

AI IN PHARMA STATE OF PLAY REPORT

HOW INSIGHTS & ANALYTICS LEADERS ARE USING AI

MAY 2025



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Welcome to the first *AI in Pharma State of Play Report* from Day One Strategy

AI is no longer a distant prospect: it's here and already transforming how businesses operate. In pharmaceutical market research, AI is disrupting traditional methods, enhancing speed, efficiency and analytical capabilities.

To help you lead your organisation's AI journey, this report also includes practical guidance that you can put into action today. At the end of each of the four chapters you'll find tips and tools for navigating a different aspect of AI.

The global market research industry was forecast to generate \$140 billion in revenue in 2024, up from \$130 billion in 2023¹—and AI technologies are now poised to revolutionise how this expanding industry delivers value.

Now is the time for Insights leaders to define their role in the AI-powered future of pharma. We hope this report will inspire you to put AI to work for your business.

This report presents pharma Insights and Analytics leaders' attitudes to AI, based on 20 in-depth interviews. These discussions reveal an industry in transition, with leaders holding differing outlooks on AI's role in their future.

At Day One Strategy, we believe the future of Insights lies in the partnership between AI and human expertise. By combining our healthcare experience with the latest innovations, we help Insights teams use AI to enhance and accelerate their impact.

In this report, you'll find real-world perspectives from pharma leaders navigating the shift. What's clear is that AI isn't a replacement—it's a catalyst for more impactful, insight-led decision-making.



¹ESOMAR, Global Market Research 2023.

N=20 including Transformation, Insights, Business Intelligence & Analytics leaders

10 organisations

Europe & USA

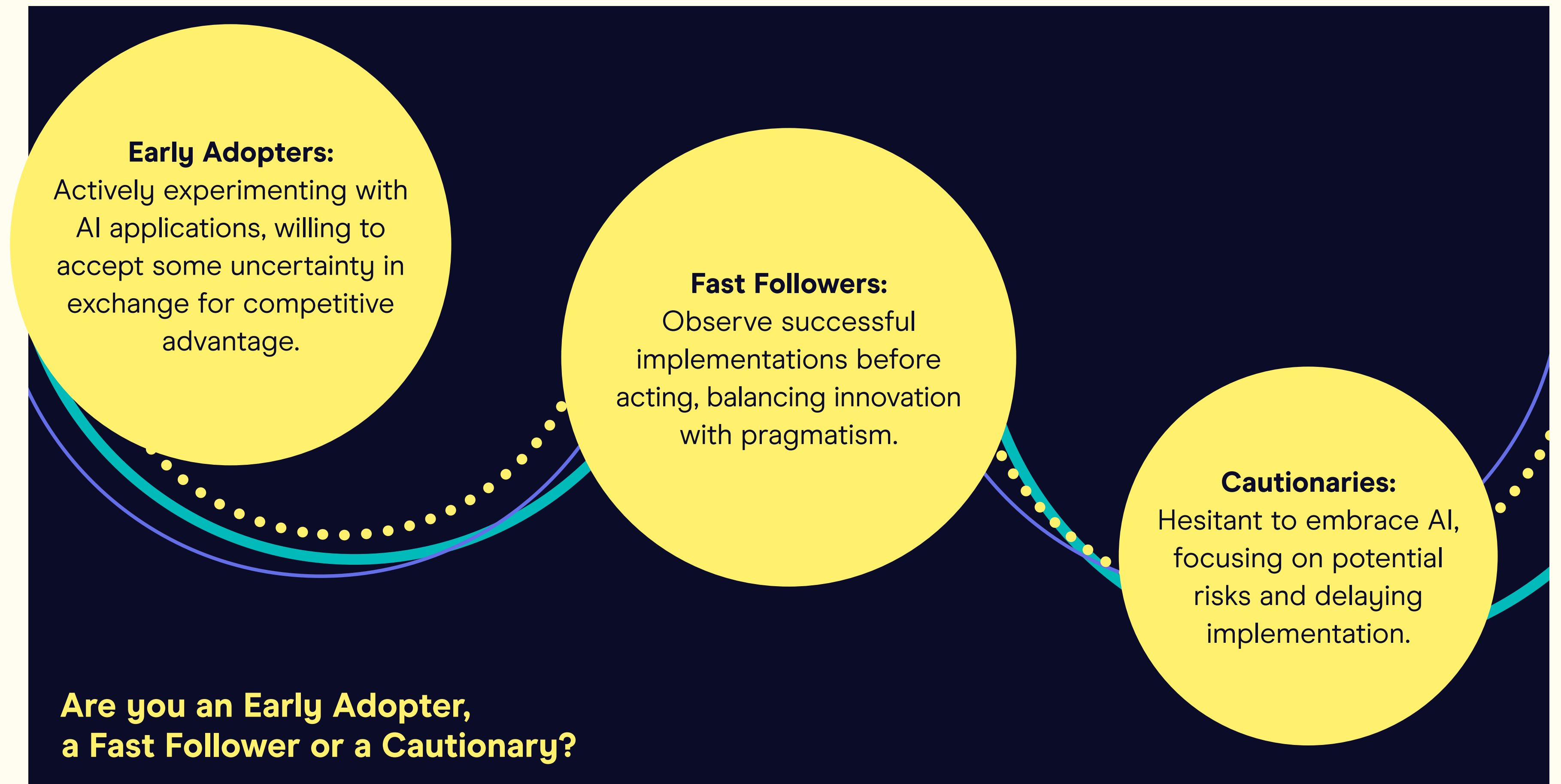
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1. AI ADOPTION IS THE NEW COMPETITIVE DIFFERENTIATOR

