

Sustainability Leaders, 2023

A review of sustainability initiatives by major print vendors



Sustainability Leaders Report 2023

Excerpt Report: Lexmark

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Executive summary

Sustainability has long been embedded in the print industry, with circular models that aim to minimise waste and maximise the value of resources already well established. These include recycling programmes for hardware and consumables, the increasing use of recycled materials in products, and hardware that is ‘sustainable by design’ – for instance, designed for longevity and end-of-life recyclability. As the market for sustainable goods matures and customer expectations evolve, some manufacturers are enhancing their remanufactured device portfolios to offer a greater variety of devices and a more complete remanufactured offering.

Print manufacturers have set ambitious net-zero targets, with some, such as HP and Xerox, aiming to achieve net-zero by 2040. Since Quocirca’s inaugural Sustainability Leaders 2022 study, several vendors have deepened their focus on products and solutions to help customers achieve their sustainability goals. Quocirca’s Sustainability Trends 2023 study shows that organisations are placing more scrutiny on their print suppliers, with 70% saying they expect their print supplier to demonstrate that it is reducing its own environmental impact. The majority (70%) of organisations also expect their suppliers to provide sustainable products and services, and 69% say it is important that their supplier helps them to measure the environmental impact of the print infrastructure. Consequently, alongside regulatory pressure, vendors must address customer expectations and differentiate their sustainability-led propositions in an increasingly commoditised market.

However, the market lacks standardisation, and 27% of organisations say the top barrier to operating a sustainable print infrastructure is lack of environmental data about device impact. While energy-efficiency labels, such as ENERGY STAR and Blue Angel, have long been the main accreditations, newer programmes, such as ISO 14001 and ISO 50001, are becoming better known and show the depths of a vendor’s energy sustainability commitments. Beyond energy, vendors are showing their commitments to areas such as mineral usage, waste disposal, and responsible business practices through memberships in groups such as the Responsible Business Alliance (RBA), the Responsible Minerals Initiative (RMI), and the Clean Ocean Material Alliance (CLOMA). While involvement in such initiatives is laudable, this complex and varied landscape can make it difficult for buyers to make direct meaningful comparisons.

Quocirca’s study reveals that vendors are increasing initiatives around recycling, reuse, and remanufacturing. Some are incorporating new energy efficiency technologies such as lower temperature toner fusing, deeper sleep modes, and faster start-up times. When devices with such technology are part of a broader optimised fleet that includes print management solutions to minimise wasteful printing, organisations can take major steps towards reducing environmental impact.

As such, leading vendors are also creating more services for both the channel and end users, with discrete means of carrying out surveys and assessments to help identify areas for improvement across an organisation’s printer fleet. Alongside this, managed print services (MPS) are improving to include greater insights into energy usage and sustainability in a print environment, with ongoing advice offered to users for optimising their fleet.

The direction of travel is broadly positive. The print industry is building on its established focus on take-back, recycling, and reuse schemes, and extending into remanufacturing and circular economy initiatives, as well as services to support impact measurement and continuous reductions. These should resonate with an increasingly discerning customer audience as they seek to achieve measurable results from environmental protection initiatives.

This report provides an overview of the print industry’s sustainability efforts, with focus on accelerating net-zero, corporate sustainability, and enhancing product circularity for customers. It will also highlight some of the key challenges and opportunities that the industry faces in its journey to a more sustainable future.

