

Whitepaper

What Your Printer Wants You to Know: A Business Guide to Smarter Print Decisions



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Meet Your Office MVP

You've already got the hardest-working teammate in the office...and no, it's not Steve from finance.

It's the machine quietly handling your reports, invoices, labels, sign-in sheets and forgotten birthday posters without a fuss.

In a hybrid world where everything's supposed to be smarter and faster, your multifunction printer (MFP) should be doing more than just printing. It should be saving you time, cutting waste, boosting security, and helping your teams work better—without extra admin or IT headaches.

This guide cuts through the jargon and tells it straight: what really matters when choosing print tech, what to look out for, and how to make the most of what you've got.

The office copier is a communications platform, and much more than just a multifunction printer.

Ricoh Laser vs Inkjet,
DataMaster Labs,
September 2024



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The report

Drawing on comprehensive testing conducted by DataMaster Labs—an independent laboratory that has performed impartial evaluations since 2009—this report offers detailed insights into the real-world performance differences between laser and inkjet print technologies.

The findings are based on rigorous evaluations across several key areas, all performed under real-world conditions. **A3 multifunction printers (MFPs)** in the 40-49 ppm range from various brands were **tested side by side** to ensure reliable and relevant results.

The areas covered are:



Productivity and speed



Print quality



Environmental and operational efficiency



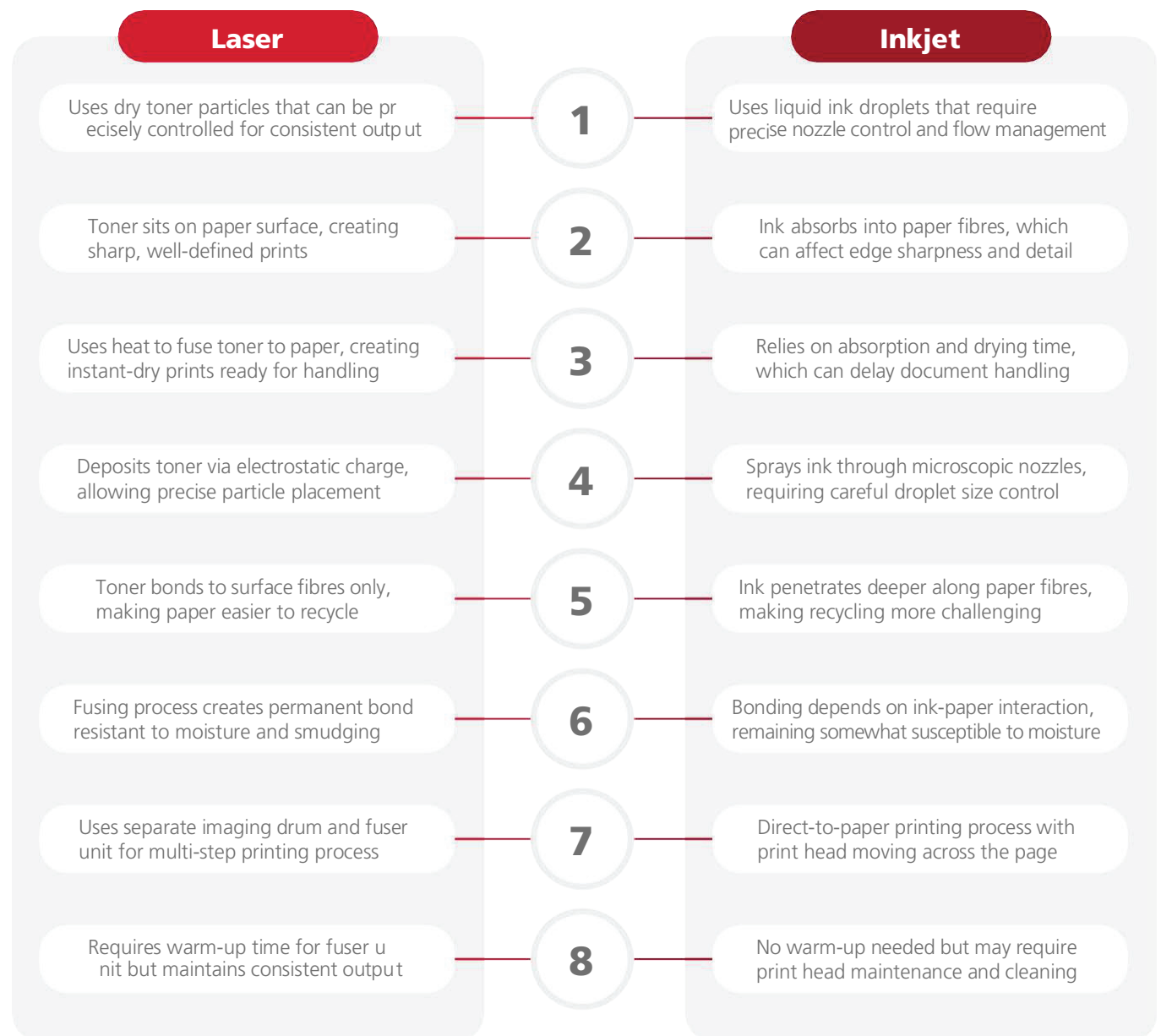
Handling and usability

Our goal is simple: to give you clear, data-driven comparisons that cut through marketing claims and help you make an informed decision.

Beyond the technical comparisons, we'll also explore how today's print solutions can become powerful business tools that connect workflows, protect information, and drive efficiency.

Laser Vs Inkjet: Why Your Printer Picks Sides

The biggest difference lies in how they actually print. Laser printers use a dry powder called toner, which is precisely positioned and heat-fused onto the page. Inkjet printers, in contrast, spray tiny droplets of liquid ink onto the paper.



This difference—dry toner versus wet ink—influences everything from print quality and speed to reliability and cost. As DataMaster’s independent research shows, this has significant impact on business performance, especially in today’s hybrid work environments where consistent, professional output is essential across all locations.

Speed, Simplicity, and Sanity: What Your Printer Should Really Be Doing

When it comes to print technology, productivity and speed are more than just technical specifications—they're critical factors that directly influence operational efficiency, team satisfaction, and ultimately, your bottom line.

