Sustainability Leaders, 2024

A review of sustainability initiatives by major print vendors

Sustainability Leaders Report 2024

QUOCIRCA

Executive summary

Print manufacturers and their partners face a complex landscape of rising energy costs, stricter regulations, and growing demands for sustainability from stakeholders and customers. Notable regulations that can impact a global basis include the EU Ecodesign for Sustainable Products Regulation (ESPR), the Right to Repair, and the EU Corporate Sustainability Reporting Directive (CSRD) being phased in for the FY24 reporting period. To address the climate crisis and reduce greenhouse gas emissions (GHGs), the industry must prioritise carbon reduction and commit to ambitious sustainability targets. Print manufacturers are committing to reducing not only their own GHGs but also the emissions resulting from their own supply chains and customers.

While many OEMs aim to achieve net-zero emissions by 2050, several vendors are setting more ambitious targets. HP and Xerox have committed to net-zero emissions by 2040. Lexmark has a 2035 net neutrality target, and Epson targets carbon-negative status by 2050. These targets often reflect the company's overall global operations, not solely the manufacturing of printing products. This acceleration towards earlier target dates is driven by factors such as increased experience in collecting and utilising emissions data. Quocirca expects that these early target dates and terminology differentiators will increasingly be used as competitive differentiators.

There is a clear trend towards increased adoption of renewable energy sources within the industry. Epson is a notable example, having achieved almost 100% renewable electricity usage across all its global sites by 2023. This significant step demonstrates the company's commitment to sustainability and its ability to implement large-scale renewable energy solutions. HP follows in second place, achieving 59% renewable electricity usage in its global operations, a significant step towards its goal of 100% renewable electricity by 2025.

Accelerating the transition to a sustainable print industry necessitates a shift away from the linear 'take-make-dispose' model and towards circular economy principles, leveraging and extending the leasing, reusing, repairing, refurbishing, and recycling services seen within mature managed print services (MPS) models.

Over the past year, print vendors have continued to enhance the environmental credentials of their product portfolio. This includes increasing the use of post-consumer recycled (PCR) materials in devices, improving energy efficiency, and implementing comprehensive recycling programmes for consumables and hardware. A sustainable-by-design approach and lifecycle assessments (LCAs) have become standard practices across the industry. New refurbishment programmes were launched in 2024, such as HP Renew Solutions, offering certified refurbished PCs and printers, further extending the life of devices and reducing electronic waste. Remanufactured product lines from Canon, Lexmark, Ricoh, and Xerox are also available.

The print industry, while making strides in product sustainability, must prioritise providing accurate and reliable environmental impact data to customers. Currently, fragmented approaches and a lack of data standardisation hinder customers' ability to assess the true environmental footprint of their print infrastructure, encompassing hardware (manufacture, delivery, and usage), paper, and consumables. Despite 83% of IT decision-makers in Quocirca's 2024 Sustainability study recognising the importance of environmental data, they are struggling to get what they need from vendors. Print vendors must bridge this gap to empower informed decision-making and drive sustainable practices.

Sustainability assessments have become essential tools for evaluating and improving the environmental impact of printing practices, but the quality and scope can vary significantly between different MPS providers. While some providers focus solely on traditional print environments, others take a broader approach, evaluating opportunities for digitisation and business process optimisation to further reduce environmental impact. A leading offering, launched in September 2024, is the Xerox Verified Carbon Neutrality Service, an MPS offering developed to the ISO 14068 carbon neutrality standard and independently verified. Another notable launch in 2024 was Ricoh's new Sustainability Services Dashboard, developed in partnership with Watershed, which reports on emissions data associated with Ricoh Digital Services.

This report provides an overview of the print vendor sustainability landscape in 2024, exploring how vendors are accelerating sustainability goals across business operations, how sustainability is embedded across products and services through circular programmes, and how the channel is being supported. The

report includes detailed profiles for participating vendors: Brother, Canon, Epson, HP, Konica Minolta, Ricoh, Sharp, Toshiba, and Xerox. Print vendors' sustainability targets are summarised in the Appendix.