Key findings

- **Sustainability leaders in the print industry continue to demonstrate a strong vision and commitment to net-zero.** Quocirca's Sustainability Vendor Landscape has identified HP, Xerox, Canon, Ricoh, Lexmark, and Epson as leaders with respect to their sustainability strategy and vision. Initially, many manufacturers were focused on the basic challenge of gaining enough visibility over emissions to set targets, but we are now seeing some of those targets being revised and time frames shortened as impact reduction initiatives gather momentum and companies get better at monitoring and reporting performance. Since Quocirca's 2022 study, Konica Minolta has aligned with the industry and set a target of net-zero by 2050. Lexmark aims to reach operational carbon neutrality by 2035 and full net-zero by 2050. Xerox and HP have maintained their 2040 target, and Canon and Ricoh are still targeting 2050. Epson is targeting carbon-negative status by 2050. We are also seeing more science-based target initiative (SBTi)-approved targets. The majority of vendors have now received validation from the SBTi for their Scope 1, 2, and 3 initiatives. From a reporting perspective, this year more manufacturers provided interim updates on progress toward targets.
- **Circular approaches are well-established in the industry and focus on recycled materials and product life extension is growing.** There is a strong focus on the whole lifecycle impact of devices, and manufacturers are striving to reduce raw materials impacts and end-of-life environmental effects. Remanufacturing and product life extension are solutions to these two challenges, and several manufacturers are enhancing their performance in this area. In April 2023, Konica Minolta announced that it was aiming to make its products from more than 90% circulated resources by 2050. Brother aims to increase the proportion of reused materials in its products to 30% by 2030. Several manufacturers are increasing the PCR plastic content of consumables and devices. On product life extension, examples include Sharp, which has extended the life of key components in its devices by 140%. Additionally, Epson has established an extended warranty and parts replacement programme that extends printer life cycles by up to three years, to a total of eight. Lexmark designs all its devices to last for seven or more years. Meanwhile, Canon continues to work towards greater recycling of toner and inkjet cartridges across EMEA, and is working towards making its B2C and B2B product consumables 100% recyclable and/or reusable by 2030.
- **Sustainability services for customers remain fragmented, but focus is growing.** Quocirca research shows the appetite for sustainability-focused solutions is growing, and manufacturers are starting to respond to this opportunity. All the manufacturers in this report offer some customer-focused sustainability services, but some are more mature and extensive than others. Basic tools include product comparison calculators and carbon calculators, while sophisticated offerings include full consultancy. Examples include HP's Carbon Neutral MPS, Ricoh's European Sustainability Optimisation Programme and Xerox's sustainability-led MPS. From the channel perspective, Epson's multi-vendor comparison tool is proving popular with its partners.
- **Remanufactured hardware product portfolios support circular strategies.** Circular products move away from the traditional linear product creation model of 'take-make-dispose' to a 'make-use-recycle' route. Remanufactured hardware can support carbon footprint and waste reduction goals. As opposed to refurbished products – those that are returned, retested, and redistributed – remanufactured devices are rebuilt from individual components (reused/repaired or new parts). Remanufactured product lines include Ricoh's GreenLine series of MFPs (the first remanufactured MFPs to receive ENERGY STAR certification) and Canon's imageRUNNER Advance ES Range, which provides a reuse ratio of 90%. Lexmark offers Lexmark Evergreen, a remanufactured hardware programme that refurbishes devices in selected regions. The Xerox Factory Produced New range offers devices that have been restored to meet Xerox product specifications and are deemed to be in 'like new' condition. The Xerox Factory Produced New products are upheld to the same ecolabel criteria as newly manufactured products, such as ENERGY STAR and EPEAT.
- **Vendors are deepening channel engagement.** HP is leading the charge with its Amplify Impact partner programme, offering assessment, training, and resources around sustainability. Xerox offers a specific sustainability training module for partners, plus sustainability-focused marketing materials. Lexmark's Evergreen remanufacturing scheme is fundamentally a channel offering in EMEA, with the company providing dedicated support and materials, as well as incentives for partners to participate in the collection of used printers for remanufacturing. Epson's channel-led comparison tools are helping partners articulate

the benefits of its business inkjet devices. However, for many manufacturers, there is room for greater strategic focus on channel support and messaging for sustainability.

- **HP leads in brand perception as a sustainability leader, followed by Canon and Epson.** Among IT decision-makers in the UK, France, Germany, and the US, HP holds the strongest reputation as a sustainability-focused brand. With 35% of respondents rating HP as strong, the company outpaced Canon (33%) and Epson (32%). Xerox and Brother also garnered positive recognition for their sustainability efforts, with 27% of respondents rating them as strong in this area.

Quocirca's Sustainability Leaders report complements its main [Sustainability Trends, 2023 Report](#), which analyses how decision-makers view and prioritise sustainability around the print infrastructure.