Here's how laser and inkjet printers actually perform in real life scenarios:

Scenarios	Laser	Inkjet
Colour output	Vibrant colours and dense solids on standard paper, achieving 91/100 in testing*	Good colour range scoring 76/100*, but requires specialised paper for best results
Text and line quality	Excellent fine line reproduction (4/5)*, with consistently sharp text at all sizes	Adequate for standard text (3.5/5)*, with some variance in very small fonts
Solid areas and graphics	Even, consistent coverage across large colour areas	Can show subtle banding or uneven coverage in large solid areas
Document durability	Smudge-resistant and water-resistant immediately after printing	May require drying time and can be susceptible to water damage
Document handling	Efficient stacking and processing for high-volume environments	Can take up to 10x longer to organise high-coverage double-sided prints
Print speed consistency	Maintains rated speed (45 ppm) across document types, regardless of complexity	Speed drops significantly for complex documents, sometimes taking up to 141% longer to complete
Duplex (double-sided) printing	Seamless double-sided printing at full speed, with no pause between sides	Requires pause for ink drying, especially on high-coverage documents, extending print time
High-volume workload performance	Maintains 97% of rated speed when processing 15 simultaneous print jobs	Performance drops to just 62% under similar multi-job scenarios
Print job processing	Immediate processing and efficient job queuing in multi-user environments	Slower job processing, with potential bottlenecks during high-demand periods
Operational consistency	Predictable performance across various document types and print volumes	Variable performance that can fluctuate based on document complexity and coverage

* All print quality scores sourced from DataMaster Labs independent testing, September 2024.

These findings reveal significant performance differences between laser and inkjet printing, with variations in document quality, speed, and operational consistency that extend far beyond basic specifications.

While inkjet technologies continue to evolve, laser printing remains the preferred solution for businesses seeking predictable, high-quality output in professional environments.

The Business Impact

While print technology performance is crucial, its true value emerges from its impact on business operations. Laser print technology benefits extend far beyond technical specifications with:



Time savings

Faster, consistent print speeds mean less time waiting for documents and more time focusing on meaningful work.



Improved productivity

Reliable and speedy printers reduce bottlenecks, allowing teams to work efficiently without disruptions.



Cost efficiency

Reduced waiting times translate to fewer hours lost to printer-related inefficiencies, improving overall workplace productivity and cutting hidden costs.



