



AI has the potential to revolutionize work, bridge the gap between data to insights, and create new business models. However, much of its potential remains unrealized.

AI requires a strong strategy in three key areas:



Technical capabilities

Core technologies and infrastructure, including AI-powered products, platforms and the data that underpin them.



Governing practices and structures

Operational changes that enable teams to focus on high-value initiatives and responsibly harness AI.



Organizational and cultural characteristics

Behaviors that accelerate the value of AI-enabled work.

Each decision must be tailored to your organization's unique context, as there's no one-size-fits-all approach.

Drive measurable AI success

Thoughtworks has developed a framework for AI transformation, encompassing technical, procedural, and human-centric changes for AI success at scale. This



When organizations reach out to us for support with their AI transformation journey, it's usually because they're missing one or more of three core capabilities:

- AI-powered digital products that start with clearly defined outcomes in mind. Products are viewed as living systems so teams ensure products are - and remain - technically feasible, financially viable, desirable for customers and have great usability.
- A scalable AI platform for developing new AI models, products and use cases and solving emerging challenges throughout the business.
- A robust data foundation with the essential capabilities for preparing data for AI use cases, and pipelines for the continuous delivery and ingestion of AI-ready data.

These three inextricably linked capabilities form the foundation of an organization's AI readiness, making them the core of our AI transformation framework.

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any challenges and gather invaluable user feedback to maximize its success.

- AI solution development: Carefully plan and align all aspects of technical solution engineering and delivery when constructing robust AI tech stacks.
- Human-AI experience design: Build AI products in ways that augment human potential and enable both AI and humans to get the most from one another in natural, engaging ways.
- AI security and compliance reviews: Assess the risks that a new product may expose your organization to and embed the right security and compliance guardrails within your products.
- AI product scaling: Once you've seen value from POCs, iteratively scale them into value-generating products.

Together, these decisions enable a holistic, strategic approach to AI-powered product creation that delivers maximum value and precisely solves the challenges the product was devised to tackle.

GenAI-powered chatbot optimizes customer and employee experience for a leading global bank

time saved when obtaining customer and product insights
reduction in online business processing time
improvement in customer satisfaction levels

When a global commercial bank faced challenges with personalization, integration and data accessibility in its customer service chatbots, Thoughtworks stepped in to help.

After analyzing key pain points in its chatbot journeys, we prototyped and produced a new generative AI (GenAI) powered agent and a dialogue framework that can be used with any fine-tuned language model.

The bank's large language model (LLM) solution has optimized the overall accuracy, flexibility and scalability of its chatbot services — improving experiences for internal and external customers. Now, anyone can access the information and answers they need faster and more conveniently than ever before.

A platform-based approach to AI capability development helps organizations scale and evolve their capabilities continuously. Thoughtworks builds resilient AI platforms that enable seamless addition of new use cases while incorporating robust and scalable AI evaluation methodologies. This ensures continuous monitoring, optimization and alignment of AI models with business objectives, empowering teams to create value confidently and effectively.

AI service platforms provide the foundation for organizations to scale out diverse AI use cases and solve new business challenges. But those foundations should also be supported by:

- Model evaluation, performance optimization and monitoring to ensure the continuous improvement of AI

performance and help organizations make sure their AI models are delivering the right outcomes for all users.

- Workload optimization to keep AI costs under control and maximize ROI from all AI workflows.
- Machine learning operations (MLOps) to embed practices and processes that simplify machine learning workflows

All AI models and use cases demand high-quality data.

Whatever an organization's data estate looks like, if they want to build AI readiness, we recommend investing in and developing:

- Data platforms that improve how teams manage, structure and govern data — increasing accessibility and making it simple to train AI models using relevant data sets and sources.
- Synthetic data to augment first and third-party data sets, helping organizations build up high volumes of relevant data to power complex AI training and genera

The solution automates schedule generation, saving time for laboratory managers and enabling multiple runs with reduced time consumption. Now, the company has dashboards in place that provide visibility of testing bottlenecks — helping to maximize capacity utilization while accelerating testing processes.

These three pillars — AI-powered digital products, AI platforms, and a strong data foundation — are inextricably linked. While they carry different demands, these elements work together to achieve a singular goal: an organization's high level of AI readiness.

For that reason, they should never be approached in isolation. Instead, organizations should take a holistic view and ensure the steps taken in each area align with those taken in the others. Only then can organizations start to unlock the full transformational value of AI.



