Activate enterprise intelligence: Gaining a competitive edge with AI-powered document enrichment

IRON MOUNTAIN®

Contents

The big idea

From data transformation pains to AI-readiness gains

Across the enterprise, physical and digital data assets hold massive, untapped competitive advantages. Yet, this information is often trapped in silos, locked in unstructured formats, or is otherwise difficult to access. These assets also play a critical role in any successful AI strategy. For today's leaders, this combination of potential and obstacle defines the data transformation journey.

The key questions are:

> **How can data be made accessible in a way that is cost-effective, fast, and scalable?**

> **How can an organization equip itself with AI-ready data right now?**

The answer lies in AI-powered document enrichment technologies like intelligent document processing (IDP) and agentic AI. IDP automates document classification and performs data extraction with high accuracy, integrating digital and physical asset management to prepare all data for AI. As a result, organizations can quickly turn unstructured data into actionable insights and empower intelligent decision-making.

What *exactly* is unstructured data?

Unstructured data is information in many different forms which doesn't follow conventional data models, making it difficult to store and manage in a mainstream relational database.

It includes text files and documents, emails, video, audio, images, sensor data, social media data, and digital logs from servers, websites, or applications.

Source: TechTarget

Executive summary

Answering the AI imperative with document-centric process automation and innovation

Every IT transformation introduces complexity. Pressured to get AI solutions running, leaders must navigate between feeding applications with insufficient data and falling behind in the race for AI-driven efficiency.

A clear path forward exists. By applying AI-powered document enrichment, organizations can strategically transform their data assets. This approach facilitates the seamless integration of physical and digital content, elevates docume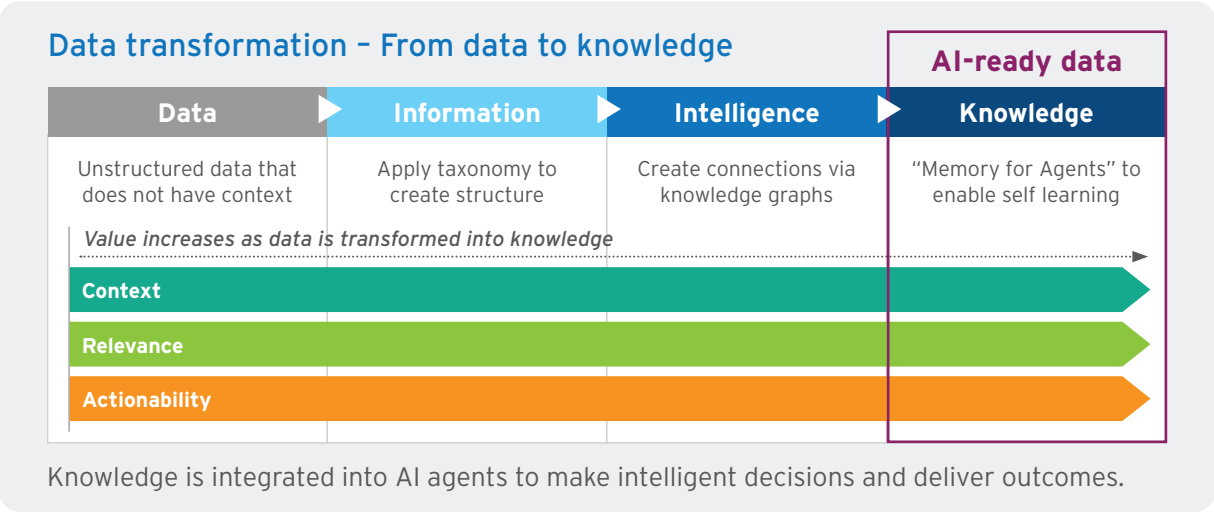nt-centric process automation, and builds a rich foundation of unstructured data for pioneering AI innovation. This strategy leads to better business outcomes, including faster processing times, reduced costs, and improved scalability.