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Methodology

This report includes an analysis of public ESG data and statements as published by each vendor. Note that this data is for the whole company group, which reflects the company's global footprint, along with the manufacturing of a diverse range of products, not just the manufacturing of printing products. These all involve different manufacturing processes that can have varying impacts on the ESG data included in this report. Wherever possible, audited data (by either an external auditor or a public ESG body) has been used. Vendors were also invited to complete a detailed survey. Quocirca would like to thank the following vendors for participating:

Brother, Canon, Epson, HP Inc., Konica Minolta, Lexmark, Ricoh, Sharp, and Xerox.

The print ecosystem

The print ecosystem landscape includes printer/copier manufacturers, channel partners and independent software vendors:

- **Printer/copier manufacturers.** Vendors in this category include Brother, Canon, Epson, HP Inc., Konica Minolta, Kyocera, Lexmark, Ricoh, Sharp, Toshiba, and Xerox.
- **Independent software vendors (ISVs).** These provide print management platforms that can eliminate or minimise wasteful printing. Functionality such as pull-printing or rules-based printing can be implemented along with load-balancing to optimise device utilisation. Cloud print solutions can also reduce reliance on print servers and lower environmental costs. ISVs include Kofax, Print Audit, ECI FM Audit, PaperCut, Printix, Process Fusion, Ringdale, and YSoft. Most of these platforms integrate with a broad range of OEM products.

Definitions

Industry-accepted definitions of terms have been used wherever possible. All qualitative statements are Quocirca's own.

Net-zero and carbon neutral

- **Net-zero** is defined as a target of negating the amount of greenhouse gases produced by human activity, to be achieved by reducing emissions and implementing methods of absorbing carbon dioxide from the atmosphere.
- **Carbon neutral** means any emissions of CO₂ into the atmosphere that are not eliminated altogether are balanced by an equivalent amount being removed (carbon offsetting).

Greenhouse gas (GHG) emissions

The term 'greenhouse gas emissions' is used to describe the gases that are emitted into the air by various sources, trapping heat in the earth's atmosphere. This is usually caused by burning fossil fuels for electricity, heat, and transportation. The main gas is considered to be carbon dioxide (CO₂), but other gases, such as fluorocarbons, methane, and nitrous oxides, can also impact global warming. The GHG protocol, which sets the standard for measuring and managing carbon emissions, divides emissions into three separate scopes. Scopes 1, 2, and 3 categorise the different kinds of carbon emissions a company creates in its own operations and wider value chain.

- **Scope 1.** Scope 1 emissions are direct GHG emissions that occur from sources controlled or owned by an organisation – for example, emissions from running boilers and vehicles.
- **Scope 2.** Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling from third-party sources.
- **Scope 3.** Scope 3 includes all other indirect emissions that occur in a company's value chain. This includes all the emissions not associated with the company itself, but that the organisation is indirectly responsible for, up and down its value chain. For example, there will be GHG emissions associated with buying products and services from its suppliers, and with its products when customers use them. As Scope 3

emissions usually account for more than 70% of a business's carbon footprint, it is crucial that companies tackle Scope 3 emissions to meet the aims of the Paris Agreement and limit global warming to 1.5°C.

Science-based targets

Science-based targets provide companies with a clearly defined path to reduce emissions in line with the Paris Agreement goals. More than 2,000 businesses around the world are already working with the Science Based Targets initiative (SBTi).

Zero deforestation

Zero deforestation means no forest areas are cleared or converted, while zero net deforestation allows for clearance or conversion of forests in one area as long as an equal area is replanted.

Quocirca Sustainability Vendor Landscape, 2023

Quocirca's Sustainability Vendor Landscape is a visual representation of the environmental commitments of the major print manufacturers and the breadth and depth of their sustainability-led products and services. Please note that for this 2023 report Quocirca has made some changes to the criteria used in both Strategy and Completeness of Offering sections in order to better represent the way in which sustainability is addressed by the vendor and delivered to the market.

This evaluation is intended as a starting point only. Please note that Quocirca's scoring is based on an unweighted model, and prospective buyers should use this as guidance along with the more detailed vendor profiles to assess suppliers based on their specific requirements.

Strategy

Each vendor has been scored on a range of criteria that encompass the vendor's overall sustainability strategy and commitments, as well as its sustainability strategy and vision for its print business. Reference is made to published ESG data to evaluate sustainability commitments. Please note that published ESG data used is for the whole company group, as vendors do not provide print business ESG data separately.

