Executive summary

# AI maturity in healthcare and life sciences

## Is your organisation ready to harness the power of AI and unstructured data

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IRON MOUNTAIN®

# Introduction

Artificial intelligence (AI) and unstructured data are beginning to transform the healthcare and life sciences sector, creating opportunities to improve patient care and streamline critical processes. However, the sector remains in the early stages of its AI maturity journey, particularly when compared to more digitally advanced industries. The sector is gradually advancing in AI maturity through a clear focus on improving patient diagnosis and treatment plans through AI-driven automation, unstructured data, and multi-modal AI, setting the foundation for transformative change.

Findings are based on research conducted by Iron Mountain alongside independent market research specialist Vanson Bourne. Data in this report is based on 186 IT and data decision-makers in the healthcare and life sciences sector, who have knowledge or involvement in their AI strategy. You can read the global report **here**.

## Three key takeaways:

More than one-third (37%) of decision-makers in the healthcare and life sciences industry are in the middle of their AI journey, with an additional 29% early in the AI journey, meaning many have yet to reach AI maturity within their organisations

Improving and enhancing customer service is key for the industry, and improving patient diagnosis and treatment plans through AI-driven automation will be the cornerstone of this transformation


As a result, 58% of organisations in the healthcare sector are leveraging unstructured data with AI, and are one of the most likely industries to see the growing importance of multi-modal AI in the next two years

# Current AI adoption

The healthcare and life sciences sector demonstrates relatively average AI adoption, with respondents fairly evenly distributed across the maturity journey. Notably, the sector has more organisations in the middle of their AI journey than the global average (37% vs an average of 30%), and fewer in the early or late stages (see **Figure 1**).

**Comparing the healthcare and lifesciences sector maturity to the average**

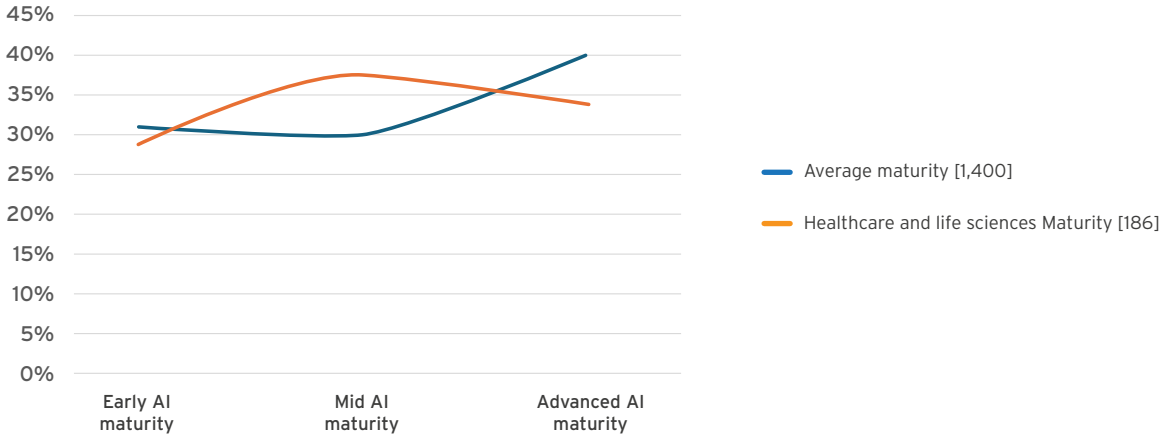


**Figure 1.** AI maturity curve analysis, looking at the global average curve, and the healthcare and life sciences maturity curve. Base size shown in chart.

This means that many in the sector have made strides towards implementing AI but are being held back by certain factors such as regulations, budgets, or expertise. To accelerate AI adoption and increase AI initiative value, organisations within this sector are wanting to scale IT capabilities to handle large volumes of data (54%), source and prepare relevant, high-quality data for AI training and analysis (50%) and create a clear vision and strategy for AI (47%). These commonly desired initiatives indicate a need for leadership. Without much-needed guidance on how to effectively implement, and leverage AI, the sector will remain stagnant. However, this isn't a new struggle for the sector. In fact, using the UK as an example, a report released in 2024 highlights that regulatory challenges and inadequate leadership support and resources hinders health innovation in the UK. For many, this is likely down to healthcare staff struggling to test, adopt, and scale new technologies due to disjointed policies, risk-averse cultures, and poor alignment from leadership. These challenges underscore the critical need for strong leadership to effectively implement and leverage AI technologies.

