

# The Outcomes-Based AI Playbook

How to Deliver AI with Purpose: A Strategic Framework for Real Business Impact



AI experimentation laid the groundwork.  
Now, it's time to deliver results.



This guide shows you how to build your AI  
adoption strategy to ensure you get the  
outcomes you want.

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# Introduction

The widespread availability of generative AI has sparked experimentation across industries. Organizations have built prototypes, tested use cases, and gained valuable insights into AI's potential. However, as the technology matures and budgets tighten, companies are under increasing pressure to focus on high-impact use cases and demonstrate tangible returns on their AI investments.

This brings us to a critical juncture. Businesses must learn to transition from exploration to execution – or they risk being left behind. Leading organizations like Johnson & Johnson have already started shifting “away from broad experimentation [...] to a more focused approach”, driven by measurable outcomes.

Outcomes-based AI is a systematic approach to AI adoption that starts with the end goal in mind. Rather than implementing AI technology and hoping for results, this approach starts with clearly defined business objectives and ensures each AI initiative drives meaningful impact.

An outcomes-based approach helps organizations:

- Prioritize high-value use cases
- Align AI initiatives with business strategy
- Measure and demonstrate concrete returns
- Scale successful implementations

This white paper offers a practical framework for the transition to outcomes-based AI implementation. Based on real-world case studies and best practices, it serves as a roadmap for organizations looking to progress from AI experimentation to achieving lasting business impact.

1: <https://www.wsj.com/articles/johnson-johnson-pivots-its-ai-strategy-a9d0631f>

# Common Pitfalls in AI Implementation

As organizations move beyond the initial experimentation phase with AI, they often encounter predictable obstacles that undermine their ability to achieve meaningful business impact. Recognizing these pitfalls is crucial for developing a more effective approach to AI adoption.



## Starting without clear objectives

Many organizations start integrating AI without first clearly establishing their goals and success criteria. This often results in projects that fail to generate business value.

**For example:** A telecom company deploys an AI chatbot just because it's popular, but fails to define objectives such as improving customer satisfaction or reducing support tickets. The chatbot provides irrelevant responses, which frustrates customers and increases the workload for human agents.



## Lack of methodical prioritization

Although experimentation can be valuable in the early stages of adopting AI, organizations must eventually prioritize their efforts based on a systematic evaluation of business impact and feasibility.

**For example:** A company has two potential AI projects: one that could reduce inventory forecasting errors by 20%, and another that could automate a routine HR task. Despite the inventory project's more significant business impact, the HR project is prioritized due to the HR manager's enthusiasm.



## Measuring too late or poorly

Many projects only measure outcomes after implementing new AI tools, making it impossible to understand the technology's actual impact. Teams also often have difficulty defining the correct metrics to measure success.

**For example:** A manufacturing company implements an AI-driven predictive maintenance system without first establishing baseline metrics such as current equipment downtime rates and maintenance costs. Later, they struggle to quantify the system's impact on these KPIs.



## Insufficient user engagement

AI teams often don't consult enough with line of business end users. This results in technical solutions that fail to address real-world user needs and expectations.

**For example:** An insurance company develops an AI-powered claims processing tool without consulting the adjusters who will use it. Because the tool hasn't been tested thoroughly with the subject matter experts, it fails to be accurate in all cases, and therefore it is not widely adopted, and end users return to their manual processes.

**These pitfalls share a common thread: they reflect a technology-first rather than outcomes-first approach to AI implementation.**

# Outcomes-Based Strategizing

Teams need to start thinking about the specific results they want to achieve when implementing new technology. The question isn't "How can we use AI?" but rather "What business outcomes do we need, and how can AI help us achieve them?"

## Define specific goals

Translate broad aspirations into concrete, measurable objectives. For instance, what does it mean to "increase ROI" through new AI features? Are you looking for additional subscription revenue from premium features, an expanded customer base, or increased usage of existing services? The same goes for internal, productivity-boosting tools. "Higher productivity" could mean faster task completion, fewer errors, or improved employee satisfaction with workflows.