Professional output

High-quality, consistent results ensure professional-grade materials that reflect positively on your business.

These practical considerations transform print technology from a mere operational tool to a strategic asset that can enhance workplace efficiency and professional presentation.

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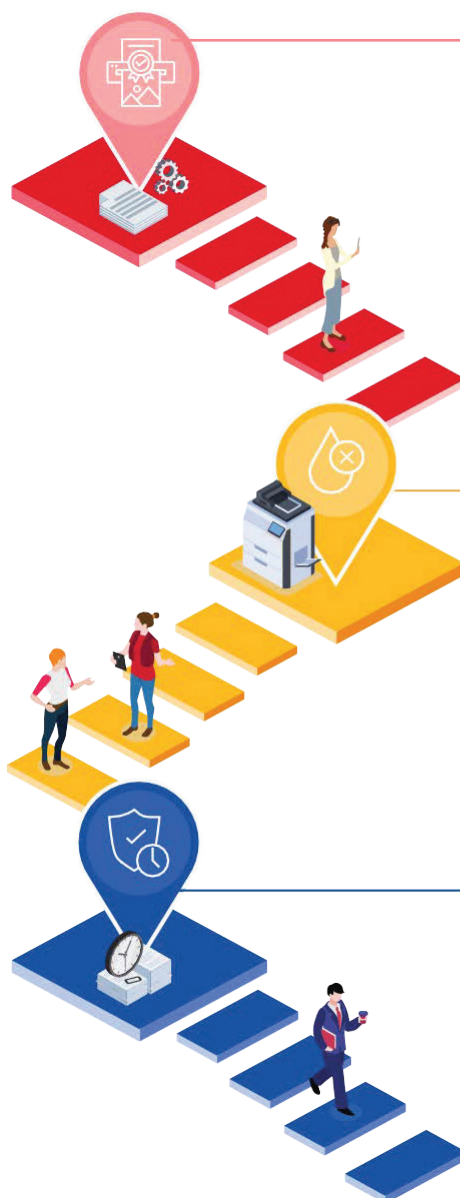
Waiting on slow prints is the silent productivity killer. Your MVP keeps the work flowing — so you can focus on the big stuff.”



Print Quality: The Difference Your Business Can See

Print quality is more than just sharp text and vivid colours—it's a direct reflection of your business's professionalism and attention to detail. Every document that leaves your printer, from client proposals to internal reports, needs to maintain consistent quality that reinforces your brand's standards.

DataMaster Labs' independent testing reveals the key differences between laser and inkjet technologies in delivering this critical business requirement. Here's what those differences look like:



Sharper with more reliable output

- ✓ **Laser:** Delivering exceptional print quality with a 91/100 overall score in testing*, laser printers excel at producing sharp text and vibrant colours on standard paper. Their strength lies in consistent results across all document types, from detailed graphics to everyday text.
- ✗ **Inkjet:** Inkjet printers can produce quality colour prints, especially when paired with specialised paper, achieving a score of 76/100*. Their colour reproduction can be quite striking, but both vibrancy and consistency rely heavily on using the right paper.
- ★ **Benefit:** Laser technology ensures your business documents maintain professional quality regardless of paper type or content, delivering confidence in every print job.

No smudging or bleeding

- ✓ **Laser:** Using a toner-fusion process, laser prints emerge completely dry and smudge-resistant. This immediate durability means documents are ready for handling, filing, or distribution the moment they leave the printer.
- ✗ **Inkjet:** Modern inkjet technologies have made significant strides in drying time, though some consideration may be needed for high-coverage prints. Premium inkjet models employ fast-drying inks to improve handling characteristics.
- ★ **Benefit:** Laser prints offer immediate usability and reliable handling, essential for maintaining efficient workflows in busy environments.

Durability and longevity

- ✓ **Laser:** Toner-based prints maintain their quality over time, resisting effects from light exposure and environmental factors. This makes them ideal for archival documents and materials that need to maintain their appearance for years.
- ✗ **Inkjet:** Print longevity varies based on ink type, with pigment-based inks offering improved durability compared to dye-based alternatives. Environmental conditions can influence long-term document appearance.
- ★ **Benefit:** Laser prints provide peace of mind for critical business documents, ensuring they remain clear and professional throughout their lifecycle.