AI adoption across pharma Insights teams is inconsistent. Early Adopters, typically led by technically minded individuals, are advancing quickly, experimenting with AI-driven efficiencies and innovations. Fast Followers are watching these pioneers closely, ready to implement tools when they've been tried and tested, while Cautionaries are reluctant to move away from traditional methods.

Teams struggling to speed up AI adoption are coming up against common challenges: limited AI literacy, unclear governance, and transformation initiatives that don't translate to specific actions. While leadership often expects AI integration, without structured guidance and actionable roadmaps, adoption remains fragmented.



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Once people saw it [AI] in action, it clicked. Now they're asking how we can build it into more parts of the business.



Pharma perspectives

AI is mainly being used in medical and clinical functions, with market research lagging behind.

“We have AI efforts happening, but they're mostly in clinical trials and medical insights... There isn't a formalised AI roadmap yet for market research.”

Internal AI tools are mandated but often don't work well or provide helpful answers.

“We're supposed to use [the company's] ChatGPT... but nine times out of ten it says, 'Sorry, I don't have that information.' This is supposed to be our go-to AI tool.”

Some teams are left to figure out AI implementation on their own.

“Leadership has told us to 'use it,' but without direction, it's up to us to figure out how.”

Practical demonstrations unlock enthusiasm for AI and drive adoption.

“Once people saw it [AI] in action, it clicked. Now they're asking how we can build it into more parts of the business.”

Support from leaders can change how teams think about AI.

“Our VP is championing AI. She sees it as the next frontier for insights—not just a tool, but a mindset shift.”

Case Study

HOW A MAJOR PHARMA INSIGHTS TEAM ACHIEVED 100% AI ADOPTION

A major pharma company's global Insights team was curious about AI but unsure how to adopt it safely, securely, and in a way that aligned with brand planning. They needed expert guidance tailored to the realities of pharma.

Day One delivered a 6-week AI Accelerator programme, bringing together Insights leaders, marketers and data scientists. The programme included:

- A hands-on bootcamp to build confidence and capability
- Mapping of current workflows and AI policies
- Implementation of three practical AI tools
- A custom prompt book to embed AI in day-to-day work.



AI adoption rose from 32% to 100%, with measurable productivity gains and a stronger, more confident Insights team ready to lead AI adoption across the business.





Three steps to speed up AI adoption

STEP 1

APPOINT AI CHAMPIONS AND BUILD AN AI ADOPTION ROADMAP

- Define where AI adds the most value within the I&A functions.
- Create governance frameworks for compliance, data security and implementation.
- Provide clear guidelines on how to use AI and run training to boost your team's confidence.

STEP 2

START WITH QUICK WINS TO BUILD MOMENTUM

- Begin with low-risk exercises: get your AI tool to take meeting notes, create report summaries and synthesise secondary research.
- Gradually expand into more creative applications; for example, get AI to turn an internal presentation into an engaging TED Talk-style story.

STEP 3

CHOOSE AN AGENCY TO BE YOUR STRATEGIC AI PARTNER

- Ask them to guide you on AI best practices, implementation and integration.
- Request practical AI use cases to help you gain trust in new approaches.
- Demand transparency about AI's capabilities and limitations so you can manage expectations within your organisation.

