

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.

Contents

Executive summary	2
Key findings	3
Methodology.....	6
The print ecosystem.....	6
Definitions	6
Quocirca Sustainability Vendor Landscape, 2023	8
Vendor profile: Xerox	10
Buyer recommendations.....	14
About Quocirca	15

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.

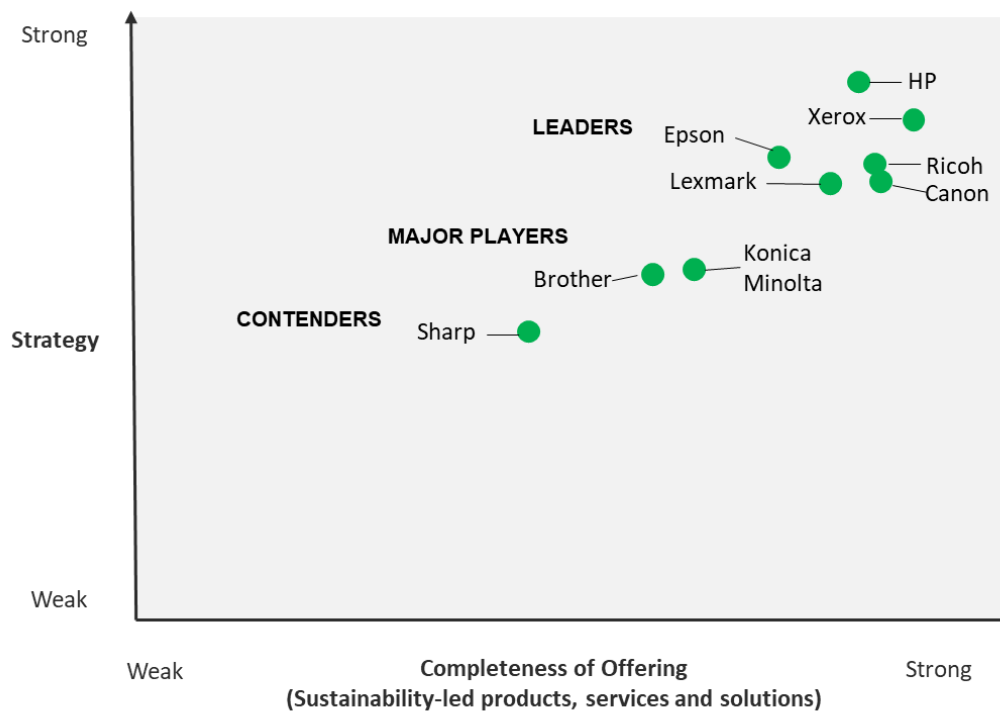
Completeness of offering

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.

© Quocirca 2023

Figure 1. Quocirca Sustainability Vendor Landscape, 2023

Vendor profile: Xerox

Quocirca opinion

Xerox is positioned as a leader in Quocirca's assessment of the Sustainability Vendor Landscape in 2023.

Several factors place it in a strong position to support customers' sustainability goals. These include a strong heritage in supporting circular economy principles, an enhanced sustainability-led product and services portfolio, its augmented reality (AR) remote service platform (CareAR), and a deeper focus on sales enablement for its direct and channel partner sales force.

As well as a comprehensive sustainable technology portfolio of hardware-efficient devices (with increasing use of recycled materials), Xerox has among the broadest capabilities around sustainability-led managed print services (MPS). In partnership with PrintReleaf, Xerox offers a carbon offset programme, as well as in-depth environmental assessments and advanced analytics to help customers reduce the environmental impact of their print infrastructure.

Xerox particularly excels in the breadth and depth of its digital workflow solutions portfolio. This enables customers to optimise paper-based processes and achieve sustainability goals. Examples of such solutions include Xerox Workflow Central and Xerox Accounts Payable Services.

Organisations accelerating their carbon footprint reduction goals through paper usage reduction should evaluate Xerox's broad MPS, content management, and process automation software and services offerings.