The Business Impact

Print quality directly influences how your business is perceived and how efficiently your teams can work. Laser printing delivers measurable advantages that translate into real business value:



Professional image

Sharp, vibrant, and consistent output elevates every business document, from client proposals to marketing materials, ensuring your brand always puts its best foot forward.



Media versatility

The ability to maintain high quality across different paper types and weights means you can produce everything from everyday correspondence to premium presentations without compromise.



Operational efficiency

With no need for specialised papers or complex adjustments, your teams can focus on their work rather than managing print settings and paper stock.



Reliable performance

Smudge-free, instant-dry prints mean your documents are ready for immediate use, keeping your workflows smooth and your business moving forward.

Print quality shapes how your business communicates with the world. Laser printing delivers the precision, reliability and professional results you need to make every document count.

Every page is a reflection of your business. Your MVP makes sure it's always a good look.



Efficient for Your Business (and Easier on the Planet)

When evaluating print technology's environmental impact, it's essential to look beyond marketing claims to understand what truly matters for your business and the planet. DataMaster's testing reveals some surprising insights about where printers make their biggest environmental impact.

Modern laser printers demonstrate how advanced engineering can reduce environmental impact while maintaining professional performance. Technologies like Ricoh's induction fuser units achieve remarkably low power consumption, especially in standby mode—while enabling fast transitions between jobs and efficient double-sided printing. These capabilities help businesses meet their sustainability goals without compromising productivity.

Energy consumption and efficiency

Independent testing reveals that real-world energy costs between print technologies show minimal differences:



Laser

Advanced technologies like induction fuser units deliver significant efficiency gains. The Ricoh IM C4510 uses just 0.32W in standby mode.



Inkjet

While using less power during printing, inkjet's higher standby and ready mode energy consumption leads to minimal overall savings.



The Ricoh IM C4510 uses

1/3 the energy

of competing inkjets



With superior paper handling and efficient double-sided printing, laser technology helps reduce waste and operating costs—delivering both environmental and economic benefits.



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At the most, a modern office copier will consume about \$40 of electricity per year. For a typical print volume, in a whole year a Ricoh IM C4510 will only consume about \$12 of electricity.

Ricoh Laser vs Inkjet,
DataMaster Labs, September 2024

Paper recycling

The recyclability of printed materials also varies significantly depending on how you print:

	Laser Toner remains on the paper's surface, enabling easier removal during recycling with fewer chemical treatments. This preserves more usable fibre and produces higher-quality recycled paper.	
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Duplex efficiency

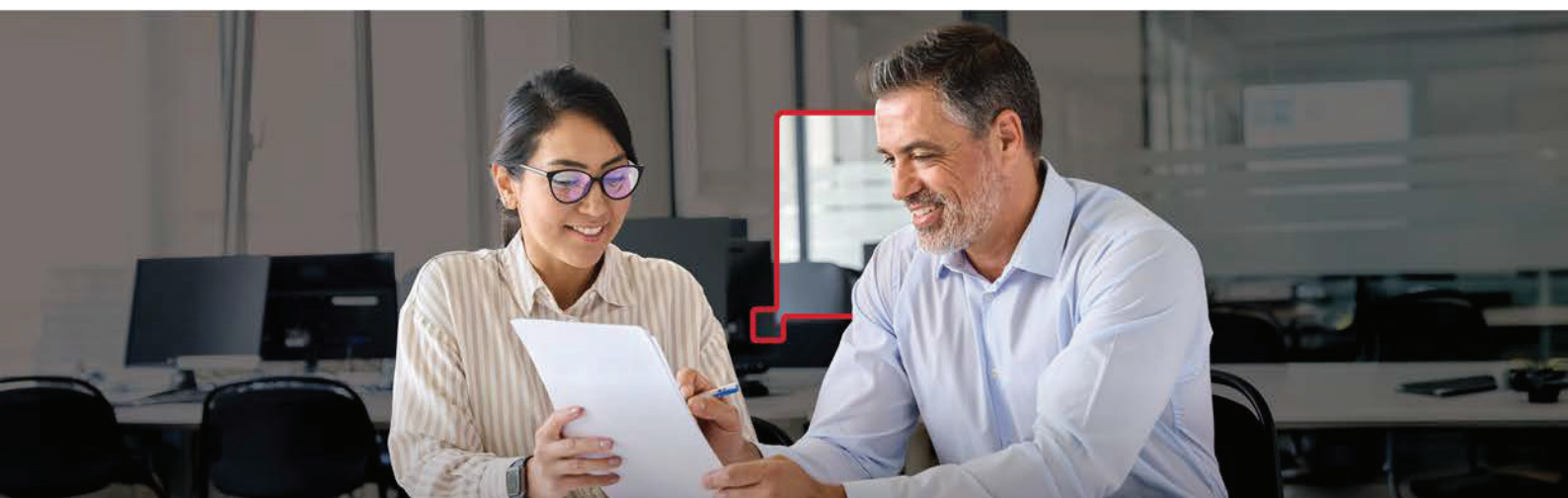
Double-sided printing capability directly influences paper consumption and costs:

	Laser Maintains full speed during duplex printing, encouraging adoption of paper-saving defaults.	
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Operational lifespan

Component durability affects both waste generation and operational costs:

	Laser Long-lasting drums and fuser units reduce replacement frequency. High-capacity toner cartridges mean fewer consumable changes.	
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The Business Impact

When environmental performance meets operational efficiency, the advantages become clear— laser print technology delivers measurable benefits that go beyond environmental metrics into tangible business value. With reduced operating costs, minimal waste, and consistent performance, laser printers supports sustainability goals while keeping work flowing smoothly. High-speed duplex printing and efficient paper handling reduce resource consumption without compromising productivity.

What This Means for Your Business:



Reduced lifecycle costs through efficient operation and durable components



Enhanced recyclability for sustainable waste management



Minimised paper waste with rapid double-sided printing



Reliable performance that keeps teams focused on core tasks



Using less energy and fewer consumables isn't just good for the planet — it's smart for your bottom line, too.



Made to Keep Work Moving

Print technology must perform flawlessly in fast-paced business environments, where every minute spent managing paper or waiting for prints directly impacts productivity. Real-world performance in document handling, media flexibility, and ease of use determines how effectively a printer serves your business needs.

DataMaster Labs' independent testing reveals significant differences in how laser and inkjet technologies perform in practical business scenarios:

	Document handling	Media flexibility
 Laser	<ul style="list-style-type: none">• Laser prints are instantly dry and ready to handle• Prints stack cleanly for efficient organisation• Documents maintain their shape without curling• No risk of smudging during normal handling	<ul style="list-style-type: none">• Seamless switching between paper types• Minimal delay when changing media weights• Consistent print quality across all media types• Full productivity maintained even for complex jobs
 Inkjet	<ul style="list-style-type: none">• Drying time required, especially for high-coverage prints• Potential for smudging during immediate handling• Paper curls are more common, especially along high ink coverage areas• Documents may stick together when stacked	<ul style="list-style-type: none">• Up to 20-second delays when switching paper types• Additional adjustments needed for different weights• Print quality can vary with media type• Reduced productivity on mixed-media jobs



The latest Ricoh fuser units change temperature almost instantly, and as a result the machines barely pause at all printing documents comprised of papers of different types and weight which are pulled from different sources.

DataMaster Labs,
September 2024

The Business Impact

When handling and usability align with business needs, the advantages become clear—laser print technology delivers immediate benefits that enhance workplace efficiency:



Time efficiency

Instantly dried prints and reliable stacking eliminate document handling delays and streamline workflows.



Operational flexibility

Seamless media switching and consistent performance across different paper types allow for diverse business uses without affecting productivity.



Professional reliability

Superior document handling ensures materials are always presentation-ready, from internal reports to client proposals.



Process optimisation

Better stackability and paper handling improve regular processes like scanning, filing, and document management.

Laser print technology's superior handling capabilities translate directly into business value. By delivering instant-ready prints and seamless media transitions, it enables teams to focus on strategic priorities rather than managing print complications.



Your MFP's Got More Brainpower Than You Think

Print devices are no longer just about producing or copying documents—they are strategic enablers that bridge physical and digital workflows, safeguard sensitive data, and enhance operational efficiency.

For organisations managing hybrid work environments and complex business processes, the right print strategy delivers measurable improvements in productivity and operational resilience.

This section examines how advanced printers like the Ricoh IM C4510 go beyond traditional print functions. From seamless digital integration that accelerates workflows to robust security features that protect critical business information, these technologies enable organisations to work more efficiently and securely.