2. AI CAN UNLOCK DATA INTEGRATION—BUT ONLY WITH GOOD-QUALITY INPUTS

Insights teams face overwhelming volumes of disconnected data spread across multiple systems, formats and locations. Early Adopters are already using AI to tackle this challenge and to free their teams from countless hours of data wrangling. They recognise AI's potential to connect fragmented data sources, integrating primary research, real-world data, competitive intelligence and financial analytics into a single, actionable ecosystem.

However, the quality of AI insights depends entirely on the quality of data it processes. Poor data management, lack of structured tagging and redundant research practices limit AI's effectiveness. Without better data governance, AI risks amplifying inconsistencies rather than solving them. As the saying goes: "When bad data meets good AI, bad data usually wins."



“When bad data meets good AI, bad data usually wins.”

“

We have so many sources of data, but making sense of it is hard... If AI could help connect the dots and spot divergences, that would be amazing.



Pharma perspectives

Pharma teams struggle to merge data sets into a single, cohesive narrative.

“One of our biggest struggles is bringing together real-world data, market research, and secondary reports. AI could definitely help with that.”

Data management bottlenecks delay insights and hinder AI implementation.

“We used to build dashboards locally in two weeks. Now, IT teams take six months and still don’t deliver.”

Poor data quality undermines AI’s potential.

“You’ve got too much data, dirty data, because investment has not gone into treating data with respect... AI is fed by spreadsheets because data isn’t mastered properly.”

Unlocking AI’s power starts with a cultural shift where departments align, share data, and break the walls of information ownership.

“AI succeeds when data is shared, not siloed — collaboration is the real unlock.”

AI’s power lies in synthesising multiple data sources, not just analysing them in isolation.

“We have so many sources of data, but making sense of it is hard... If AI could help connect the dots and spot divergences, that would be amazing.”



How to get your data ready for AI

STEP 1

STANDARDISE AND STRUCTURE YOUR DATA

- Invest in tagging, categorisation and consistent formatting to ensure your data is as well-structured as possible.
- Use AI-powered cleaning tools to de-duplicate, label and standardise inputs across formats.
- Change data collection practices to be “AI-ready”, e.g. request transcripts as standard from all MR work.