Key findings

- **Quocirca's Sustainability Leaders for 2024 are characterised by strong vision and execution across their sustainability strategies and product offerings.** In 2024, all vendors have made progress on their sustainability vision, commitments, and deliverables, raising overall standards across the print industry. The leadership group comprises HP, Xerox, Canon, Epson, Ricoh, and Lexmark, and the major players are Brother, Konica Minolta, Sharp, and Toshiba.

- **Print vendors are accelerating their net-zero timelines and strengthening commitments**. The year 2050 has been the broadly adopted goal to achieve net-zero emissions, but suppliers are bringing target years forward, positioning early net-zero commitments as a competitive differentiator. HP and Xerox, the first to set 2040 as the net-zero target year, have maintained their targets. Lexmark is working towards net neutrality by 2035, while Epson aims to be carbon-negative and underground resource-free by 2050.

- **Vendors are setting earlier interim emission reduction ambitions.** Sharp and Toshiba have set ambitious targets of net zero Scope 1 and 2 emissions by 2030. Ricoh has expanded and accelerated its GHG reduction goals by 10 years, including net-zero Scope 1 and 2 emissions and a 65% Scope 3 reduction by 2040, while Konica Minolta has accelerated its CO_2 emissions reduction target from 60% to 70% by 2030. Epson's targets include a 34% reduction in Scopes 1 and 2 emissions and a 44% reduction in Scope 3 (categories 1 and 11) by 2025. By working with Climate Impact Partners and using the CarbonNeutral Protocol as a guide, Lexmark is progressing towards its 2035 carbon neutrality target. Revised targets and shorter time frames reflect vendors' growing confidence in emissions visibility and their ability to monitor and report performance.

- **Renewable energy targets differ significantly.** All print vendors are increasing their use of renewable electricity, but the proportion and adoption rates vary from under 10% to nearly 100%. Epson leads, having announced in December 2023 that it had transitioned to 100% renewable electricity across Epson sites worldwide. HP has pledged to power 100% of its global operations with renewable energy by 2035, from 59% in 2023. From zero renewables use in 2019, Lexmark has set a target of 80% by 2025 and 100% by 2030. It made significant progress during 2023, rising from sub-10% to 54%. Ricoh has brought forward plans for 100% renewable electricity consumption to 2040, from 33.6% globally in 2024. Epson, HP, Konica Minolta, and Ricoh are members of RE100, the global initiative to accelerate the transition to 100% renewable electricity. Members commit to sourcing 100% renewable electricity for their operations by 2050 at the latest.

- **Sustainability is sparking innovation across commoditised hardware.** Sustainable-by-design approaches that drive innovations to improve energy efficiency and reduce environmental impact are seen in Canon's imageFORCE MFP and Lexmark's 9-Series range. Low-temperature fixing toner and fusing technologies that reduce energy consumption are prime areas for innovation. Canon says its low-temperature fixing toner can reduce power consumption by up to 15%, while Konica Minolta's Simitri V toner reduces the fixing temperature by 15°C, and Sharp's Mycrostoner and low-temperature fusing technology drive down energy consumption. HP's TerraJet toner cartridges are designed for efficient toner use and consume less energy than its predecessor, and Epson's Heat-Free inkjet technology is an innovative example of lower power consumption and reduced waste. Epson continues to develop its dry-fibre paper technology (DFT), which recycles and repurposes fibrous materials into new products, including paper, without using water. It is also deployed within its PaperLab A-8000 paper recycler.

