

The Rise of AI-Native Software Engineering Teams

Reenvision organization, teams, talent and workflows.

Embrace AI transformation to unlock competitive advantage

Software engineering AI success is impossible without adapting team structures, workflows and roles to optimize for the new division of labor between humans and AI. As the software delivery life cycle (SDLC) becomes more autonomous, developers will focus less on implementation and more on customer value and domain expertise, working in tiny product teams with high talent density.

68% of software engineering organizations say AI-driven automation will cause all engineering roles to evolve.

Becoming an AI-native organization requires leaders to set an inspiring vision for change, align teams around AI-enabled workflows and cultivate AI skills.

To drive this structural shift, you must:

- Shift to tiny product teams with high talent density, supported by robust platform engineering.
- Adopt zero-friction SDLC to shift developer role from implementation to supervising AI in creation of software.
- Close critical skills gaps with emphasis on AI engineering, product design and deep domain knowledge.

This eBook helps software engineering leaders build a structured plan to redesign their teams, roles and workflows — to elevate the engineering organization's strategic impact and deliver on the AI-native enterprise vision.



Akriti Kapoor
Senior Director Analyst

Your roadmap to success

To transform into an AI-native software engineering organization, leaders must inspire their teams with a vision for change, collaborate closely with their teams to create and adopt new AI-enabled ways of working, and cultivate AI-native skills and behaviors in their teams.

Gartner equips software engineering leaders at every stage, from benchmarking peer performance and addressing critical talent gaps to implementing new AI-enabled ways of working, ensuring every structural adaptation accelerates delivery timelines and maximizes ROI.

1. Assess current organizational structure, processes and talent to deliver on evolving priorities.

2. Iteratively transition organizational structure, roles and practices toward AI-native software engineering.
3. Create strategies to evolve roles, skills, technologies and processes for AI-native software engineering.
4. Evolve talent strategies to address new organizational structure, skill gaps and engineering practices.

Two key outcomes to consider in Step 1

Assess current skills, processes and delivery capabilities: Evaluate your current organizational structure, processes and talent against your future vision to ensure your teams can successfully deliver on evolving priorities.

Identify talent gaps and delivery friction points: Pinpoint areas where your current organizational structure and delivery processes create friction, allowing you to iteratively transition your roles, structures and practices toward AI-native software engineering.

Key questions your software engineering peers are asking Gartner

Gartner clients can ask questions like these directly on [AskGartner](#).

Gartner clients can click to explore answers.

How should we adapt our software engineering workforce strategy to account for AI?

[Explore Answer ↗](#)

What are the key factors of success for AI-native software engineering?

[Explore Answer ↗](#)

What new software engineering roles and skills do our teams need to be successful?

[Explore Answer ↗](#)

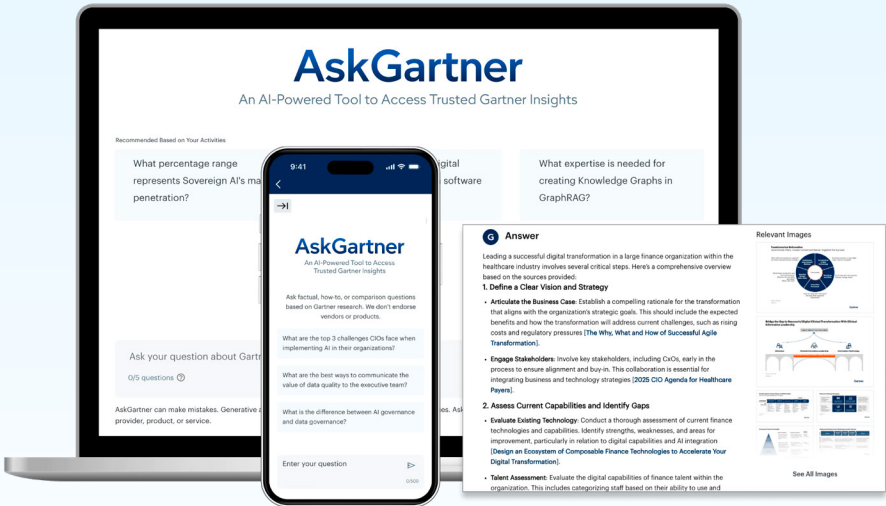
How should we structure teams to maximize the flow of value in the AI era?

[Explore Answer ↗](#)

How should we design AI-driven software engineering workflows and technologies to maximize developer productivity?

[Explore Answer ↗](#)

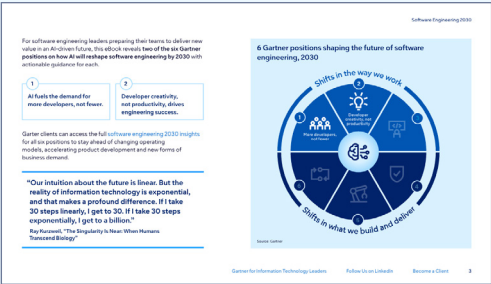
Your peers use AskGartner to answer these questions in minutes.



[Learn More](#)

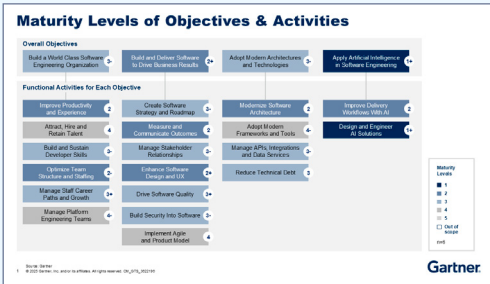
Gartner resources turn your priorities into plans and actions

Assess current organizational structure, processes and talent to deliver on evolving priorities.