STEP 2

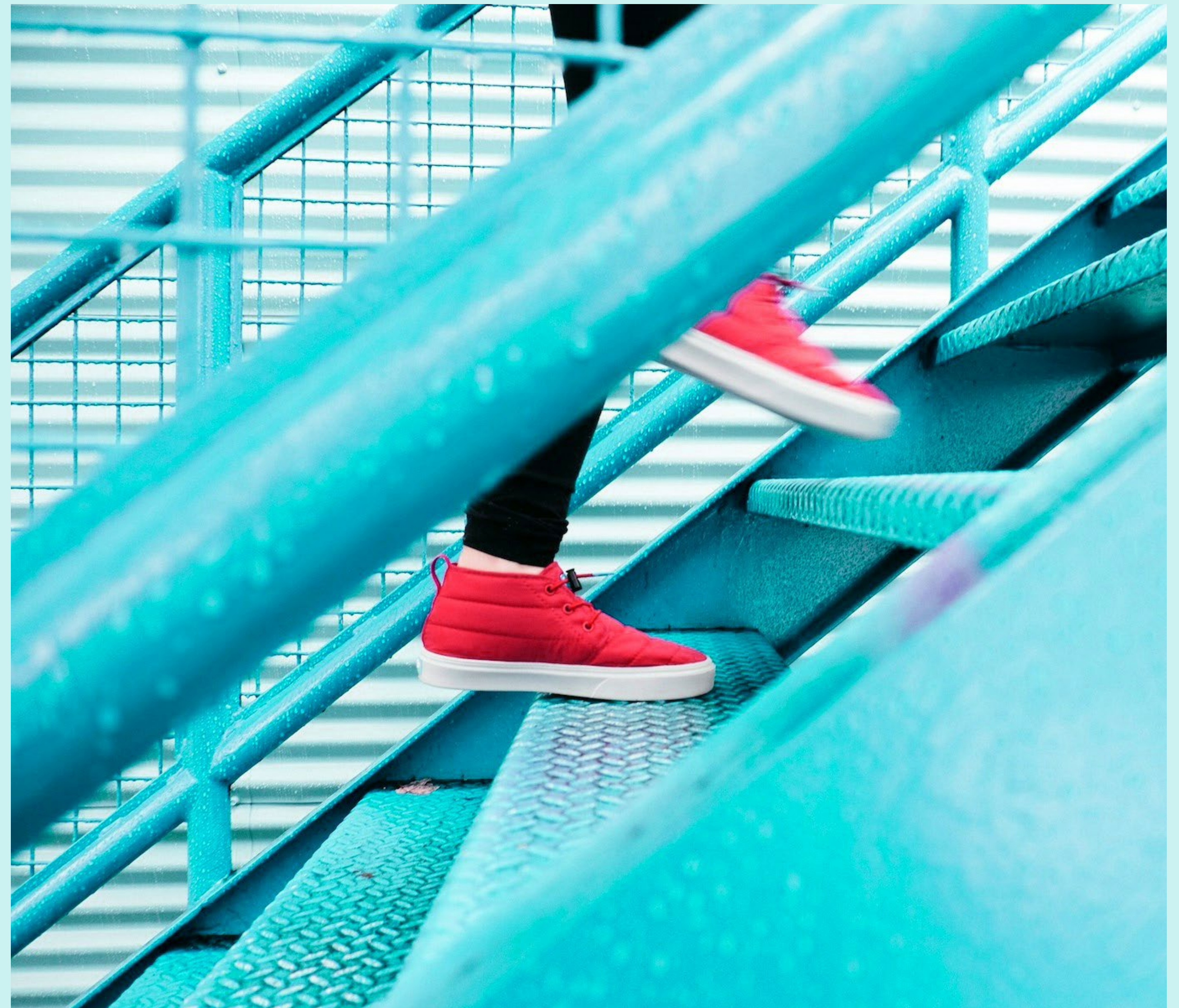
APPOINT DATA OWNERS

- Designate “data guardians” within Insights, Analytics and adjacent functions.
- Train them to ensure consistent data quality, reduce duplication and keep datasets decision-ready.

STEP 3

BREAK DOWN DATA SILOS

- Bring together research, CRM, CI, secondary and real-world data into one accessible environment.
- Prioritise integration over perfection—AI can’t help if the data lives in disconnected systems.



3. BALANCING DATA SECURITY WITH COMPETITIVENESS IS KEY

Data security and intellectual property protection have always been paramount in our industry. In the AI era, these considerations become even more critical as machine learning models require vast amounts of data to generate meaningful insights. Companies must balance AI's potential with the need to safeguard sensitive information and competitive intelligence.

While building in-house AI solutions is the ultimate goal for many pharma companies, this requires significant time and expertise. In the meantime, pharma teams need support from agency partners, yet there is a fear about exposing sensitive data to external vendors. That's why it's vital to vet agencies and select a partner who prioritises data security, compliance and transparency.



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If AI isn't trained on our own data, we can't trust the outputs... We need full control of the data that goes in.



Pharma perspectives

Data security concerns prevent full AI adoption with external partners.

“There's always a reticence about AI... How do we protect our data and our intellectual property?”

Pharma companies want to benefit from AI but without exposing their proprietary data.

“We want the benefits, but we also want to learn from it without exposing everything to an external system.”

Clients prefer AI models trained exclusively on their own internal data.

“If AI isn't trained on our own data, we can't trust the outputs... We need full control of the data that goes in.”

Agency-built AI solutions that pull insights from multiple clients' experiences are seen as unreliable.

“Agency AI models that pull from multiple clients' experiences won't work for us... The reliability and explainability of outputs matter too much.”

Some organisations are already investing in their own AI models.

“We're under the Customer & Digital Strategy team, and they're already building AI-powered solutions in-house... they believe they have the capability to do it without external agencies.”