No matter how powerful or innovative they are, AI technical capabilities by themselves aren't enough to drive transformation throughout a modern enterprise. Proactive planning and governance are needed to effectively evolve the organization's operating models, maximizing AI value and ensuring its responsible use.

If organizations want to harness the power of AI to evolve in meaningful, lasting ways, we recommend supporting core technology development with operating model change.

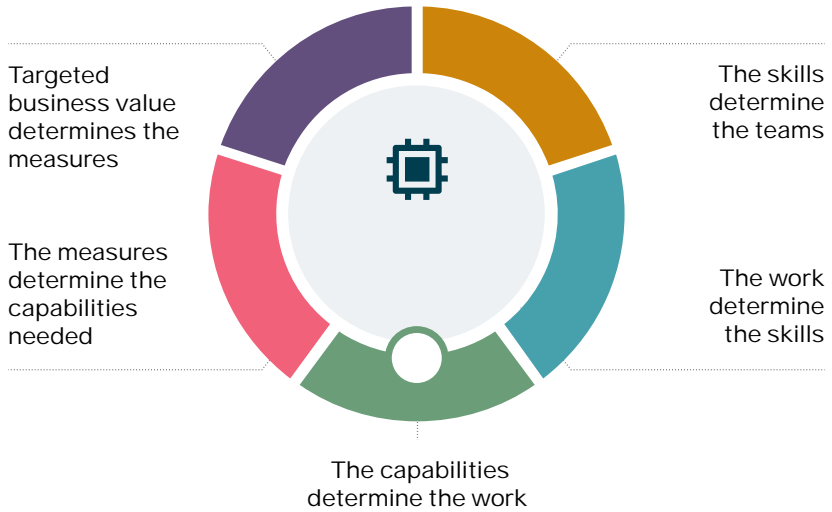
Operating models bridge strategy to execution. So, when we help organizations evolve their operating models to support their AI transformation, we ensure tactical actions align with strategic intent.

The process can be broken down into five steps:

- D** Define the business value you want to achieve with AI. That might be differentiated customer services, greater internal efficiency, deeper insights, or any other strategic goal.
- E** That value definition defines the core technical AI capabilities you develop. You choose the right models, platforms and capabilities required to deliver the value you seek.
- F** Your new capabilities shape how teams, processes and workflows must be structured to get the most from AI. This forms the core of your new AI operating model.
- G** Your new workflows determine the skills your people need to adapt to new ways of working and perform in line



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testing, we are implementing a chatbot code assistant, autopilot, and a code assistant playground.

These new AI-powered capabilities we are implementing are enabling the organization to accelerate developer and tech stack onboarding, increase productivity, accelerate delivery and automate code quality across the development lifecycle.

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The other pillar that must sit alongside operating model evolution is responsible technology. Responsible technology practices are pivotal to the success of any AI project, providing guardrails to minimize risk, maintain regulatory compliance and ensure ethical standards are continuously upheld.

By integrating operating model change with responsible technology practices, organizations can harness AI to maximize its operational impact while ensuring regulatory compliance and effective risk management. This holistic strategy ensures that AI not only drives efficiency and innovation but also aligns with ethical standards, paving the way for sustainable and responsible AI transformation.

Responsibly harnessing the power of AI for life sciences

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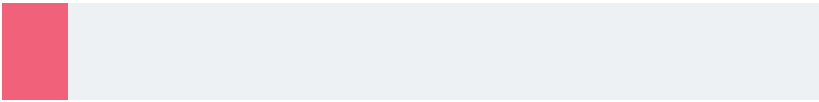
Ultimately, it's humans that determine the success and value of AI. So, organizations must make changes to support people and help them adapt to a new, AI-enabled world.

The final dimension of Thoughtworks' holistic framework for AI transformation embeds a set of desired organizational and cultural characteristics and behaviors to create a fertile environment for positive, lasting change.

These changes span four areas:

D Embracing value-based ROI thinking

We stressed the value of using AI-powered products as a core technical capability in your AI strategy. Product thinking requires a focus on customer experiences, business outcomes and a return on your AI investments. To ensure inv. 7 (1) 7rtmtur i8.2 (k) 13.1 Rus. -5.7 (t)



F Augmenting AI-enabled workforces

In most use cases, AI isn't a direct replacement for human intelligence. Instead, organizations should apply it in ways that augment and extend human capabilities.

Thoughtworks helps our clients achieve this through:

- AI-enabled software engineering, where AI is intelligently woven into engineering workflows to accelerate delivery and help developers achieve more in less time.
- Augmented decision-making capabilities that give people data-driven suggestions and intelligence to help them make informed, value-driving decisions at speed.
- Continuous learning cultures, where humans and AI constantly evolve how they interact with and enable each other.