Sustainability strategy

In 2021, Xerox fast-tracked its net-zero goal by 10 years, establishing 2040 as its new goal year. The company plans to achieve net-zero emissions through projects that improve operational efficiency, create new technology innovations – one example of which is CareAR, which replaces a technician driving to a customer site and the associated greenhouse gas (GHG) emissions – and neutralise residual GHG emissions through carbon compensation mechanisms.

The company included ESG in the compensation criteria for its senior management three years ago, and this year extended ESG metrics to all bonus-eligible managers to further ensure its employees are incentivised to drive sustainability goals around reducing greenhouse gas emissions, a balanced workforce, and workplace safety. It also launched net-zero training for employees and has included climate-related risks in its Enterprise Risk Management programme.

Xerox established its first GHG reduction goal in 2003 and eliminated 320,000 tonnes of CO₂e between 2002 and 2016. In 2016, it set a new target to reduce Scope 1 and 2 GHG emissions by an additional 25% by 2025, which it achieved by the end of 2019.

Using 2016 as the baseline year, the company is now focusing on achieving an overall 25% reduction in energy use by 2025 – in 2022 it recorded a 34.8% reduction, reducing its Scope 1 and 2 emissions by at least 60% by 2030 (with 2022 progress at 46.4%) – this will result in an 85% reduction compared to the company's original 2002 baseline year. For Scope 3 emissions, Xerox is targeting a 35% reduction by 2030. (In 2022 it achieved 34.6%.) Targets for all three Scopes have received approval from the Science Based Targets initiative (SBTi).

Product sustainability and circularity

Xerox hardware and supplies are designed and manufactured to be reused/remanufactured/recycled. The company selectively chooses parts, designs for efficiency in operation, and seeks to extend the life of parts through reuse.

Product design is governed by global regulations, Design for Sustainability, and the Xerox Environmental, Health, Safety & Sustainability (EHS&S) standards and policy.

Lifecycle thinking is integrated into product and service development. Xerox has lifecycle assessments (LCAs) for approximately 74% of its products, and has committed to increasing the number of LCAs across its portfolio. The company continues its focus on lowering its devices' carbon footprint, and all eligible models meet EPEAT, Blue Angel, and ENERGY STAR requirements when placed on the market.

The latest-generation printers and multifunction printers are manufactured using between 10 and 40% post-consumer recycled (PCR) plastic content. Toner is engineered to melt at lower temperatures to be more energy efficient and easier to de-ink, making printed paper more recyclable, and newly marketed Xerox toner cartridges include up to 39% reclaimed plastic.

In support of the circular economy, preserving natural resources, and reducing waste, Xerox has a 100% landfill avoidance goal and operates take-back programmes for equipment and supplies, so they can be reused and/or recycled.

Products are designed with a high level of commonality, which enables Xerox to remanufacture equipment, toner cartridges, and certain customer-replaceable units and spare parts. In 2021, it remanufactured approximately 10,740 office devices, diverted 8,200 metric tonnes from landfill, and recaptured over 4.6 million cartridges for reuse. It has committed to expanding its remanufacturing offerings and increasing availability across product families and geographies.

Xerox's remanufactured equipment offering includes its Certified Previously Owned (CPO) and Factory Produced New (FPN) product lines. Both CPO and FPN products reuse up to 95% of the components by weight, without compromising quality or performance, including environmental certifications. Remanufactured consumables contain an average of 90% reused parts.

Additionally, Xerox has collaborated with the US Environmental Protection Agency (EPA) to define standards, introducing ENERGY STAR criteria for remanufactured products and developing professional imaging products criteria.

Supply chain

Xerox joined the Responsible Business Alliance (RBA) in 2008 to strengthen its approach to managing corporate social responsibility across the supply chain, and has adopted the RBA Code of Conduct as its Supplier Code of Conduct. In 2023, it became a member of the UN Global Compact, further underscoring its commitment to behaving responsibly as a corporate citizen.

The company requires suppliers to participate in the Xerox Compliance Program, performs risk assessments, and includes terms and conditions that require suppliers to represent and warrant their compliance with all applicable laws and regulations for the sale of goods/materials to Xerox. Suppliers receive an annual reminder of their contractual obligations.