Case Study

TURNING 10 YEARS OF DATA INTO A FUTURE-READY BRAND NARRATIVE

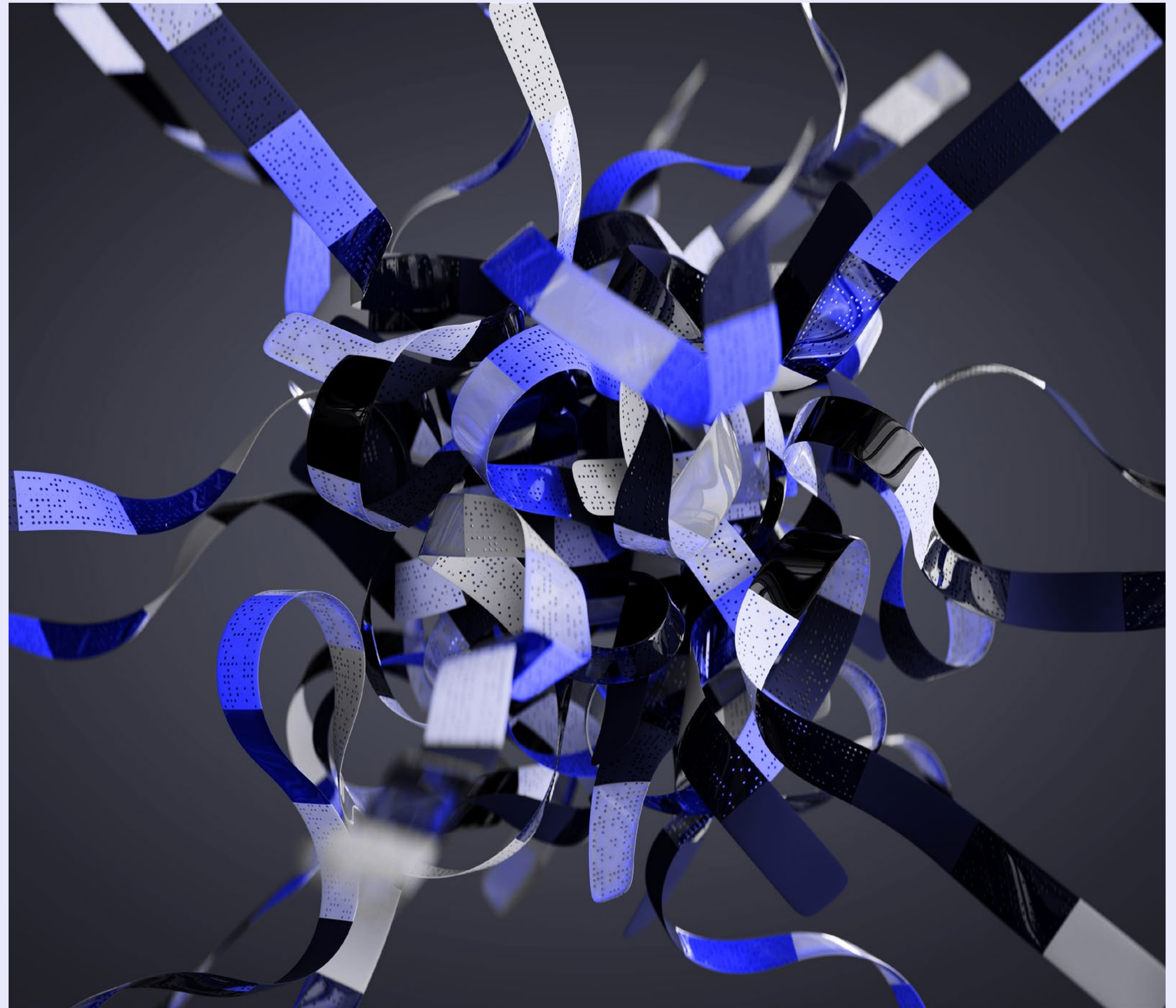
A global pharma team needed to refresh the brand narrative for a mature asset—drawing on over a decade of research, HCP interviews and strategic materials. The challenge? How to do it quickly, securely and without handing over sensitive IP.

Partnering with Day One, the team developed **BrandBrain**—a custom AI model trained exclusively on their internal data, built in a secure environment. In just three months, the team:

- Integrated 14,000+ data points and conducted 52 HCP interviews
- Activated 16 AI agents to analyse, connect and shape the narrative
- Delivered messaging tailored by speciality and strategic need
- Gained full ownership of the model for future refinement and use.



With **BrandBrain**, the team transformed a decade of siloed data into a strategic asset—unlocking *speed, consistency and control* without compromising *security*.





Agency selection checklist: Finding the right AI partner

When selecting an agency partner that will enhance your AI capabilities while maintaining data security and integrity, look for these qualities:

INTEGRATION & COLLABORATION

- ✔ Works as an AI integration partner—complementing, not competing with, your in-house teams.
- ✔ Connects AI outputs to your business questions, brand plans and analytics workflows.
- ✔ Helps stakeholders interpret and act on AI-generated insights with confidence.

CAPABILITY & EXPERTISE

- ✔ Demonstrates experience applying AI to market research, not just building models.
- ✔ Offers hands-on support for prompt design, model validation and optimisation.
- ✔ Provides tailored training for Insights teams to use AI tools effectively and responsibly.