By integrating your print infrastructure as a key component of your broader business strategy, you can build a more efficient, secure, and adaptable operation. Let's explore how the right print technology can support your business in meeting the challenges of today—and tomorrow.

The MVP of the modern office is the one that adapts — connecting paper, people, and the cloud without a hitch.



From Paper to Cloud Without the Headaches

Office print devices must bridge physical and digital processes effectively to support business operations. From digitising paper documents to enabling remote collaboration, integrated workflow capabilities can enhance productivity across the organisation.

Hybrid Workflow Requirements

Modern businesses require printing systems that can:



Convert physical documents to digital formats with high accuracy and speed



Route information automatically to business systems and workflows



Support secure mobile and remote access for distributed teams

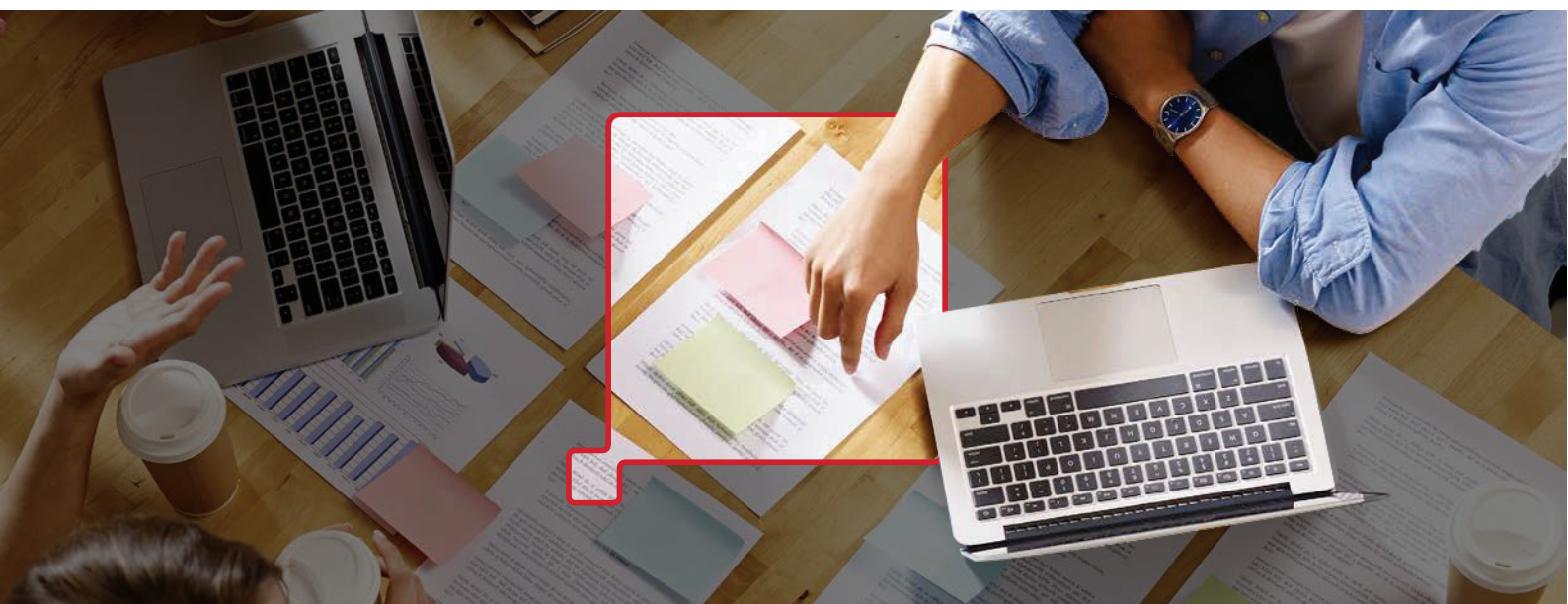


Integrate seamlessly with existing document management platforms



Enable efficient collaboration through digital document sharing

Meeting these requirements demands sophisticated digital architecture that can handle complex workflows while maintaining high performance.