- **Vision and strategy.** The comprehensiveness of the vendor's sustainability strategy and its evolutionary vision to lower environmental impact across its business.
- **Maturity of offerings.** How developed the vendor's sustainability offerings and services for its clients are.
- **Sustainability commitments.** Commitments to net-zero and progress in reducing Scope 1, 2, and 3 emissions. This includes energy usage, renewable energy usage, total waste output and waste recycled, total water used, and target dates and percentage of reduction in CO₂ or CO₂-equivalent outputs.
- **Circular strategies.** These relate to strategies in relation to areas such as remanufacturing, recycling and product life extension.
- **Market credibility.** The effectiveness of the vendor's initiatives to promote its brand, increase awareness of its sustainability offerings and influence market development. This also includes the clarity, differentiation and internal/external consistency of the vendor's market messages.
- **Sustainability technology innovation.** This considers technology across the hardware, software and services portfolio. It also considers the use of emerging technology such as AI or blockchain to enhance sustainability efforts by improving tracking and verifying emissions.
- **Alliances and partnerships.** This considers environmental partnerships on a global and regional basis and how vendors are collaborating in cross industry initiatives. This also evaluates partnerships with third party independent software vendors (ISVs)
- **Channel strategy.** This evaluates channel enablement strategies through partner programmes that offer training and certification for channel partners to both enhance their sustainability and create stronger sustainability propositions for their customers.

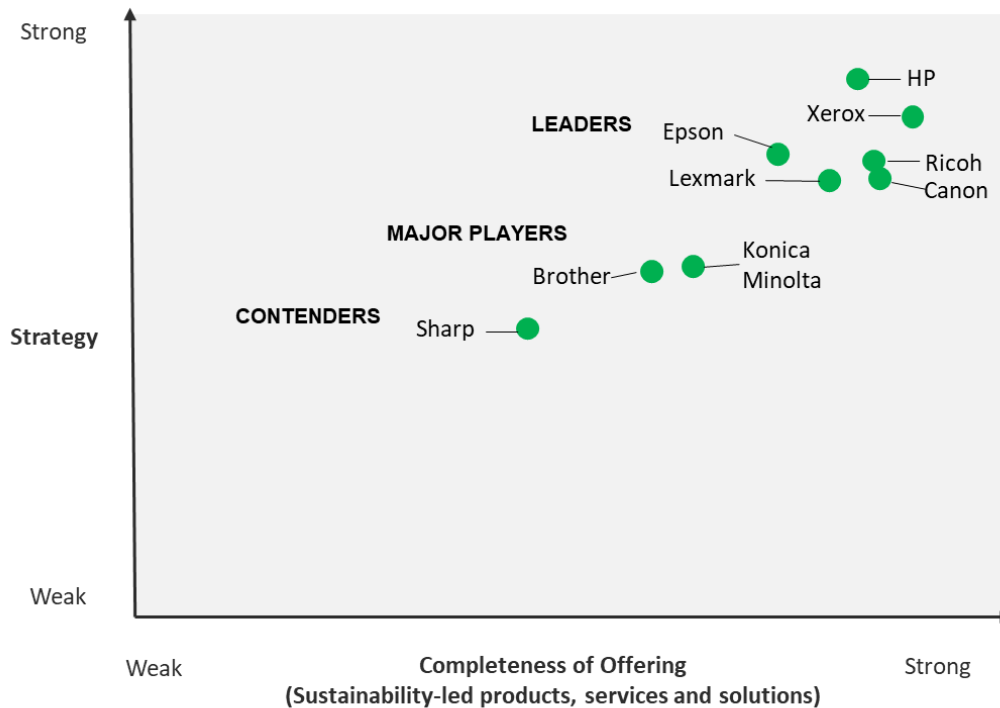
Completeness of offering

This evaluates vendor's approaches to customer enablement and how vendors are helping customers reduce their carbon footprint. This considers the following:

- **Breadth and depth of product portfolio.** This looks at environmental features across the portfolio including energy efficiency, eco-modes, and use of recycled materials. This also considers print management features used to minimise wasteful printing and optimise device utilisation rates.
- **Recycling programmes.** Most countries require vendors to offer equipment take-back at end of life under the WEEE Directive, which was originally mandated in the EU. This criterion looks at vendors' basic and advanced recycling programmes around print devices and consumables.
- **Remanufacturing/refurbishment.** Some vendors offer specific programmes around refurbishment and reuse of print devices, while others focus on complete remanufacturing, often changing more parts than refurbishment and offering greater guarantees and support. Some vendors offer both services.
- **Sustainability services.** This evaluates the breadth and depth of services that encompasses environmental assessments and carbon footprint calculators, MPS offerings, environmental analytics, cloud-based platforms and digital workflow automation capabilities.