COMPLIANCE & TRANSPARENCY

- ✔ Offers regulatory-compliant AI methodologies that align with your requirements.
- ✔ Designs workflows prioritising data privacy and intellectual property protection.
- ✔ Can help develop internal AI ethics frameworks supporting responsible adoption.

4. POWERING STRATEGIC IMPACT: AI'S ROLE IN ELEVATING INSIGHTS

AI is set to redefine the role of Insights teams in pharma, shifting from siloed research projects to AI-powered knowledge management and strategic consulting. Rather than replacing Insights professionals, AI presents an opportunity to further promote their role as strategic advisors who drive significant business impact. However, success will require proactive adaptation.

“To remain indispensable, it’s imperative that Insights teams take ownership of emerging AI systems.”

Insights leaders recognise that they are at a crossroads: embrace AI to elevate their teams and demonstrate value, or risk being sidelined as other functions start directly accessing AI-driven insights. To remain indispensable, it’s imperative that Insights teams take ownership of emerging AI systems.



Skills in Demand for the Next-Generation Insights Team

STRATEGIC CONSULTANCY

✔ Insights aligned to commercial action

CROSS-FUNCTIONAL COLLABORATION

✔ Integration across marketing, medical, access

AI FLUENCY

✔ Confident use and integration of AI tools

AGILITY

✔ Flexibility across therapy areas, markets, and data types

BUSINESS STORYTELLING

✔ Clear, persuasive communication of insights

CHANGE LEADERSHIP

✔ Coaching teams through AI-driven transformation

EXECUTIVE INFLUENCE

✔ Championing Insights as a growth engine

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Now that AI is handling the grunt work, we finally have time to think more critically about what the data actually means.



Pharma perspectives

Insights professionals are under increasing pressure to prove commercial value.

“Market research and insights, even CI—it’s considered a cost component. There’s financial pressure to cut expenses... Insights work is not (always) considered an investment.”

Companies are consolidating Insights functions for greater efficiency, reducing dedicated roles for brands.

“We are pooling all market researchers into one team, with laser focus on insights... Previously they were spread out in brand teams.”

Routine tasks limit strategic thinking, reducing the impact insights professionals can have.

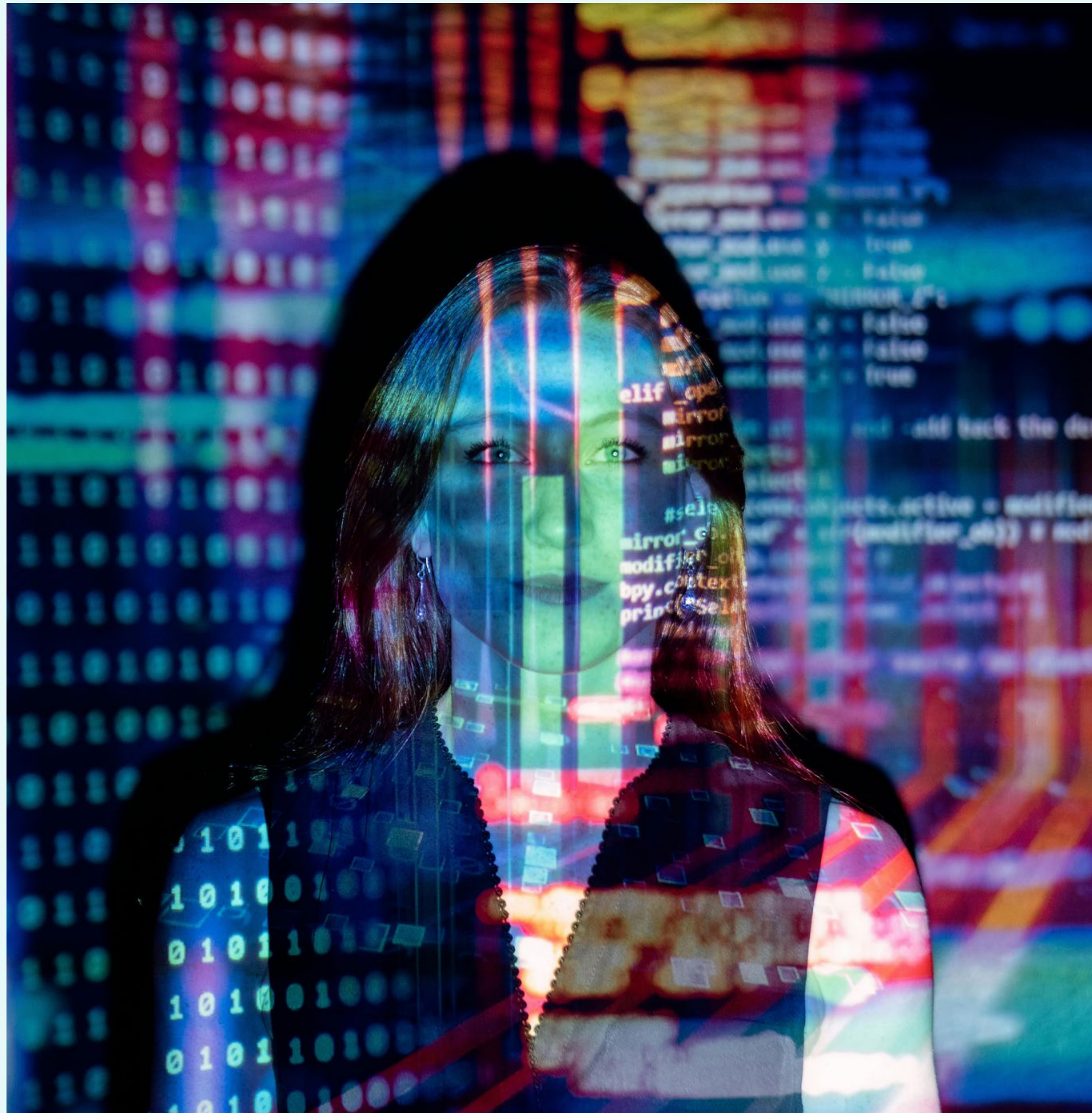
“We spend a lot of time building models, putting spreadsheets together and probably not enough time just with the brain going, ‘What does that actually mean?’”