Xerox purchasing agents operate under the socially responsible purchasing policy that gives preference to those suppliers and goods/services that meet voluntary standards such as ENERGY STAR, EPEAT, and ISO 14001 certification. Xerox is also working to achieve increased engagement from suppliers, including sharing of GHG emission data and seeking their commitment to carbon-neutral and/or net-zero goals.

Recycling

Xerox sends end-of-life equipment to Responsible Recyclers (R2)-certified electronic recyclers. Devices are stripped to capture usable parts and components, recyclable materials (such as plastics and copper wire), and materials requiring special disposal services, such as printed wire boards, batteries, and lamps. The remainder is then sent to an industrial reclaim facility. Used spare parts returned from the field by its service technicians are also included in this reuse stream.

The company diverts millions of pounds of used supplies from landfill every year through its Green World Alliance supplies take-back programme. Developed by Xerox in the 1990s, the programme, which operates in 35 countries worldwide, is key to earning EPEAT registration for its devices and a critical component of achieving the company's net-zero by 2040 goal.

In 2021, over 4.6 million cartridges, toner containers, and other used supply items (2,000 metric tonnes) were returned, and more than 1.9 million Xerox toner cartridges were manufactured using recovered cartridges.

Partnerships

- **UNFCCC's Race to Zero and SBTi's Business Ambition for 1.5°C campaigns.** Xerox has aligned its climate mitigation targets with the most ambitious aim of the Paris Agreement, and is also part of the DOE Better Climate Pledge, which sets carbon reduction targets and encourages solution sharing across major US companies.
- **ENERGY STAR programme.** Xerox has a long history of partnering with the EPA to drive energy efficiency in imaging equipment, and was named an ENERGY STAR Partner of the Year for the last three consecutive years, achieving 'Sustained Excellence' status.
- **Ecodesign for Sustainable Products Regulation.** Xerox is a member of EuroVAPrint and Digital Europe, and participating in development of the Ecodesign for Sustainable Products Regulation, including the Digital Product Passport.
- **Responsible Business Alliance (RBA) and Responsible Minerals Initiative (RMI).** Xerox has been a member of RBA since 2008 and adopted the RBA Code of Conduct as its supplier code of conduct.
- **EPEAT (United States).** Xerox participates in the Electronic Product Environmental Assessment Tool (EPEAT), a voluntary standard for product ratings that measures the environmental impact of electronics products.
- **Task Force on Climate-Related Financial Disclosure (TCFD).** Xerox has supported the TCFD framework since 2020.

Sustainability services for customers

- **Xerox Reforestation.** Xerox was one of the first vendors to partner with PrintReleaf to administer reforestation services for MPS clients. It also partners with PrintReleaf to offer Xerox Carbon Offset Services, which allows customers to purchase carbon credits from certified carbon offset projects worldwide. Both Xerox Reforestation and Xerox Carbon Offset Services are automated by a direct feed of page volume between Xerox Services Manager and PrintReleaf. PrintReleaf then reverse-calculates how many trees were required and how much carbon was emitted for the paper consumed.
- **MPS.** Xerox MPS helps customers reduce energy use and emissions, paper consumption, and waste. Analytics can show the current environmental and cost impact of a customer's printer fleet and compare it to an optimised future state. Xerox is also developing a new MPS sustainability dashboard that will quantify customers' greenhouse gas emissions associated with the products and services within their MPS contract. The dashboard will be in accordance with industry standards, and is expected to be available 1H2024.
- **MPS Advanced Analytics.** Xerox's service delivery team uses the MPS Advanced Analytics Sustainability and Insights Dashboards to determine sustainability impacts for any location, region, and time frame. This information is used to track sustainability progress with clients during quarterly business reviews. MPS Advanced Analytics also has a beta version of User Analytics. Currently, the dashboard shows how changing the percentage of two-sided printing can affect sustainability metrics. This dashboard will be expanded with other 'what-if' insights in 2H2023.
- **MPS Renewal Advisor Tool.** Xerox has established a methodology that determines remaining useful life based on factors such as service history, age, usage, and technology obsolescence. By assessing a fleet using this data, it can recommend retaining an optimised set of existing equipment. Devices are designed to be upgraded with the latest security and digital transformation software, allowing them to remain relevant and useful for longer periods of time.
- **Environmental Monitoring.** IT services through Xerox's Managed Services Offerings can help organisations monitor and manage environmental factors to improve sustainability efforts. This can include deploying sensors, IoT devices, and data analytics platforms to collect real-time information on energy usage, air