Being specific about your desired outcomes serves three critical purposes: It helps you choose the right AI solutions, guides your implementation decisions, and provides clear criteria for measuring success.

### Revenue-focused metrics:

- Faster application processing to increase conversion rates and customer onboarding
- Additional subscription revenue from premium AI features
- Expansion of customer base through improved service capabilities
- Increased usage of existing services (measured in daily/monthly active users)
- Higher customer lifetime value through better retention
- New revenue streams from AI-enhanced products or services

### Productivity-focused metrics:

- Scaling critical workflows without having to increase headcount
- Time reduction for specific tasks (e.g., hours saved per employee per week)
- Increased throughput (cases processed, documents reviewed, queries handled per day)
- Error rate reduction in critical analysis
- Employee satisfaction scores for workflow improvements
- Reduced time-to-competency for new hires

## Clearly define what you are measuring

When measuring outcomes, it's not important to be 100 percent accurate all the time. What's more important is that you build a business case, so that everyone understands what is being measured, and that you ask the same questions before and after implementation. Clearly defined metrics and goals serve as your North Star, guiding implementation decisions and demonstrating tangible value to stakeholders.

# Achieving Your Desired Outcomes: Six Examples

ZEITUNGS ONLINE

## Engaging younger audiences with quality content

- **Goal:** Transform quality journalism into a modern user experience that attracts and retains subscribers, particularly younger audiences.
- **Solution:** AI-powered features that capitalize on verified content and professional curation to offer personalization while maintaining journalistic standards.
- **Impact:** Enhanced user experience (measured by time on site and return visitor rate) that maintains quality standards while meeting modern expectations, creating clear differentiation from traditional news outlets.

credX

## Boosting financial analyst productivity and creating new revenue in lending

- **Goal:** Improve lending analyst productivity to process more loans faster by automating the most manual aspects of loan origination.
- **Solution:** AI tool that automates repetitive analysis of borrower paperwork, converting commercial real estate deal documents into accurate credit memos, enabling analysts to focus on more complex, high-value tasks.
- **Impact:** 80% time reduction for due diligence, improved job satisfaction, and a new revenue stream by commercializing the solution for other lenders.

MANZ

## Transforming legal research efficiency

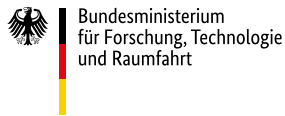
- **Goal:** Streamline labor-intensive legal case research while maintaining accuracy.
- **Solution:** AI-powered research agent that helps lawyers quickly find and analyze relevant cases and precedents across 3M+ documents, generate summaries, and draft contracts.
- **Impact:** 77% boost in search accuracy, 20%+ accuracy over prior methods, reduction of research time from days to hours, and creation of additional subscription revenue.



## Accelerating insurance sales through instant information access

- **Goal:** Reduce time spent on information gathering and enable both internal sales and external brokers to convert more prospects into paying policy holders.
- **Solution:** AI chatbot that synthesizes complex policy information, replacing lengthy support calls with quick self-service, maximizing speed-to-quote and increasing conversion rate.
- **Impact:** Improvement in response times, increased broker independence, reduced support load, and a new foundation for scaling sales operations with the existing team.

Beauftragt durch:



## Modernizing public sector funding applications and approvals

- **Goal:** The German Federal Ministry of Research, Technology, and Space (BMFTR) manages several million euros in annual project funding, adhering to complex regulations contained in a 200-page Project Funding Manual.
- **Solution:** AI assistant that helps application analysts answer questions about project funding rules in natural language, meeting high data protection and usability requirements, complying with all aspects of C5 cloud security criteria, and providing responses in under three seconds.
- **Impact:** The AI assistant has become an essential daily tool for staff, resolving 1000 queries each week without additional staff resources, reducing issue resolution time, and enhancing transparency via verifiable source citations and references.