The data transformation journey follows a clear path: unstructured data becomes structured information, which combines with other data to generate intelligence. This intelligence ultimately evolves into knowledge. This knowledge becomes the memory for AI agents, empowering them to operate as agentic AI systems that autonomously support decision-making and execute complex operational objectives. It turns AI from a concept into a digital workforce that accelerates business and overcomes challenges of scale, cost, and compliance.

This flow is only achievable with a solution that is flexible, full-featured, and secure. The solution must be user-friendly and support both model evaluation and human-in-the-loop (HITL) workflows.

Iron Mountain, a company with a decades-long reputation as the gold standard in information management, delivers on this need. Here, we will discuss key considerations, explore how the solution works, and demonstrate the return on investment (ROI) organizations see when partnering with Iron Mountain to achieve data transformation and unlock value.

Data transformation – From data to knowledge

AI-ready data

Data	Information	Intelligence	Knowledge
Unstructured data that does not have context	Apply taxonomy to create structure	Create connections via knowledge graphs	"Memory for Agents" to enable self learning

Value increases as data is transformed into knowledge

- Context
- Relevance
- Actionability

Knowledge is integrated into AI agents to make intelligent decisions and deliver outcomes.

What is agentic AI?

AI agents are transformative software systems built to interact with their environment, analyze data, and make decisions to achieve specific goals.

7 common challenges in data transformation

Leaders building an AI strategy naturally ask fundamental questions:

› What data do we need?

› How is it stored?

› How will we manage data quality and security?

› What process adjustments are needed?

› How capable is our in-house infrastructure and expertise?

› How can we foster cross-departmental collaboration and prove ROI?

They consider these questions while designing a low-risk strategy that also provides go-to-market agility and boosts capacity for AI innovation, where digital teammates can autonomously manage entire workflows. **To better understand the obstacles, we explore seven common pain points organizations face.**

1

Data quality

Inaccurate or inconsistent data—such as missing values and duplicate records—hinders effective learning for AI models. Research shows that companies lose an average of $15 million annually from poor data quality. Organizations also face the challenge of managing immense volumes of unstructured data, including raw text, images, and videos. It is critical to cleanse this data and mitigate biases that could skew AI outputs.

2

Data integration

Data silos are a significant challenge, often stemming from decades of different departments using disparate systems. Outdated databases and legacy software may not be compatible with modern AI frameworks, complicating the unification of data sources. The absence of standardized formats and naming conventions leads to further integration problems. The global data integration market is expected to surpass US$30.17 billion by 2033, highlighting the scale of this hurdle.

3

Compliance and data governance

Privacy regulations, security risks, and ethical considerations are paramount. In fact, 88% of data leaders cite data security as an increasingly high priority because of AI. Preparing data for AI requires adherence to compliance standards and robust data protection through sophisticated encryption, access controls, and continuous monitoring.

4

Scalability and infrastructure

AI models demand high-performance computing and massive, accessible data storage. In some cases, this means real-time data ingestion and processing for rapid analysis. The demand is reflected in forecasts predicting AI-ready data center capacity will rise at an average rate of 33% per year through 2030.

5

Talent and expertise

Data wrangling and database management skills are in demand, and many leaders question if their current staff can meet the need. Nearly 37% of leaders reported their organizations were only slightly or not at all prepared to address talent concerns related to AI adoption. Concurrently, in-house IT experts worry that key stakeholders may not fully grasp the data requirements for AI, leading to misaligned expectations.