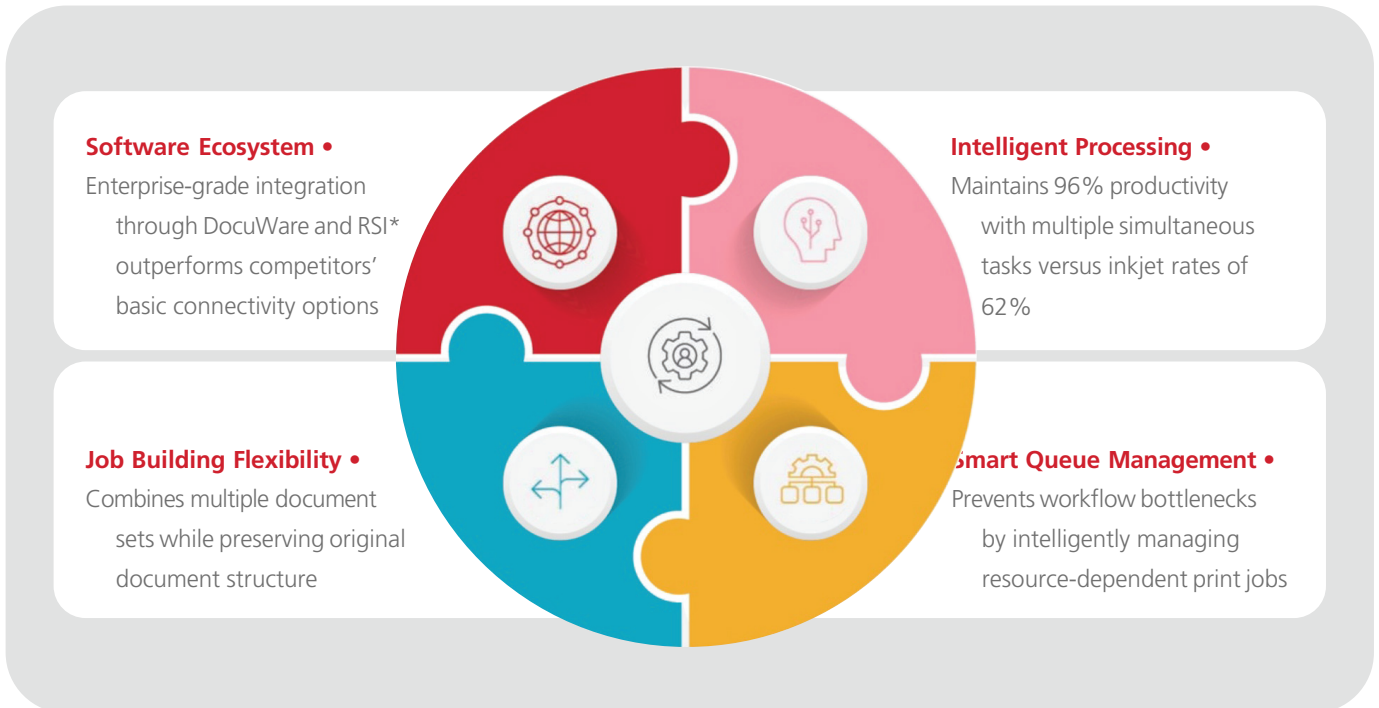
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Success in the office market of the future will depend on a print manufacturers' ability to adapt and to provide products catering to organisations' fast changing needs.

Ricoh Laser vs Inkjet,
DataMaster Labs, September 2024

Advanced Digital Architecture

Modern digital architecture relies on several core components to achieve seamless workflow integration:

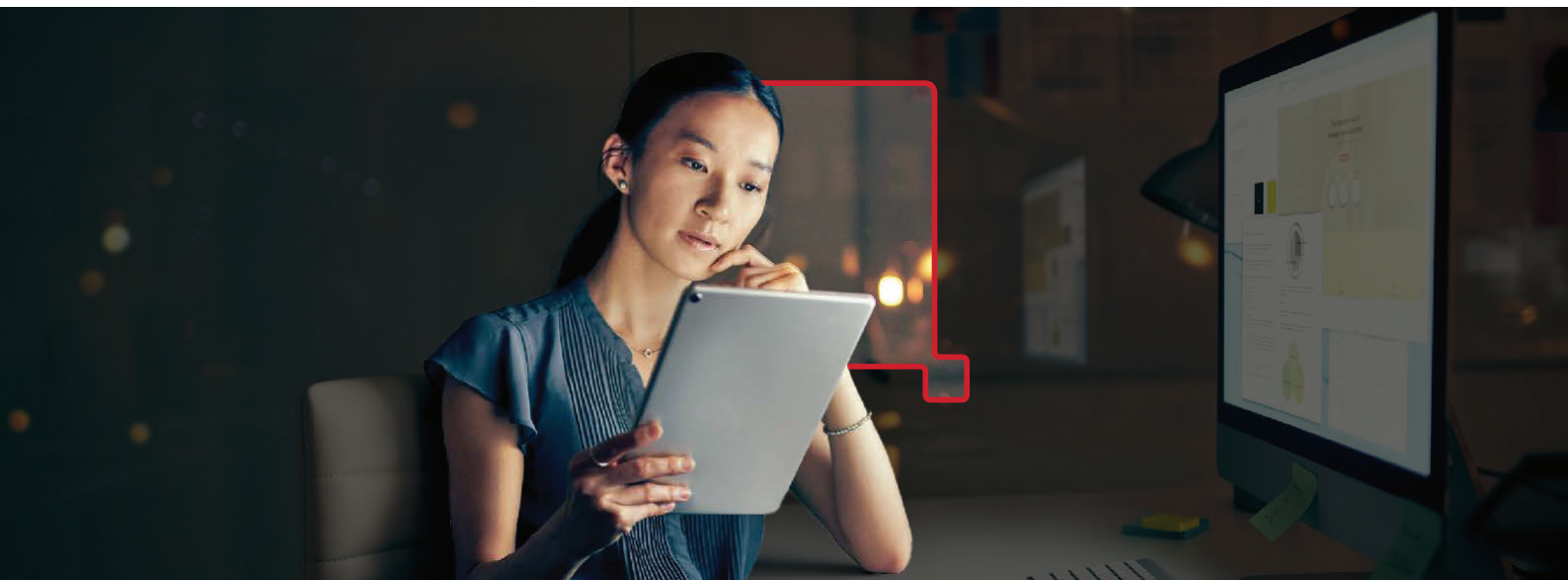


* RICOH Smart Integration

When these capabilities work together, supported by proven expertise in digital workflows, businesses gain a robust platform that efficiently converts paper-based processes into streamlined digital workflows—all while maintaining high productivity levels.

Security That Never Sleeps

Modern print devices serve as digital hubs that process highly sensitive business information. From financial records and personnel files to confidential business plans, these systems handle critical information in both physical and digital forms. This makes data security essential—not just an optional add-on.



Comprehensive Security Architecture

Security must be built into print devices from the ground up, not added as an afterthought. The Ricoh IM C4510 exemplifies this approach, having earned the prestigious Buyers Lab Security Validation Seal for 2024-2025 from Keypoint Intelligence—recognition of its robust, built-in security features.



These integrated security capabilities form a complete protection framework that safeguards sensitive information while maintaining efficient workflows. Ricoh MFPs come equipped with up-to-date security features that protect sensitive data, ensuring businesses can operate with confidence in an increasingly complex digital environment.

Ricoh's decades of experience, and its strategy of investing in software solutions, will be more significant than the print technology.

Ricoh Laser vs Inkjet,
DataMaster Labs,
September 2024

Why Your MFP Deserves a Raise

The selection of print technology for modern business demands careful consideration across multiple dimensions. As DataMaster's independent evaluation reveals, laser printing technology for the office continues to deliver significant advantages that directly impact business performance, security, and sustainability.

For businesses operating in hybrid environments, consistent print quality and reliability are fundamental requirements. Ricoh's extensive experience in office solutions, seen in the IM C4510, ensures businesses can confidently meet current demands while preparing for future challenges.

This combination of proven technology, advanced features, and environmental consciousness provides a solid foundation for businesses focused on sustainable growth.

Contact Ricoh today to learn how our solutions can support your business goals.



About Ricoh

Ricoh is empowering digital workplaces by utilising innovative partners and technologies and providing expert services that enable individuals to work smarter from anywhere. With cultivated knowledge and organisational capabilities nurtured over its 85-year history, Ricoh is a leading provider of digital services, process automation, and information management solutions designed to support digital transformation and optimise business performance.

Ready to Get More from Your Office MVP?

For more information, visit **ricoh.com.au**

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