# AIRBUS

## Transforming real-time planning and decisioning

- **Goal:** Enhance mission-critical decision-making for the German Armed Forces through AI, ensuring military-grade reliability aligned to NATO standards.
- **Solution:** AI for Tactical Chat in Simulation Systems (KITCH), integrating agentic LLMs, reinforcement learning, and retrieval augmented generation (RAG) for real-time tactical support while mitigating hallucinations. Through a satellite feed and chat interface, leaders and teams are able to get actionable, context-aware guidance in evolving scenarios to make critical decisions impacting missions and personnel safety.
- **Impact:** Supports deeper insight generation, multi-perspective reasoning, and adaptive situational awareness while significantly reducing the risk of hallucination or misleading information.



# Pair Quantity with Quality Metrics

To fully understand the impact of your AI implementation, it's essential to track both quantity and quality metrics. This dual approach provides a complete picture of what changed and why.

**Quantity** (like response time or click-through rate) is usually easy to measure and shows the degree to which usage, efficiency, or output has increased or decreased after introducing a new AI feature.

**Quality** metrics like user satisfaction require more effort (e.g., developing polls or conducting user interviews) and provide insight into the reasons behind these trends and whether the changes benefit users.

Consider a documentation tool where usage metrics show increased time spent on the platform. At first glance, this seems positive – more engagement! However, quality metrics might reveal that users spend more time because they find the new AI features confusing and must make multiple attempts to find what they need.



## Measuring revenue impact: a practical example

Imagine a software company adding AI-powered analytics features to their existing product. They want to increase revenue through premium subscriptions.

**Baseline measurement:** Before launch, they have 1,000 active users with 15% on premium plans (\$50/month), generating \$7,500 monthly recurring revenue from premium features.

### After 6 months:

- Premium subscription rate increased to 28%
- Monthly recurring revenue from premium features: \$14,000
- Net revenue increase: \$6,500/month (\$78,000 annually)

### Quality metrics:

- User satisfaction surveys show 85% find the AI features "very helpful"
- Customer support tickets related to analytics decreased by 40%
- User retention for premium subscribers increased from 92% to 96%

The quantity metrics prove the revenue impact, while quality metrics confirm that users genuinely value the features.

# Overview: How to Measure Outcomes

Based on what we've learned so far, the three most important aspects to keep in mind when using an outcomes-based measurement approach are:

## Establish clear baselines

A baseline is your starting point measurement: the current performance level before any AI implementation. Without knowing where you started, you cannot demonstrate improvement or calculate impact. Ensure everyone has a shared understanding of what task you're measuring.

## Choose complementary metrics

Pair quantitative measures with qualitative insights:

- |                                     |   |   |
|-------------------------------------|---|---|
| Quantity: Number of queries per day | → | Quality: User satisfaction with responses       |
| Quantity: Time saved per task       | → | Quality: Impact on work quality and error rates |
| Quantity: Feature adoption rate     | → | Quality: User feedback on feature value         |

## Keep measurement simple and consistent

Use identical methods to track the same metrics before and after implementation. Changing the measurement approach midway through a project makes comparisons impossible and undermines your ability to prove concrete impact.

Focus on metrics that matter to your stakeholders. For example, executive leadership cares about revenue impact and cost savings. Department heads want to see productivity gains and employee satisfaction, and end users want to know if their daily work becomes easier or more effective.