6

Cost and ROI

Preparing data for AI innovation requires an investment in technology, tools, and talent. Quantifying the potential business benefits and justifying ongoing expenditures can be challenging. In one survey, 74% of executives reported they have yet to show tangible value from their use of AI.
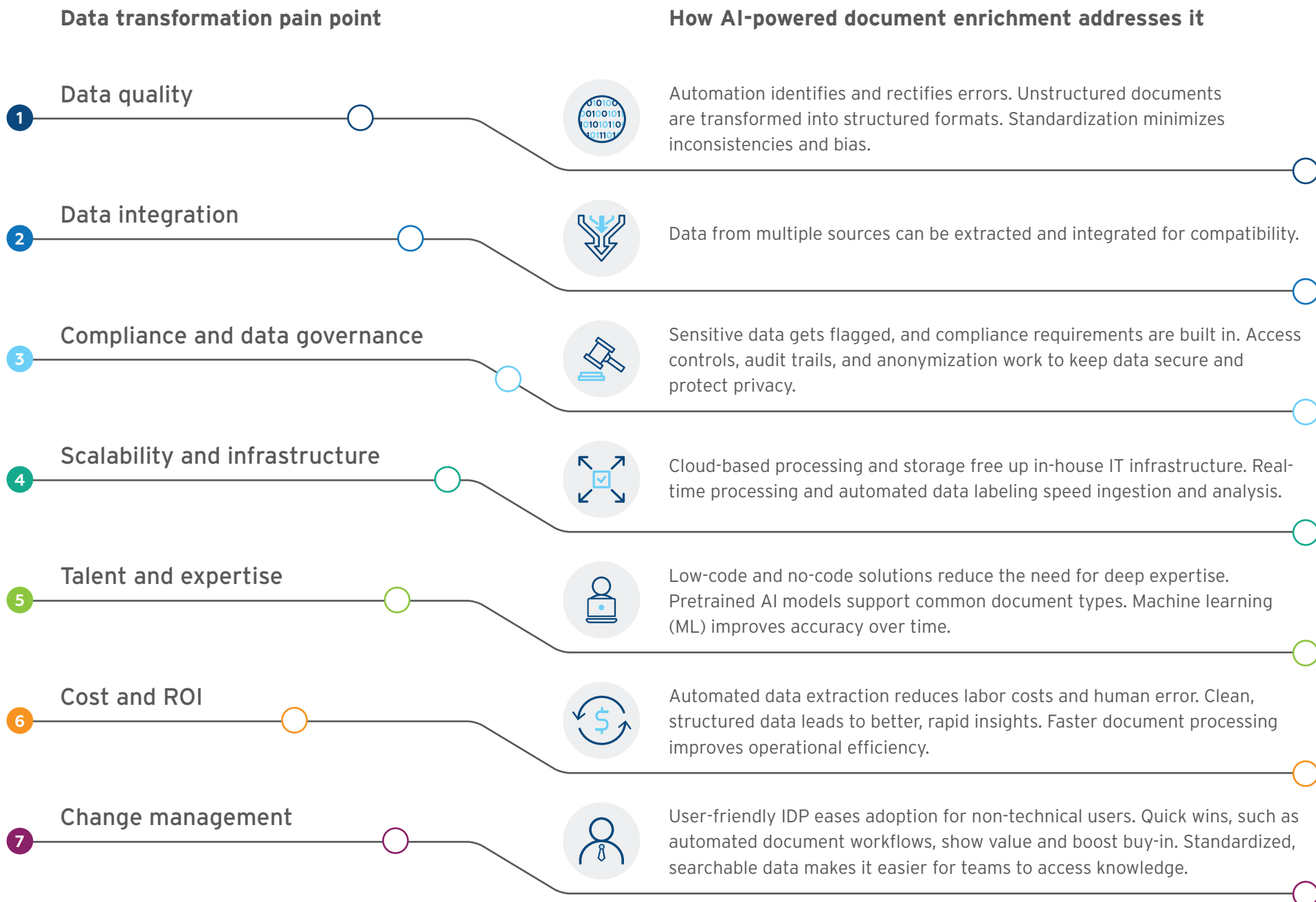
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Change management

Successful data preparation requires coordination among all teams, including IT, data science, legal, and business groups. While employees are optimistic about AI's potential, research shows seven in 10 never use it. Employees may hesitate to adopt new AI-driven workflows, and department leads may hold different views on AI strategy.

Transforming pain points into progress with AI-powered document enrichment

Data transformation pain point

How AI-powered document enrichment addresses it

1 Data quality

Automation identifies and rectifies errors. Unstructured documents are transformed into structured formats. Standardization minimizes inconsistencies and bias.

