regulations in Europe; Mercury regulations, European RoHS regulations, EPEAT and Japanese ENERGY STAR Program standards in the US; the Energy Conservation Act, Green Purchasing Act, Industrial Safety and Health Act, and European RoHS regulations in Japan; Thai Green Label, China Energy Saving Certification, China Green Mark, Hong Kong Energy Efficiency Label, Taiwan Green Label and Taiwan Energy Label standards. Devices have also obtained the SuMPO EPD in compliance with ISO 14025, following third-party verification.

New A3 devices

Sharp's new A3 devices launched in October 2025, incorporate 50% of recycled plastic materials. Sharp has also eliminated polystyrene and implemented fully recyclable cardboard packaging. The devices have an up to 13% lower TEC value (26ppm device) and 40% per cent reduction in standby power consumption thanks to improved fuser belt and heater technology. Sharp has also introduced a new balanced operating mode which delivers low power consumption and fast warm-up time for user convenience.

In addition, these new models utilise existing resources such as moulds and parts, which minimises the environmental impact of new moulds, parts manufacturing and spare parts inventory, and uses the same consumables and accessories as Sharp's current models, reducing stock and inventory that needs to be sourced and managed.

Synappx Manage

As part of a global strategy, and starting in the US, Sharp is migrating to a single proprietary platform called Synappx Manage, which provides a mechanism for remote monitoring, management and security by managing devices in the cloud. This will enable Sharp to incorporate multiple products encompassing its range of printers, MFPs, displays and other future devices, unify remote management and provide a consistence service to customers with multiple vertical products.

Through Synappx Manage AI analytics, Sharp could predict potential usage patterns, volumes and power consumption to propose how a customer can optimise usage and settings aligned with their sustainability strategy.

At the end of 2025, Sharp will introduce sustainability/eco-reports to the platform and its long-term strategy is to incorporate other printer brands. Currently, Sharp offers customers with multi-vendor fleets third-party print management solutions such as PaperCut, Y Soft and OptimiDocs.

Synappx Cloud Print

Synappx Cloud Print was launched in November 2023 with sustainability embedded as a core design principle. Developed using an agile methodology, Synappx Cloud Print continues to evolve in response to market needs, ensuring that new features and functionality align with environmental goals and customer expectations.

Users are encouraged to make more sustainable printing choices with on-screen prompts, such as duplex printing and deleting prints if multiple copies are sent by accident. The Sustainability Dashboard also provides users with a sustainability summary which shows them how they rank in terms of sustainability.

Job Accounting II
With Job Accounting II (JAII) (on-premise) Sharp can show customers their usage and environment impact compared against the average usage in the last 30 days. Administrators can also generate an enhancement report adding fields including tree count, CO_2 (grams) and energy (watt-hours) to understand their environmental impact and integrate into their sustainability processes and strategy.

Sustainable MPS
Sustainability is embedded throughout every stage of Sharp's MPS offering. Pre- and post-sales consultants actively support customers with fleet optimisation and proposals always include recommendations to lessen environmental impact.

Carbon footprint assessments
Sharp's new partner, Apsia, conducts regular carbon footprint assessments performed with Carbo. It also has ongoing discussions with Ecotree to offset emissions through reforestation projects and implements a responsible supplier charter.

Carbon Offset Program
Sharp is planning to introduce a carbon offset program for end users and channel partners that gives them the opportunity to offset print-related carbon footprint based upon their usage. This service would be offered within Sharp's MPS.

Channel enablement

Sharp Marketing Japan (SMJ) has built a nationwide service network with partners which provides services on behalf of MFPs installed by retailers. Used toner cartridges can be collected free of charge, and cartridges are delivered to retailers upon request. The team also provides remote firmware upgrades.

Virtual Showroom. In the UK, Sharp is piloting a Virtual Showroom for all its customers and partners to access at any time online to explore all of Sharp's offerings and visualise how they would fit and work in their office environment, without having to visit a physical showroom. Sharp Spain recently introduced a Virtual Showroom pilot across its dealer channel. In November 2025, Sharp Germany will launch a new version of Virtual Plaza.

Remote maintenance. Sharp's latest range of A3 and A4 MFPs offers remote firmware management and updating. Various remote tools (Synappx Manager & SRDM) are also available which allows devices to be monitored and managed remotely by partners.

Sharp Academy. The Sharp Academy provides online learning for the channel, providing information/updates on any new sustainability credentials on Sharp products, where relevant. Dealers are also able to access the Sharp Academy and complete training courses remotely. In 2025, Sharp created a specific Sustainability Training Module and a module focused on the sustainability features in its latest range for MFP products.

About Quocirca

Quocirca is a global market insight and research firm specialising in the convergence of print and digital technologies in the future workplace.

Since 2006, Quocirca has played an influential role in advising clients on major shifts in the market. Our consulting and research are at the forefront of the rapidly evolving print services and solutions market, trusted by clients seeking new strategies to address disruptive technologies.

Quocirca has pioneered research in many emerging market areas. More than 10 years ago we were the first to analyse the competitive global market landscape for managed print services (MPS), followed by the first global competitive review of the print security market. More recently Quocirca reinforced its leading and unique approach in the market, publishing the first study looking at the smart, connected future of print in the digital workplace. The Global Print 2025 study provides unparalleled insight into the impact of digital disruption, from both an industry executive and end-user perspective.

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