However, AI use typically ranges across five different organisational areas (on average), with the most common being IT and security, or customer service (see **Figure 2**).

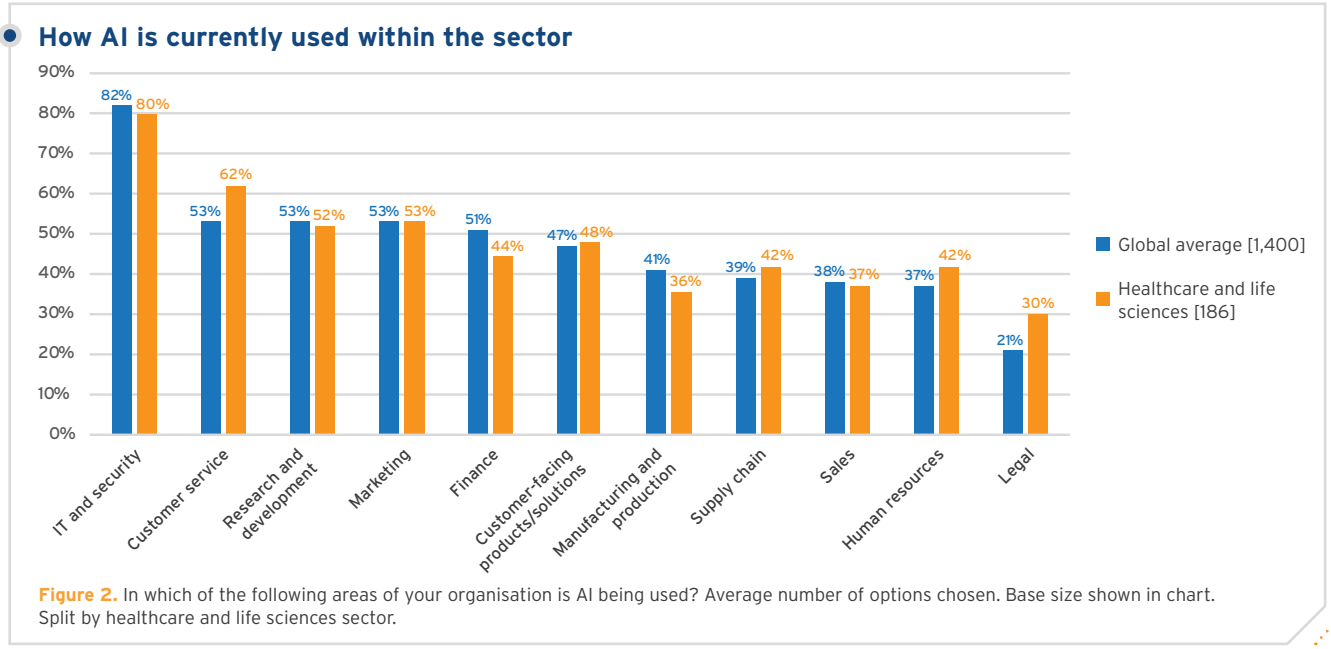


**Figure 2.** In which of the following areas of your organisation is AI being used? Average number of options chosen. Base size shown in chart. Split by healthcare and life sciences sector.

It's understandable why the healthcare sector would use AI so heavily within customer service touchpoints as the industry relies on building trust, providing personalised care, and ensuring seamless communication with patients and stakeholders. Moreover, one in three (30%) healthcare organisations also rely on using AI in legal areas, which is higher than the average (21%). Through using AI, legal processes can be streamlined, reducing the time and cost associated with compliance, contract analysis, and regulatory reporting. This enables organisations to meet stringent legal requirements within the healthcare sector more efficiently while optimising resources.

As hinted before, the sector relies heavily on using AI for automating processes (62%) and reducing costs (60%). In fact, the technologies ranked as most important in achieving organisational success today help achieve just this; AI-automation and human augmentation tools. These technologies help with administrative tasks, optimising resource allocation, and improve patient outcomes by accelerating diagnostics, enhancing treatment planning, and reducing operational inefficiencies.

However, there's a bright future for AI in the healthcare sector outside of automation. In fact, within the UK, the government has invested £100 million in funding for the National Health Service (NHS), looking specifically to leverage AI. Additionally, there have been reports in the US showing that nearly $2.8 billion has already been invested into AI healthcare companies across 2024, with some reports projecting the industry to see an injection of $11.1 billion from venture-capitalists across the year. It's clear that AI is seen as a promising tool that can help analyse millions of data points, allowing medical staff to quickly identify patients at risk and suggest effective treatment plans. This capability will help revolutionise the healthcare sector, reducing diagnosis times and delivering other key benefits.