2 Data integration

Data from multiple sources can be extracted and integrated for compatibility.

3 Compliance and data governance

Sensitive data gets flagged, and compliance requirements are built in. Access controls, audit trails, and anonymization work to keep data secure and protect privacy.

4 Scalability and infrastructure

Cloud-based processing and storage free up in-house IT infrastructure. Real-time processing and automated data labeling speed ingestion and analysis.

5 Talent and expertise

Low-code and no-code solutions reduce the need for deep expertise. Pretrained AI models support common document types. Machine learning (ML) improves accuracy over time.

6 Cost and ROI

Automated data extraction reduces labor costs and human error. Clean, structured data leads to better, rapid insights. Faster document processing improves operational efficiency.

7 Change management

User-friendly IDP eases adoption for non-technical users. Quick wins, such as automated document workflows, show value and boost buy-in. Standardized, searchable data makes it easier for teams to access knowledge.

Driving business outcomes with AI

A mix of physical and digital documents makes it difficult for employees to find and share information, increasing compliance risks. At the same time, organizations need AI-ready data to meet the demand for greater efficiency. Leading organizations are adopting advanced AI technologies to optimize workflows through automation.

The evolution to AI-powered IDP is a natural progression. Businesses have long used automated document processing and optical character recognition to extract data. Today's IDP elevates these capabilities. By leveraging computer vision, natural language processing (NLP), large language models (LLM), and machine learning, teams become more productive and efficient, improving operations and the bottom line.

Here's how:

Rapid insights

IDP's greatest benefit is its ability to help businesses adapt and innovate faster. By automating the extraction, classification, and enrichment of data, organizations dramatically increase the speed of document processing while improving accuracy. Data becomes actionable knowledge, enabling quicker decision-making and producing superior business outcomes.

Human-in-the-loop

While AI creates massive efficiencies, human intervention fine-tunes accuracy. HITL capabilities seamlessly integrate staff into the process for precise document handling. During data ingestion, IDP can be customized to identify exceptions for manual review, completing the data with an auditable trail.

Generative and agentic AI readiness

Generative AI-powered chat allows users to swiftly query and retrieve information from documents within a secure operating environment. Establishing a foundation of clean, structured data is the critical first step to deploying sophisticated agentic AI systems. With a reliable, high-quality knowledge base, these digital teammates can perform complex tasks autonomously—from interrogating databases to solving operational problems with minimal human intervention.

Customized workflows

No two organizations process documents identically. An advanced IDP solution offers tools to easily customize models and workflows for quick setup and simple refinements. Staff can discover new ways to improve processes and test changes for efficiency.

Ability to iterate and scale

IDP is a solution that continuously improves. It scales easily and harnesses the power of machine learning to get better over time at no additional cost. Staff also become more effective as they work with the technology, freeing them to focus on strategic goals rather than mundane tasks.

> By leveraging computer vision, natural language processing (NLP), large language models (LLM), and machine learning, teams become more productive and efficient, improving operations and the bottom line.

A look inside the technology: Iron Mountain InSight DXP

For over 70 years, Iron Mountain has been a strategic partner in information and asset management. As a global leader in storage and information management services, Iron Mountain is trusted by more than 225,000 organizations worldwide, including over 95% of the Fortune 1000. Iron Mountain provides a framework to bridge the gap between physical and digital data and extract value along the information lifecycle. Core technology products support this framework, empowering customers to preserve institutional knowledge and enhance efficiency, security, and access.

Iron Mountain InSight® Digital Experience Platform (DXP) is a scalable AI-powered data platform that transforms your information into your competitive advantage. By unifying your digital and physical information and integrating with your core business systems, InSight DXP delivers the single pane of glass view needed for strategic oversight. The platform utilizes the latest advances in AI to activate the wealth of information within your documents, enriching unstructured data with critical context. This leads to improved information governance and fuels better, more informed decisions. With customizable workflows and insightful dashboards, InSight DXP delivers the process transparency and actionable insights that power your business.