Teams that have implemented AI have increased their capacity for deeper analysis.

“Now that AI is handling the grunt work, we finally have time to think more critically about what the data actually means.”

AI will shift Insights roles towards business strategy.

“We’re looking to leverage AI and self-service tools so that business partners don’t need to come to us for basic insights—they can extract data quickly on their own.”



Case Study

TURNING RESEARCH INTO A STRATEGIC ASSET WITH AI

A global immunology client had invested heavily in research across multiple brands—but struggled to extract value from it. Insights were buried in decks and portals, making reuse difficult and slowing down decision-making.

Day One deployed DeepSights, a secure, GenAI-powered knowledge assistant trained on the client's own data. It enabled teams to:

- Ask natural language questions and get instant, source-linked answers
- Surface insights across brands and functions
- Reduce duplication and speed up responses.



By unlocking existing knowledge, Insights shifted from support function to strategic partner—boosting efficiency and driving smarter brand planning.



Empowering Insights teams with AI

USE AI TO ELIMINATE TIME-CONSUMING MANUAL WORK

- Find areas where AI can handle repetitive tasks, freeing your team to focus on higher-value strategic consulting.
- Train your team in AI prompt engineering to ensure they get the best results.



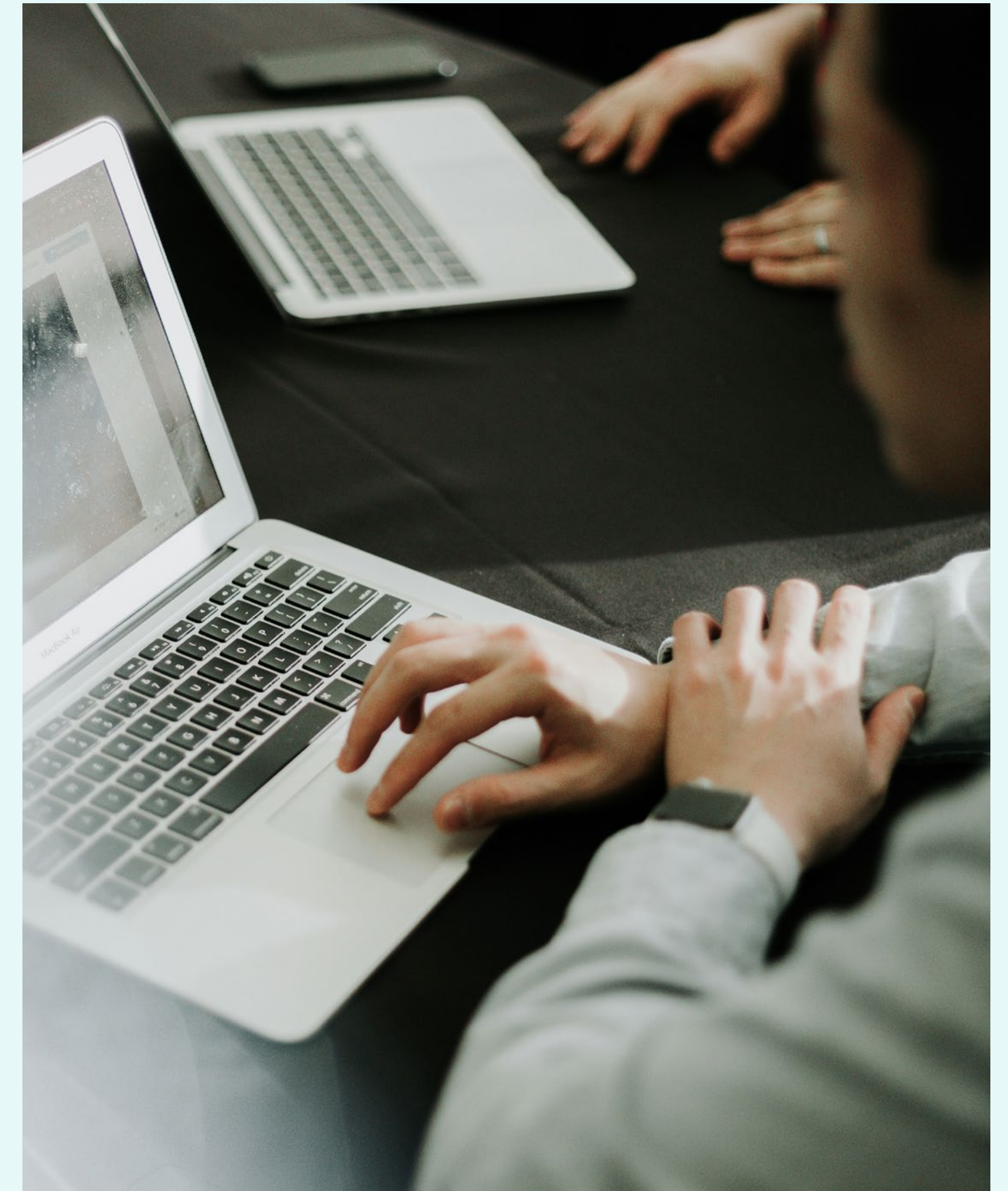
‘Prompt engineering’ is the art of asking the right questions to get the most valuable answers from AI.

REPOSITION YOUR INSIGHTS TEAM AS AI-ENHANCED STRATEGIC ADVISORS

- Make sure your insights team controls the AI-powered systems that manage and retrieve information so they remain central to decision-making.
- Educate teams on how AI can amplify insights rather than replace human expertise.