Figure 4 represents Quocirca’s view of the sustainability vendor landscape:

- **Market leaders.** Vendors that lead the market in both strategic and depth of product and service offering. Leaders have made significant investments in their sustainability-led product offering with a differentiated sustainability roadmap.
- **Major players.** Vendors that have established sustainability products and services but may lack in vision and a differentiated sustainability roadmap. These vendors may be focused primarily on the channel ecosystem.
- **Contenders.** These vendors have a weaker strategy and sustainability-led product portfolio and may lag in environmental features with a less differentiated sustainability roadmap.



The Quocirca Vendor Landscape is a graphical representation of Quocirca’s opinion of the market and is based on Quocirca’s scorecard methodology. This information is provided as a visual representation only and should be combined with other sources to determine the suitability of any vendor. Quocirca does not endorse any vendor, product, or service. Information is based on best available resources and opinions reflect judgment at the time. All opinions are subject to change.

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Figure 1. Quocirca Sustainability Vendor Landscape, 2023

Vendor profile: Lexmark

Quocirca opinion

Lexmark is positioned as a leader in Quocirca's assessment of the Sustainability Vendor Landscape in 2023. The company has made three significant advances since Quocirca's 2022 analysis. It has gained CarbonNeutral® manufacturer certification for its manufacturing plant in Mexico, significantly increased its use of renewable energy, and received validation from the Science Based Targets initiative (SBTi) for its targets for Scope 1, 2, and 3. As one of the few print-only vendors, the company has one of the most ambitious targets for achieving operational carbon neutrality by 2035. Once it has achieved this, it will work toward its goal of net-zero greenhouse gas emissions by 2050.

In 2015, Lexmark set a goal of reducing energy consumption by 20% by 2025 and achieved a 26% reduction by the end of 2022. It is also targeting an 80% increase in renewable energy by 2025 and renewable energy usage of 100% by 2030, and has already achieved a 43% reduction in Scope 1 and 2 emissions from 2015 to 2022. Reductions have been achieved by various energy efficiency projects that reduce operational energy consumption.

Lexmark is highly focused on sustainable product design, efficient use, and responsible reuse through post-consumer recycled (PCR) plastic content to give products a second life. It is prioritising some key areas. These include 50% reduction in single-use plastics in packaging by 2025, 50% PCR in its product portfolio by 2025 (from the current 40% average), an increase in PCR and reuse to 50% in cartridges and supplies by 2025, and continuing a goal of 100% EPEAT and Energy Star certification within the hardware portfolio.

The company also offers sustainable services and programmes for recycling supplies and equipment. These include the Lexmark Cartridge Collection Program (LCCP), Lexmark Evergreen remanufactured hardware programme, and Lexmark Equipment Collection Program (LECP).

Lexmark products are designed to have minimal effects on the environment throughout their lifespan, including manufacturing and distribution. Devices are designed to last seven or more years, and over 90% of the materials by weight used in its hardware are recyclable.

Quocirca believes Lexmark's comprehensive sustainability proposition is well suited to companies of all sizes. In addition to its broad energy-efficient product portfolio and its focus on device longevity, Lexmark excels in delivering analytic-led insight for customers, enabling them to optimise their print infrastructure to support sustainability objectives. As customers increasingly seek metrics and monitoring to help them report on progress on their sustainability initiatives, Lexmark should be well-positioned to deliver this data.

Sustainability strategy

Lexmark's sustainability strategy is tightly integrated throughout the business, and the company supports each of the United Nations Sustainable Development Goals (SDGs) through its global initiatives. It aims to become carbon neutral by 2035, and continues to prioritise and elevate sustainability with a strong focus on sustainable design, efficient use, and responsible reuse and recycling.