With InSight DXP, you can:

> Govern information intelligently and compliantly

> Streamline manual document and data processes

> Unlock actionable insights from unstructured data

The Iron Mountain advantage

In a world of fragmented systems, the Iron Mountain advantage is clear: a single, holistic platform for your entire information lifecycle. While other vendors may require a patchwork of solutions, our analyst-recognized InSight DXP provides AI-powered insights and workflow automation across all your digital, physical, and rich media content.

This powerful technology is built on a foundation of trust. The world's most successful companies run on trust, which is why over 95% of the Fortune 1000 partner with Iron Mountain to handle their most complex information. A core tenet of our platform is data integrity; we provide you the flexibility and control to manage how your data is utilized for training the models used in your instance of InSight DXP, keeping it distinct from the data sets of other customers to maintain the confidentiality of your intellectual property.

You can get started quickly with out-of-the-box solutions or work with our professional services team to customize a solution for your unique needs. For a more hands-on approach, you can create customized AI-driven workflows using InSight DXP's intuitive drag-and-drop interface.

Alternatively, for a fully managed solution, our experts can become an extension of your team, pairing deep information management expertise with our powerful technology.

This service is supported by a secure global infrastructure with a proven ability to handle large-scale deployments in complex, regulated environments. The platform supports a wide range of data fields—from 1 to more than 2,000—and achieves an average extraction accuracy of 97% with human-in-the-loop validation. This level of performance contributes to our industry recognition, including a #1 ranking in the Tech Top 50's AI Implementation category by the Mass Technology Leadership Council.

Real-world examples show quantifiable ROI

The numbers are daunting. A typical organization deals with 175 zettabytes of data from 400 data sources, with 80% of it unstructured. The cost of non-compliance increases 45% annually.

But other numbers—drawn from Iron Mountain customer experiences—offer assurances: **$1 million savings in labor costs, 15 million documents processed per day, and 97% accuracy with AI models.**

Across industries, Iron Mountain InSight facilitates intelligent decision-making by adding critical context to unstructured data. Customer ROI data shows an impressive list of benefits, from customer satisfaction and higher data quality to gains in efficiency and revenue.

Here are some other examples of benefits achieved:

Improved customer service

A European government agency automated the processing of over five million handwritten and cursive documents using IDP with HITL validation. This transformation resulted in a **99.5% data extraction accuracy rate,** a reduction in labor costs by **over 50%,** and **more than double the operational speed**, leading to significantly faster and more accurate citizen services.

Similarly, a North American government agency reduced its backlog by processing 130 document types with a 35% increase in speed and 96% accuracy. In total, 230 million images were processed, and more than **315 employees were cleared to support the new digitized workflow.**

Iron Mountain also used its own solution to improve in-house operations. Previously, employees spent hours digging through contracts to set up new customer accounts. After deploying InSight DXP, the company saved over 458 hours each month, improving the employee experience. "Our customers are now being onboarded in two days instead of three," said Jarrett Garcia, Director of Enterprise Platform Architecture at Iron Mountain.

Faster processing times and labor cost reduction

In that same use case, Iron Mountain reduced data entry time by 25 minutes per contract, saving 5,500 hours annually.

In the UK, the HM Courts and Tribunals Service (HMCTS)—which maintains 41+ million records—improved its average will delivery target by 40% after deploying InSight. "Our target is to deliver wills within five days from point of order," said Stephen Burgess, Family Probate Jurisdictional and Operational Support Manager at HMCTS. "Since moving to Iron Mountain InSight, we've seen **average delivery time for both paper-based and digital wills reduce to just three days.**"

In the US, a government agency partnered with Iron Mountain to digitize 2 billion microfilm images accumulated over 50 years, each of varying age and quality. They extracted and classified all necessary data at a rate of up to **15 million documents per day and 97% accuracy.** The agency can now identify and contact citizens with increased speed, automate workflows for **higher productivity,** and **reduce the costs of manual labor as well as physical storage.**

Higher quality data and reduction in human error

One North American government agency extracted data from over 720 million fields, including handwritten text, at a 99% accuracy rate. The solution required applying thousands of business rules and interfacing the data with a 30-year-old legacy system. In addition to the increase in accuracy, the agency reported benefits of reduced labor costs of $600K and 50% boost in speed due to automation.