- **The use of recycled materials varies considerably.** Recycled plastic and other recycled components and materials are central to circular economy practices and net-zero achievement. Toner and ink cartridges have high proportions of recycled material. However, rates within printers and MFPs are lower but rising. HP's DeskJet 2855e All-in-One Printer incorporates 60% recycled plastic. Lexmark's 9-Series range achieves 56% PCR plastic, and over 90% of the materials used in its hardware products are recyclable, illustrating the importance of designing for repeated recovery and reuse. Ricoh's IM

C2510 MFP boasts 51.9% PCR, and Konica Minolta's current MFPs comprise up to 54% recycled plastics. Canon is also increasing the use of recycled materials. Its latest imageFORCE C7165 MFP has been built using 30% recycled plastics.

- **Cartridge-recycling programmes are being extended and improved to ease access and encourage take-up.** In 2024, Brother launched a new inkjet cartridge remanufacturing line at its Recycling Technology Centre in Wrexham, North Wales, and it expects to remanufacture over 2 million inkjet cartridges a year once fully operational. It has also reported that it is the first OEM globally to be awarded the revised Blue Angel DE-UZ 177 certification for its toner cartridges. To ease accessibility, Epson has expanded collection options as part of its cartridge-recycling improvement initiative, scheduled for completion by the end of 2024. Lexmark recently added a carbon indicator feature to the online hub for its cartridge and printer recycling and remanufacturing offerings. It provides personalised estimates of the carbon impact and contribution to the circular economy of returned devices. Konica Minolta's Clean Planet Program assures environmentally sound disposal of toner bottles and cartridges, drums, and other used consumables. Collected toner bottles are sent to recycling companies such as Close the Loop so secondary raw materials can be collected, and 87% of the waste is turned into secondary raw materials.

- **Remanufacturing is an increasingly important feature of circular strategies.** Remanufactured devices are rebuilt from reused, repaired, or new parts, comparable to refurbished devices that are returned, retested, and redistributed. Canon added two models to the imageRUNNER ADVANCE ES Range of remanufactured devices in 2024. Its aim to increase the ratio of remanufactured products to total multifunction devices to 5% in 2025 highlights the potential for expansion. Ricoh GreenLine MFPs were the first to receive ENERGY STAR certification. Lexmark Evergreen products use up to 90% reused or repaired parts. Xerox Certified devices meet the standards of newly manufactured Xerox products and reuse up to 95% of machine components by weight.

- **Vendors are enhancing sustainability assessment services and green reporting.** Sustainability assessments have emerged as important tools for evaluating and improving the environmental impact of printing practices and present channel partners with opportunities for additional revenue generation. They provide the data to inform sustainability strategy and action plans (including Scope 3), and sustainability assessment data can be used to support CSRD compliance. Notable offerings include HP's Carbon Neutral Managed Print Services, which help customers reduce their carbon footprint through assessments and offsetting, and the Verified Carbon Neutrality Service from Xerox, which is available to MPS customers and provides carbon footprint assessments, reduction plans, and access to carbon credits. Ricoh's Carbon Balanced Service enables customers to offset unavoidable emissions from pre-use and in-use device and document management phases, including Scope 3. The Sustainability Services Dashboard enables customers to measure, report, and act upon emissions data associated with Ricoh Digital Services, focusing on Scope 3 emissions and data-driven insights from integration with the Watershed enterprise sustainably platform.

- **Sustainability-focused channel programmes are few and far between.** HP has led the charge with Amplify Impact, which aims to maximise sustainable business opportunities for partners. Its extensive partner ecosystem extends across 48 countries, and the programme will be further opened up to distribution partners. Xerox made its 'How Xerox can help customers achieve their sustainability goals' e-learning module mandatory for the Velocity channel in 2024. It is also developing optional learning modules on the circular economy, greenhouse gas emissions, and digital services for 2025. Lexmark is developing channel training and partner sustainability recognition programmes for 2025.

Quocirca's Sustainability Leaders report complements its main [Sustainability Trends, 2024 report](#), which analyses how decision-makers view and prioritise sustainability around the print infrastructure.