In April 2023, it was awarded the EcoVadis platinum rating in EMEA for the second year running. The EcoVadis platinum rating represents the top 1% of companies worldwide with sustainable business practices. It was also named a 2023 ENERGY STAR Partner of the Year by the US Environmental Protection Agency (EPA) and the US Department of Energy.

Lexmark is aiming to achieve three goals by 2030 – reducing absolute Scope 1 greenhouse gas (GHG) emissions by 27.5% from a 2019 base year, increasing annual sourcing of renewable electricity from 0% in 2019 to 80% by 2025 and 100% by 2030, and reducing absolute Scope 3 GHG emissions from use of sold products by 22% per printer sold. In April 2023, the Science Based Targets initiative (SBTi) validated that the GHG emissions reduction target conformed with the SBTi criteria and recommendations.

Product sustainability and circularity

Lexmark follows a sustainable-by-design approach across its product portfolio. Products are manufactured using materials derived from the most sustainable sources and designed to have minimal effect on the environment throughout their lifespan, including manufacturing and distribution.

The company intentionally designs its devices to last seven or more years – to save resources, reduce waste to landfill, and lower carbon emissions. When devices do reach end of life, Lexmark aims to reuse as much old material as possible.

Additionally, all of Lexmark's devices are EPEAT and ENERGY STAR certified, meaning they meet high standards of energy efficiency, and the company conducts lifecycle assessments to evaluate generation-to-generation improvements.

Lexmark performs life cycle assessments (LCAs) on all branded product families. It currently has two printers independently certified as CarbonNeutral® products by Climate Impact Partners. Customers can also leverage Lexmark's Smart Refresh data-based approach to determine when devices genuinely need replacing, artificial intelligence calculations that eliminate early or unnecessary resupply of consumables, and sensors that continuously monitor device performance. These allow Lexmark to diagnose and enable remote fixing of service issues 70% of the time.

In September 2022, Lexmark launched its first CarbonNeutral-certified devices, which include carbon offsets to minimise their environmental footprint. For the selected devices, carbon neutrality is automatically included free with every purchase. To be certified by Climate Impact Partners, Lexmark has to minimise devices' footprint as much as possible through sustainable design, as well as support independent and verified offset projects that reduce carbon emissions to compensate for the remaining unavoidable impact.

Supply chain

Lexmark was the first printer manufacturer to achieve the ISO 20243 certification for supply chain integrity. It is a member of the Responsible Business Alliance (RBA) and the Responsible Minerals Initiative (RMI), both of which involve tracking its suppliers' corporate social responsibility initiatives.

Lexmark has adopted and actively pursues conformance to the RBA Code of Conduct, supplemented by the Lexmark Supplier Code of Conduct, which defines its expectations for suppliers regarding ethical behaviour, sustainable environmental practices, and protection of the health, safety, dignity, and fundamental rights of all workers. Lexmark-contracted suppliers have committed to complying with a this code of conduct.

All Tier 1 final assembly suppliers have completed a self-assessment questionnaire (SAQ) and received a risk assessment from their response in 2022. In addition, Tier 1 final assembly hardware suppliers worldwide provide progress toward yearly goals, as well as improvements toward environmental and social practices based on these assessments.

Lexmark also publishes the Lexmark Environmental Specification (LPES) annually, and actively communicates current and future restrictions to its supply chain to help educate and enforce.

Recycling

Lexmark has been reclaiming material through its LCCP programme since 1991. Each year, LCCP prevents millions of Lexmark toner cartridges from ending up in landfill. Cartridges returned through the LCCP are disassembled, and components suitable for a second life are used in the production of Lexmark corporate cartridges. Designed and developed for maximum sustainability benefits, the corporate cartridge product line closes the loop during its production through reuse of components returned via the LCCP.

In 2020, the LCCP collected 5,365 metric tonnes of returned cartridges – 96% of materials reclaimed from these cartridges were reused or recycled. All collected cartridges can be remanufactured more than 10 times before being recycled.

The company has set a goal of increasing reuse (rather than recycling) of cartridges and supplies collected through the LCCP to 80% by 2023. (The current total sits at 69%.)