# The Outcomes-Based AI Playbook

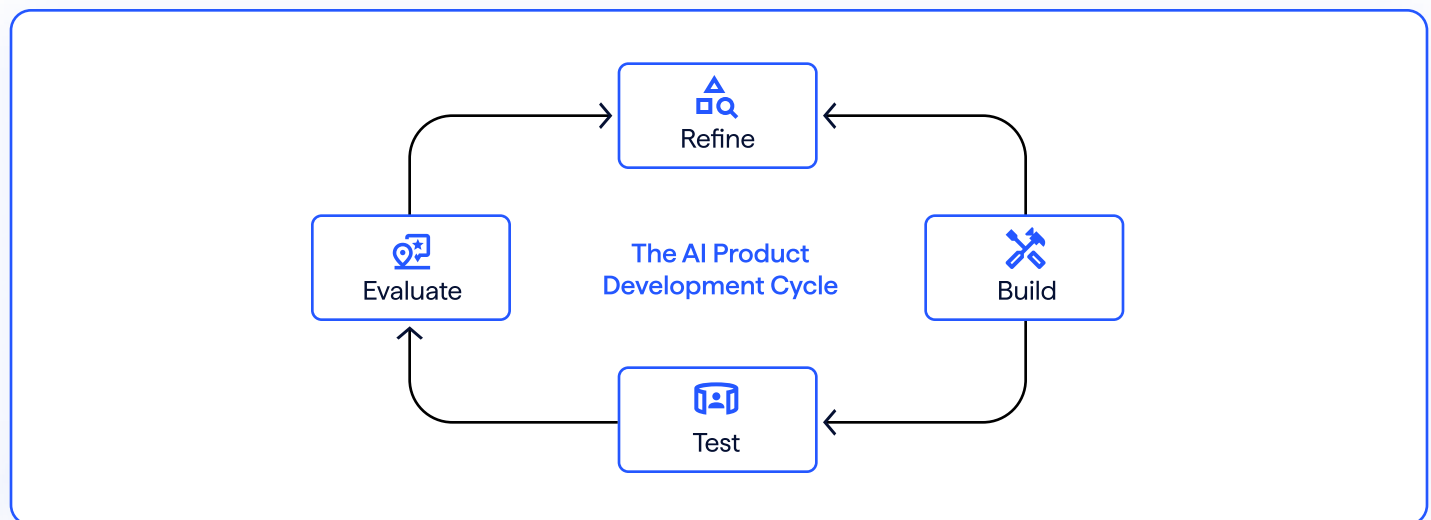
Successfully implementing outcomes-based AI requires managing multiple interconnected elements simultaneously rather than focusing on technology alone. The following principles guide organizations that consistently deliver meaningful results from their AI investments.

## Build for results

Rather than starting from scratch, begin with proven frameworks and platforms. [deepset](#) specializes in this area, offering the open-source AI development framework [Haystack](#) and [the deepset AI Platform](#), both of which incorporate the best AI development practices and customizable templates to get you started. With fine-tuned AI development tools and a platform that brings together all of their organization's use cases, [AI teams](#) can deliver results faster. Then, they can focus on solving user problems instead of grappling with technical infrastructure.

## Iterate with purpose

Release features in phases to understand their impact at different scales. Test, measure, and refine. A [central platform](#) is particularly helpful here, as it helps you maintain oversight of different versions and iterations of your project and determine what works and what doesn't. When something doesn't work, acknowledge it and adjust your approach. Each iteration should bring you closer to your defined outcomes.



## Keep users central

Talk to users throughout the process, not just before and after implementation. Subject matter experts understand their domains better than any AI engineer. Their insights throughout development ensure you're building solutions that actually solve real problems.

## Engage stakeholders effectively

Create communication channels where everyone can contribute meaningfully, regardless of technical knowledge. Focus discussions on outcomes and user experience rather than technology details.

## Measure intuitively

Develop metrics that make sense to everyone involved. Present them clearly and track them consistently. Use measurement results to guide decisions rather than just report progress.



deepset delivers AI with purpose, helping organizations translate powerful AI capabilities into reliable business outcomes. We facilitate the transition to an AI-driven business mindset through three key elements:

- Our popular open-source AI orchestration framework, Haystack, provides the most stable and production-ready building blocks to create AI applications of any complexity – from customized RAG to powerful Agents – at scale.
- Our deepset AI Platform provides intuitive visual tooling, workflow builders, security controls, and autoscaling capabilities to build, test, deploy and monitor AI applications and agents, fast and repeatably.
- Our world-class AI engineering team works directly with your team and SMEs, bringing deep expertise across diverse industries and deployment scenarios, from cloud to on-premise environments. They ensure your AI applications work seamlessly in your specific technical and business context to achieve their outcomes.

With deepset, teams can focus on delivering measurable business value without getting lost in endless experimentation. Our tools and services provide customers with a foundation for building AI applications that drive consistent results in production.

Learn more at [deepset.ai](https://deepset.ai).