quality, water consumption, and other relevant environmental metrics. The data can be used to identify areas for improvement and optimise resource utilisation.

Channel programmes

- **Regular events.** Events such as Xerox's annual partner conference and monthly partner marketing council provide updates on related issues, including Ecolabels for energy-efficient products, how products and services and efficient workflows help their customers with Scope 2 reduction in electricity consumption, and development in legislation such as the Corporate Sustainability Reporting Directive (CSRD).
- **Training.** Xerox has created a training module enabling salespeople from accredited channel partners to increase their sustainability knowledge, as well as their ability to articulate what Xerox is doing and how it can help customers operate more sustainably. The company also offers net-zero training, designed to educate and raise awareness of climate change and Xerox's net-zero roadmap and 2040 goal.
- **Services.** Partners are encouraged to promote the Xerox Reforestation Service (PrintReleaf training is also available) and Xerox Carbon Offset Service, and utilise MPS Advanced Analytics to monitor MPS environmental impact across their customer base.
- **MPS-API.** The MPS-API enables channel partners to automatically link their MPS clients' volume to PrintReleaf so they can provide automated reforestation and carbon offset services. Xerox provides channel partners with sustainability-focused marketing materials to sell MPS services to their clients.
- **Tools.** Other tools available to partners include the Rapid Assessment Tool, which helps partners optimise customers' print infrastructure to rebalance or reduce devices and switch to more energy-efficient models that can result in substantial energy savings. This also reduces carbon emissions from electricity to support Scope 2 impacts, and with fewer devices needed to support work teams, carbon emissions are reduced to support Scope 3 impacts. The company also offers the Workflow Mapping Tool, which helps partners assess and optimise document workflows by mapping current processes, and then identifying the time, cost, and sustainability impact involved with each step. In designing the future state, partners can look for areas to streamline to better align with sustainability goals.
- **Partner Marketing Kits.** These contain customisable collateral, banners, videos, social media, thought leadership, and more. Xerox also has Partner Event Kits to enable its indirect channels to hold virtual and in-person events. It also facilitates virtual events on sustainability for and with partners and their customers.
- **CareAR.** Xerox is also currently enabling its channel partners to provide device support with CareAR. This will empower more organisations to reduce technician travel by increasing remote solve rates with CareAR Assist.

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.

For more information, visit www.quocirca.com.

Usage Rights

Permission is required for quoting any information in this report. Please see Quocirca's [Citation Policy](#) for further details.

Disclaimer:

© Copyright 2023, Quocirca. All rights reserved. No part of this document may be reproduced, distributed in any form, stored in a retrieval system, transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without express written permission from Quocirca. The information contained in this report is for general guidance on matters of interest only. Please note, due to rounding, numbers presented throughout this report may not add up precisely to the totals provided, and percentages may not precisely reflect the absolute figures. The information in this report is provided with the understanding that the authors and publishers are not engaged in rendering legal or other professional advice and services. Quocirca is not responsible for any errors, omissions, or inaccuracies, or for the results obtained from the use of this report. All information in this report is provided 'as is', with no guarantee of completeness, accuracy, timeliness, or of the results obtained from the use of this report, and without warranty of any kind, express or implied. In no event will Quocirca, its related partnerships or corporations, or its partners, agents, or employees be liable to you or anyone else for any decision made or action taken in reliance on this report, or for any consequential, special, or similar damages, even if advised of the possibility of such damages. Your access and use of this publication are governed by our terms and conditions. Permission is required for quoting any information in this report. Please see our [Citation Policy](#) for further details.