As a result, it's extremely positive to see that the future for AI tools within the industry is multi-modal AI. This technology will enable the integration of diverse data types, such as medical images, patient records and genomic data to gain a total picture of patient health. By combining these data sources, we can expect to see faster, more accurate diagnosis, personalised treatment plans and overall enhanced patient plans. The opportunity for AI in the sector is monumental, it will act as a cornerstone for the future of AI in healthcare, paving the way for transformation.

# Leveraging unstructured is key to enhancing customer experience

Unstructured data, such as text, images, audio, and video, lacks a predefined format and requires advanced tools to process and analyse. However, this type of data can help construct a more concrete picture of what's going on within an organisation, more so than structured data alone. For instance, through using AI with patient files containing unstructured data, organisations will get a quick glance at any potential patterns within the patient history, helping to quickly identify any risk factors. Unstructured data can also be pulled from patient feedback forms, and by using AI, organisations can get actionable insights into what's working well or what areas need to be developed to heighten customer experience.

Unfortunately, this mindset of prioritising unstructured data has not yet been made as fewer from the healthcare industry than the global average say that unstructured data is going to be important to the success of their organisation over the next two years (52% vs a global average of 56%). It's likely there's an underestimation of unstructured data's importance, with few fully recognising the critical role it plays in supporting resources and general patient satisfaction. This could be as a result of an employee's lack of awareness of how unstructured data can be used, particularly within the legacy systems. Closing this gap in awareness and capability will be essential for healthcare organisations to unlock the full potential of unstructured data, enabling more effective decision-making, improving patient outcomes, and enhancing operational efficiency in an increasingly data-driven sector.

However, compliance and regulations restrictions strongly affect what organisations within the healthcare industry can and can't do. For instance, strict data privacy regulations like HIPAA (Health Insurance Portability and Accountability Act) in the US or GDPR (General Data Protection Regulation) in Europe govern how patient data is collected, stored, and used. As customer satisfaction is the most important AI outcome for the healthcare and life sciences industry, it makes sense why adhering to these rules is critical to maintaining trust and delivering quality care. Failing to do so will not only compromise patient trust but also expose organisations to legal and financial repercussions, potentially damaging their reputation.

Employee productivity is the business outcome least likely to be considered "very important" by organisations within the industry (see **Figure 3**). What's more, this is much lower than the global average and reflects the prioritisation of patient care and compliance over operational metrics.

**How important is AI for the following business outcomes in the next 2 years?**

Showing data for 'very important' only

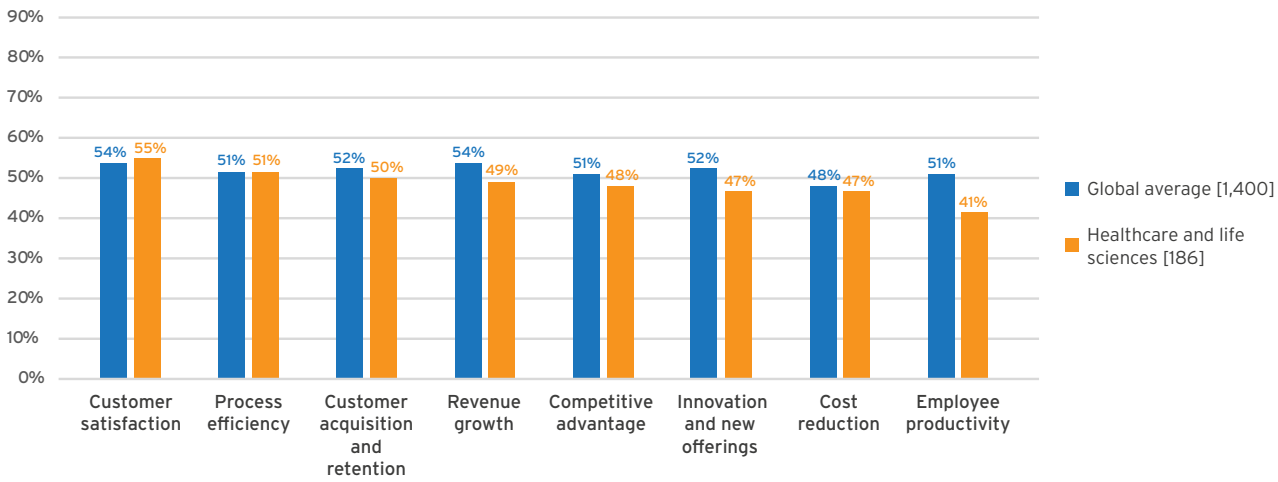


**Figure 3.** How would you rate the importance of AI in helping your organisation achieve the following goals over the next 2 years? Base shown in chart.