G Enabling human-centered experiences and change readiness

Applying AI throughout your operations can mean big changes for many of your people. Change of that scale must always be carefully managed. To ensure you bring people along with you on your AI journey rather than simply mandating change:

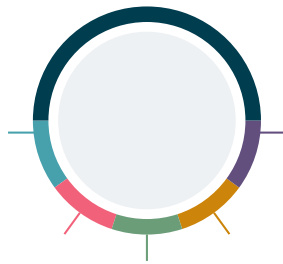
- Make your vision clear so everybody understands what you're trying to achieve with AI, how they can help and how AI could benefit them personally.
- Incentivize innovation and encourage teams to experiment and find the best ways to apply AI in their own workflows.
- Empower leaders and teams to drive change themselves and take a consultative role in your AI plans.

Augmenting human expertise in an industry built on craft, tradition and deep experience

- Amplified deep human expertise with a new recipe-generating AI model
- Created an award-winning new whisky for a leading distillery

Working in partnership with Thoughtworks, Swedish distillery Mackmyra created the world's first whisky developed completely by machine learning.

We used previous recipe data, tasting notes, ratings of previous recipes, expert reviews, customer reviews and cask information to make our model understand Mackmyra whisky. Then, we created a framework that can innovate this space, creating new whiskies that are unique but taste excellent.



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Accelerating processes and delivery

AI brings incredible opportunities to automate tasks and accelerate virtually any process or workflow.

By taking a deep dive into your organization's processes, you can locate bottlenecks and apply AI in ways that break them down — enabling everyone to achieve more, work more efficiently and deliver faster.

Results we've achieved:

- 20% time savings for customers and product managers to obtain customer and product insights at a global bank.
- 75% increase in operational efficiency at a pharmaceutical company.
- 2 to 5 times speed gains from parallelizing various tasks and optimizing code at a large pharmaceutical company.



Managing and mitigating risk

AI is great at detecting patterns from historical data, enabling organizations to make accurate forecasts about the future and anticipate risks before they threaten their operations.

Apply AI in a measured way, and manage risk in line with your unique risk appetite — balancing opportunities and threats to help make the best decisions for the future of your business.

Results we've achieved:

- Thoughtworks has partnered with the United Nations to lead and promote responsible tech practices around emerging technologies such as AI, and help organizations across the world avoid unplanned negative impacts from their use.



Reimagining business models

Beyond the other five impacts, AI brings opportunities for



No two AI journeys are the same. While proven frameworks and methodologies for change are highly valuable, organizations have unique needs that are often best addressed in a bespoke way.

The true strength of Thoughtworks' holistic framework for AI transformation is that it enables us to support any organization's AI journey, no matter where they're starting from or what they want to achieve.

Most AI evolutions don't start from scratch, but build on existing investments in cloud, data or digital initiatives. Thoughtworks respects an organization's existing ecosystems and realigns them with the company's AI goals. This approach ensures previous investments aren't wasted and lets us use each organization's unique assets and resources to deliver

Here's a snapshot of what we've helped diverse organizations — all starting from different points — achieve with AI.

Retail, consumer goods, travel and transportation

- [Minden.ai](#)
- [Marimekko](#)
- [Mackmyra](#)
- [Adevinta](#)

Banking and financial services

- [Top 10 US bank](#)
- [Nimble](#)

Healthcare and life sciences

- [Bayer](#)
- [MCG Health](#)

Tech and business services

- [Adevinta](#)
- [Bolt.works](#)
- [Leading media and publishing company](#)

Public, energy and utilities

- [Jugalbandi](#)
- [Finavia](#)
- [Terrascope](#)



Thoughtworks' strategic framework for AI transformation provides a proven model for long-term value creation that helps streamline an extremely complex journey. But the real value of the framework emerges when we contextualize it for an individual organization.

Using our framework, you can carefully consider your organization's strategic goals, operational challenges, and existing technology estate, and build a bespoke AI strategy around them that delivers high, differentiated value.

AI should never be applied or adopted for its own sake. It must be carefully adopted in ways that support meaningful goals and help people, systems and organizations achieve more. By following this framework, you can ensure your AI investments deliver the best possible results for your business and all of the stakeholders it serves.

If you're ready to find out where your AI transformation journey should go next and how we can help you harness the power of AI in your organization, [talk to us today](#) or [learn more about our AI services](#).