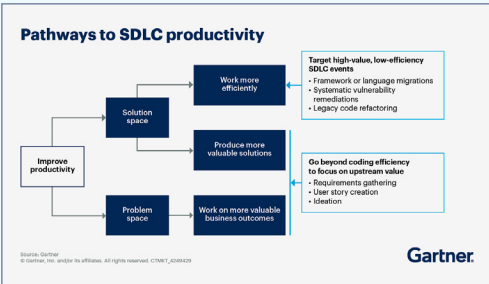
Insights: Software Engineering 2030: The Impact of AI ↗

Iteratively transition organizational structure, roles and practices toward AI-native software engineering.



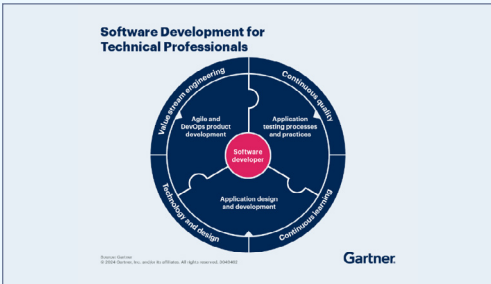
Tool: Software Engineering Score ↗

Create strategies to evolve roles, skills, technologies and processes for AI-native software engineering.



Insights: Don't Limit AI in Software Engineering to Coding ↗

Evolve talent strategies to address new organizational structure, skill gaps and engineering practices.



Insights: Essential Skills for Successful Agile Development ↗

Engage with Gartner

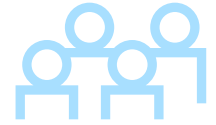
- Connect with an analyst to define, plan and monitor your AI-native engineering strategy.
- Get guidance from an Executive Partner on change management best practices throughout your journey, including how to best overcome roadblocks along the way.

Expected outcomes

- Updated developer skill sets and responsibilities necessary for AI-native engineering
- Strategies to adapt software delivery workflows to maximize developer productivity
- Leadership approaches to develop and evolve the long-term software engineering strategy

Who needs to be involved?

The most successful organizations establish cross-functional teams for their software engineering initiatives. We have outlined the recommended functions to involve and their roles to ensure the best success in hitting the milestones.



CIO/head of technology ↗

Sets a clear enterprisewide AI ambition, identifies use cases; quantifies benefits and risks, aligns teams and competencies, and drives innovation across the organization.

Software engineering leader and team ↗

Drive AI integration by clarifying desired outcomes, establishing engineering best practices, transforming services with an AI-first approach and architecting software development to support AI objectives.

Chief data and analytics officer and team ↗

Lead the organization's AI data strategy by identifying use cases, establishing governance, developing new data value and ensuring data readiness for AI technologies.

Chief information security officer and team ↗

Integrate cybersecurity and data privacy into AI strategy by managing trust, risk, sovereignty and security, overseeing programs, anticipating threats, updating skills and designing resilient solutions.

Head of enterprise architecture and team ↗

Align AI structure and design with organizational value by guiding use cases and requirements, governing architecture investments, leading adoption decisions and architecting AI solutions.

Head of AI ↗

Develops, champions and executes the organization's AI strategy by overseeing AI use-case selection and scaling, establishing governance and literacy, implementing solutions, monitoring market trends, building a world-class team and reporting on business impact.

Use Case

Building the Future of Software Engineering — Powered by Gartner

Mission-critical priority

To envision the future of software engineering, leaders are transforming organizational models, workflows and talent strategies to enable more agile, product-driven delivery. This shift requires prioritizing developer experience, adopting DevOps practices and aligning teams to customer-centric outcomes.

**How Gartner resources help**

Software engineering leaders partner with Gartner to accelerate this transformation by leveraging end-to-end expertise across developer experience (DevEx), operating model design and talent strategy. Through tailored insights, proven frameworks, maturity models, analyst insights and peer engagement, Gartner enables organizations to redesign team structures, implement DevOps and product-centric models, and build high-performing, future-ready engineering teams. Gartner guidance spans from strategy through execution — helping leaders establish customer-focused metrics, align workflows and operationalize changes that drive sustained performance and business impact.

**Mission accomplished**

With Gartner support, organizations move from siloed teams and inconsistent practices to more agile, product-driven engineering models that transform how work is delivered. Clients improve developer experience, strengthen talent strategies and implement customer-centric metrics to better align teams to business outcomes. Organizations gain more efficient delivery, higher team performance and measurable improvements in speed, quality and overall business impact.

Accelerate software engineering priorities ↗



Address your other mission-critical priorities



Future of software engineering: reenvision organization, teams, talent and workflows

68% of software engineering organizations say AI-driven automation will cause all engineering roles to evolve.



Use AI to accelerate productivity throughout the SDLC.

80% of software engineering teams will struggle to see productivity gains from using AI unless they apply it across the full SDLC.



Build and integrate AI applications and agents.

Creating and delivering on their AI strategy is the No. 1 priority for software engineering leaders.



Establish foundations for AI-ready software engineering technology.

60% of software engineering leaders expect to increase investments in AI-augmented tools, AI capabilities and AI skills.



Innovate and modernize to improve software engineering value delivery and costs.

Only 50% of software engineering leaders rate their teams highly effective in meeting target business objectives.

Connect with us

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U.S.: 1 855 322 5484

International: +44 (0) 3300 296 946

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