- Use AI to combine primary and secondary data sources, and to spot patterns.

DEMONSTRATE CLEAR ROI FOR INSIGHTS

- Link your insights work directly to business impact, commercial outcomes and competitive advantage.
- Run a showcase project on a key brand to demonstrate the strategic uplift of insights with AI.
- Seek out cross-functional initiatives and make sure Insights has a seat at the table.



CONCLUSION

As this report shows, AI is already beginning to reshape how pharma teams access, generate and apply insights—and it will undoubtedly transform the way Insights and Analytics functions operate in the years ahead. This shift isn't about replacing established best practices. It's about enhancing them to unlock more value from your data and create space for deeper, more strategic thinking.

Such transformation doesn't come from experimentation alone. It requires structure, clear use cases, and a trusted partner to help you embed AI in a way that works for your team and your organisation.



At Day One Strategy, we help Insights teams move from pilots to practice. Whether it's building secure, AI-powered tools, making past research more usable, or equipping teams to use AI with confidence—we focus on turning ambition into action.

The next step in your AI journey

Early Adopters: Formalise your AI experimentation with a structured evaluation framework that measures ROI and helps turn successful pilots into scaled solutions.

Fast Followers: Identify three AI use cases with demonstrated success elsewhere in pharma, then develop a 90-day implementation plan with clear KPIs.

Cautionaries: Start small by implementing one AI tool that addresses a specific pain point in your current workflow, supported by proper training and governance.



Let's talk about how to make AI work for your Insights team



To explore how we can support your AI journey, please contact:

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