The focus on customer service, again, is demonstrated by the sector primarily using AI to create a stronger customer base, through valuing personalised experiences and seamless interactions with patients and stakeholders.

Moreover, 53% of decision-makers in the sector strongly agree that their organisation effectively uses AI-powered agents to streamline operations and improve customer experience.

Healthcare and life sciences organisations are also leaning on AI capabilities to help automate processes, reduce costs and innovate new products, yet few have the right processes in place to leverage unstructured data effectively for these applications. For instance ...

Only **23%** are consistently effective at governing, protecting and ensuring audit-ready compliance of unstructured data

One in four (**26%**) feel they're highly effective at managing unstructured data at scale

**22%** have made significant progress with implementing processes to prepare high-quality unstructured data

But **45%** still strongly agree there's more they can do to improve the quality of their unstructured data

**24%** are consistently effective in making unstructured data trustworthy

**41%** strongly agree they can improve the trustworthiness of their unstructured data

One in three (**34%**) strongly agree they face significant challenges in scaling and integrating AI solutions when meeting environmental sustainability goals

Double the global average (**8%** and **4%** respectively) use limited data protection measures where only critical data is sanitised or destroyed

Only **19%** feel they excel at making unstructured data accessible

Despite these setbacks, 20% within the sector routinely, and an additional 56% often use AI to extract value from unstructured data. What's more, an average of 58% of AI use cases leverage unstructured data, just under the global average (60%). AI technology and unstructured data could offer healthcare and life sciences organisations an exceptional opportunity—if they learn to scale and address the industry's unique challenges.

# Conclusion:

**The healthcare industry has made strides in its AI journey, with a greater-than-average proportion of organisations progressing toward the middle stages of maturity.**

However, critical steps are needed to address the growing importance of unstructured data, which remains underutilised by many. Embracing the use of unstructured data and implementing the right processes to safely integrate unstructured data with AI capabilities will enable healthcare organisations to advance their AI maturity, unlock enhanced decision-making, operational efficiencies, and trustworthy insights, ensuring transformative outcomes such as improved patient care, cost reductions, and sustainable innovation.

To achieve this, the healthcare industry must prioritise scaling IT capabilities to manage data centres. Additionally, the industry must invest in unstructured data training with AI to establish trustworthy data and establish clearly defined AI strategies. By addressing these foundational elements, the industry can fast-track its AI adoption, cement its position as a leader in innovation, and deliver greater value to patients, organisations, and the broader healthcare ecosystem.

## How can Iron Mountain help?

Whether you're at the start of your AI journey or reaching full maturity, Iron Mountain can help you turn your information into insights and further your AI-readiness. Determine what information should be scanned, stored, or defensibly destroyed, by developing a data governance framework. Automate manual processes, enable audit-ready compliance, and make information accessible and useful with Iron Mountain InSight® Digital Experience Platform (DXP). The scalable platform offers comprehensive digital and physical content management, intelligent document processing, workflow automation, and information governance capabilities that seamlessly integrate into your existing environment and support your digital transformation initiatives.

# About the research

Iron Mountain commissioned independent market research specialist Vanson Bourne to conduct this piece of research. The study included surveying 1,400 IT and data decision makers who have knowledge of or responsibility for AI strategy at their organisation. Respondents' organisations had to have 250 employees or more across the following countries: US, UK, France, Germany, India and Australia.

Organisations are from several public and private sectors but there was a strong focus in banking and financial services, insurance, healthcare and life sciences, media and entertainment, the public sector (excluding healthcare) and energy. This summary is based off 186 decision makers in the healthcare and life sciences sector.

## About Vanson Bourne

Vanson Bourne is an independent specialist in market research for the technology sector. Their reputation for robust and credible research-based analysis is founded upon rigorous research principles and their ability to seek the opinions of senior decision-makers across technical and business functions in all business sectors and all major markets. For more information, visit www.vansonbourne.com.

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