The Lexmark Evergreen hardware recycling programme offers customers the opportunity to utilise devices in a second life. Evergreen devices meet all original requirements and allow the hardware to remain at its highest level of use for an extended time.

The company's recycling centre in Juárez, Mexico is R2 Responsible Recycling Standard certified and CarbonNeutral manufacturer certified by Climate Impact Partners, effective as of October 2022. Certification of its Lexington, Kentucky site is planned for autumn 2023.

Over 90% of materials in Lexmark hardware and 100% of materials in Lexmark cartridges are recyclable. Devices contain up to 60% post-consumer recycled (PCR) content, and cartridges contain up to 21% PCR content. Lexmark plans to increase the average PCR plastic in Lexmark-designed laser devices to 50% by 2025 – progress to date is 40%. It also aims to increase the volume of reclaimed plastic through PCR and reuse it in Lexmark-branded cartridges to 50% by 2025 (currently 41%). The company is also aiming to reduce single-use plastics in packaging by 50% from 2018 to 2025 (33% currently).

Partnerships

- **European Remanufacturing Council (CER).** Lexmark is a founding member of the European Remanufacturing Council, and working towards making changes to policy to make remanufacturing a normal part of a product lifecycle. It is also increasing Europe's remanufacturing sector to over US\$100 billion by 2030.
- **Research and innovation projects.** Following its successful participation in the C-SERVEES project (from the European Union Framework Program for Research and Development), Lexmark has been selected to participate in two additional EU research and innovation projects under Horizon Europe through 2026. The DiCiM project seeks to prove its digital (AI, ML, AR) technologies within the circular economy to accelerate and optimise the processes of resource value management. The CE-RISE project is designed to enhance secondary raw material usage via Digital Passport (DPP) development. CE-RISE will develop and pilot an IT system that identifies optimal solutions for the effective reuse, recovery, and recycling of materials.
- **Carbon Disclosure Project (CDP).** Participation with the CDP helps Lexmark identify new or improved areas of focus within its carbon impact reduction activities.
- **Chemical Watch, DIGITALEUROPE, and ITI.** These memberships provide Lexmark with access to the latest regulations and legal requirements of the electronics industry.

Sustainability services for customers

- **Lexmark managed print services and cloud print management.** MPS optimises print fleets, paper-saving solutions reduce wasted pages, sensors allow for remote fixes, and cloud print management lowers carbon emissions through paper conservation, waste minimisation, and energy reduction.
- **Proactive consumables management through MPS (or OnePrint).** Device usage history and toner levels are monitored to ensure supplies are proactively ordered and delivered when needed. This eliminates local inventories, obsolescence, and cartridges being replaced when they still have toner remaining – all of which have a positive environmental impact.
- **Lexmark OnePrint.** The OnePrint subscription service enables SMEs to realise the sustainability benefits of Lexmark's enterprise-level proactive consumables management offering. Genuine Lexmark toner is automatically delivered to the customer's door only when needed. Lexmark OnePrint includes free and easy recycling.
- **Predictive service and support.** Lexmark devices are designed to require as little servicing as possible. The vendor uses emerging technologies to eliminate IT burden, minimise downtime, and achieve fewer on-site maintenance visits, reducing fuel usage and transport emissions in the process. The use of sensor-based

algorithms that anticipate and correct disruptions reduces IT interventions and eliminates on-site service visits for over 70% of issues. Additionally, through collection of more than 100 data points, its on-site service model boasts a 94% success rate on correct first-time diagnosis.