Another excellent example of data quality improvement is Iron Mountain's application of InSight IDP, which reduces human error in the company's own customer onboarding initiative.

"The care team no longer has to read the contract and pricing documents and manually type information into our various systems," Garcia said. "AI-powered extraction pulls the relevant information—including metadata—from the contract and automatically enters the data in our system, **saving time and improving data quality** and employee experiences."

"Staff are getting higher quality data because they no longer need to type everything in," Garcia continued. **"They've gone from being authors to editors."**

Lower document processing costs

A healthcare organization digitized and centralized its unstructured dark data to gain visibility into physical documentation and structured data. This enhanced visibility **helps prevent ineligible pension claims,** both past and future. By consolidating digitized documents with various formats and storage locations into a single, searchable platform, pension records management and reporting improved, **reducing financial risks.** InSight empowered the healthcare company to validate paid claims faster and more accurately, **saving over $1 million in claims liability.**

A U.S. mortgage lender implemented Iron Mountain Digital Mail to shorten the document review and delivery lifecycle. Working with **more than 250**

> "AI-powered extraction pulls the relevant information— including metadata—from the contract and automatically enters the data in our system, **saving time and improving data quality** and employee experiences."

document types—including recorded security instruments, title policies, investor requirements, and customer correspondence—the company improved process efficiencies and turn times. As a result, the lender witnessed a **25% trailing document management cost reduction.**

Improved scalability, increased revenue, and faster time to value

The HMCTS accomplished **870,000 pages converted to fully searchable records in just two weeks.** Along with a transformed website, HMCTS can deliver better, faster outcomes for probate users, genealogists, solicitors, and the public. The agency is also now well-positioned to innovate as technology evolves.

The U.S. mortgage lender had a similar success, cutting through mounds of paper and red tape to meet the needs of its customers and industry partners. In terms of scalability, Digital Mail's AI technology enabled the lender to accelerate further and faster than it otherwise could with manual processes. The company experienced a **30% year-over-year increase with newly added mortgage customers** because of its **ability to respond to market demand** and **realign staffing resources to revenue creation positions.**

Next steps

AI-readiness is within reach

Organizations are rapidly adopting AI-driven tools to reshape business decisions. A 2024 McKinsey Global Survey found that nearly two-thirds of organizations are implementing AI digital transformation initiatives. This shift is creating real impact, with companies reporting both cost decreases and revenue jumps in business units that deploy AI.

An organization needs AI-powered document enrichment to prepare its data for future AI innovation, culminating in the deployment of agentic

AI that can autonomously drive operations. AI and IDP are dynamic technologies that empower organizations to unlock significant value from their data, creating efficiencies and competitive advantages.

By transforming unstructured data into structured formats, AI-powered IDP enables organizations to shrink workflow cycles from weeks to hours, focus on strategy instead of data preparation, and consistently make evidence-based decisions.

Mastering unstructured data is key to thriving in our AI world.

Is your organization AI-ready?

Take this short 10-question assessment.

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About Iron Mountain

Iron Mountain Incorporated (NYSE: IRM), founded in 1951, is the global leader for storage and information management services. Trusted by more than 225,000 organizations around the world, and with a real estate network of more than 98 million square feet across more than 1,400 facilities in over 60 countries, Iron Mountain stores and protects billions of information assets, including critical business information, highly sensitive data, and cultural and historical artifacts. Providing solutions that include secure storage, information management, digital transformation, secure destruction, as well as data centers, art storage and logistics, and cloud services, Iron Mountain helps organizations lower cost and risk, comply with regulations, recover from disaster, and enable a more digital way of working. Visit www.ironmountain.com for more information.