- **Smart Refresh programme.** Lexmark employs AI/ML/DL as part of its innovative smart refresh lifecycle management programme, which uses performance and usage data to replace only the printers and MFPs in a customer's environment that are truly at the end of their useful life. The programme enables devices to be in use for an extended period, beyond the industry average. Customers can save time and money and reduce their carbon footprint by evaluating the print ecosystem performance at the device level, regardless of how long each device has been used.
- **Environmental impact assessments.** Lexmark assessments deliver environmental impact estimates to showcase the sustainability benefits customers will achieve by using Lexmark ENERGY STAR-rated devices to reduce energy consumption; reducing the number of devices in a fleet to use less energy and require fewer new manufactured products; consolidating single-function printers, faxes, copiers, and scanners into one multifunction device to use less energy and require fewer new manufactured products; using devices with high-capacity consumables with a 100% no-landfill policy with free recycling; and reducing the number of pages printed to consume fewer trees and avoid the carbon impact from the paper production process.
- **PrintReleaf.** As an authorised PrintReleaf dealer, Lexmark offers reforestation services to MPS customers. PrintReleaf measures a customer's paper consumption and automates equivalent certified reforestation across a network of global forestry projects.
- **Lexmark IoT Solutions.** Adjacent solutions, including the Lexmark Optra IoT Platform and Optra Edge, offer the same environmental benefits as in Lexmark's traditional MPS business. Advanced technology connects device data from the field, manufacturing line, service history, engineering systems, and more to rapidly resolve customer issues and significantly reduce on-site service calls. In addition, active device monitoring delivers actionable intelligence about device usage, with recommendations for improvements to optimise asset lifecycle management and drive greater output efficiency.

Channel programmes

Sustainability messaging and education are included in all broad channel partner meetings, with the goal of enabling its partners to have meaningful sustainability conversations with their customers. In 2023, Lexmark held partner events for its Latin American, US, and EMEA channel partners. Training material covers Lexmark's overall corporate sustainability strategy, goals, results, and targets.

The Evergreen programme for remanufactured products is fundamentally a channel offering in EMEA. Lexmark provides partners with dedicated support and materials, as well as incentives to participate in collecting used printers for Evergreen.

Lexmark also gives channel partners access to a range of MPS service solutions through the Lexmark MPS Express offering. Lexmark MPS Express enables channel partners to deliver enterprise-level automated, just-in-time supplies replenishment, device status monitoring, and predictive service.

Buyer recommendations

End-user organisations should take the following steps to understand and minimise the environmental impact of their print infrastructure. Beyond evaluating the sustainability credentials of a supplier, organisations should ensure that any managed print service supplier can create a sustainable print environment.

1. **Assess the current environmental impact.** Begin with assessing energy consumption, paper use, carbon footprint, and costs across the existing printer fleet. This is often a standard evaluation in managed print service (MPS) contracts. An assessment should focus on identifying areas where environmental impact can be easily and quickly reduced, and recommend a balanced deployment of hardware and software to decrease use of energy, paper, and other consumables. In addition, consider the product's environmental impact – for example, ask for details about its resource use, whether waste is created during its manufacture, whether it uses/creates hazardous substances, how much packaging it uses, and what steps the supplier takes to mitigate or offset such issues.
2. **Optimise the print environment.** Redesigning the print fleet with fewer devices will further reduce energy use. MPS can encourage or enforce best practices and rules, such as duplex or booklet printing, further eliminating paper waste. As hybrid working beds in, consumer-grade printers need to be included in an organisation's overall policies and procedures. Better understanding of where inkjet fits in beside laser technologies can also help in managing a print fleet's overall sustainability. Pull or PIN printing can minimise wasteful printing by saving jobs on a virtual print server until users log in at the print device.
3. **Save energy.** Consider energy-efficient products that meet eco-labelling qualifications, such as ENERGY STAR, EPEAT, Blue Angel, or Nordic Swan. Over the years, the US Environmental Protection Agency (EPA) has strengthened energy efficiency requirements so certified models are 30% more efficient than standard models. Look for devices with fast warm-up times and 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 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.
4. **Enable digital transformation.** Reducing paper waste through digitisation and rules-based printing can reduce financial and environmental costs. Smart MFPs can operate as sophisticated document-processing hubs that allow users to scan documents and then store and share them digitally either on-premises or in the cloud. This usually includes full logging of activity, which, when allocated to individual users via integration into enterprise directories and policy engines, can help create audit logs and identify wasteful users or groups. Digital transformation minimises inefficient and costly paper use, while enhancing security and maintaining a full audit trail.
5. **For recycling, think beyond the numbers.** Consider how effective existing approaches are for recycling paper, ink/toner cartridges, and printing devices, and set recycling guidelines. Look for providers that offer a take-back programme, with stated processes that exceed the bare minimum dictated by the likes of the EU's WEEE directive. Switching to recycled or sustainably sourced paper, such as Forest Stewardship Council (FSC) certified, can also lead to considerable environmental savings.

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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