BCG

Executive Perspectives

14

AI-Enabled Engineering Excellence Transformation

April 2025

In this BCG Executive Perspective, we articulate the potential of AI-enabled engineering excellence

Introduction – AI's potential in the software development lifecycle and the need for engineering excellence

We studied the current state and sentiment of how generative AI (GenAI) is transforming the software development lifecycle (SDLC) – through engagements with CIOs and CTOs, and through a market survey[1] [2].

While everyone is experimenting, most organizations struggle to realize impact.

To unlock full value, GenAI must go beyond code copilot tool deployments: It must be embedded into core engineering strategies. This means tackling platform, tooling, process, and talent bottlenecks, not just deploying tools.

The opportunity: Treat GenAI as a catalyst for a broader engineering transformation – to boost productivity, accelerate delivery, and reinvent developer workflows.

Key questions for leaders:

- Are you seeing measurable impact from GenAI across the SDLC?
- Are you solving core bottlenecks – or just layering on another tool?
- Are you evolving fast enough to keep up with GenAI's rapid advancements?

This document provides a practical roadmap for CIOs and CTOs to cut through the hype and focus on what drives real value – today and tomorrow.

1. 60% CIO; 23% CTO; 12% Senior Leadership; 5% others, survey conducted January 2025
2. 27% SW Engineers; 24% IT Leadership; 16% ML Engineers; 14% other Engineers; 19% others, survey conducted January 2025

Executive summary | AI-enabled engineering excellence – from hype to 2X capacity

Current state	**Industry turning point:** >80% of companies now use GenAI for coding, yielding early gains (~5–10% cost savings, ~15% performance boost). However, **value remains spotty and limited to pockets** **Not a silver bullet:** GenAI isn't plug-and-play. Six challenges – a) the "toil paradox" (AI automates fun tasks but leaves grind work), b) low adoption, c) unclear ROI, d) tech debt, e) rapid tool churn, and f) org resistance – **are holding back full value**
Proposed approach	**Holistic transformation needed:** The promise is real, but leaders must **elevate their strategy** beyond deploying tools. A **holistic GenAI-driven engineering transformation** is required to unlock the full potential **Target weakest links:** Use GenAI gains as a **laser focus on bottlenecks** – e.g., modernize platforms, streamline processes, address talent gaps. By boosting the weakest areas, organizations can approach **2x engineering capacity**
Path forward	**From rollout to excellence:** Shifting mindset from a one-off "GenAI rollout" to an ongoing **"AI-enabled engineering excellence"** journey requires getting **five things right (5Rs)** – ways of working, tech stack, org setup, workforce skills, and continuous improvement loops

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025

Industry sentiment | AI in engineering – widespread adoption, shallow impact

GenAI code generation tool is increasingly becoming "table stakes"

>80% of companies have **paid / enterprise GenAI code generation** tool beyond POC stage

>75% of companies using GenAI to **write new code**

Early proof points show improvements in quality and satisfaction and freeing up capacity

5-10% typical **cost savings** for CIOs thanks to GenAI adoption[1]

15-20% improvement in **velocity, quality,** and **developer satisfaction**

2x ambition for future impact of GenAI in **next 3 years**[1]

However, most companies are still early in the journey to drive adoption

20% only ~**20%** of companies have widespread adoption (>75% developer access)

>6 mos. ~80% of slower-adopting companies will take **another 6+ months** to achieve 75% adoption

Key hurdles are unclear ROI, lack of trust, and general inertia

50% of CIOs see **unclear ROI** as a top three challenge for GenAI adoption

40% of engineers see **hallucination & lack of trust in output** as a top three challenge

60% of CIOs and engineers see **general inertia to change** as a top three challenge

Security, testing, & reqs gathering are promising areas for GenAI beyond coding

10% of engineers state that **security and compliance, testing, and reqs. gathering** create most friction across SDLC

>33% of engineers desire a solution in **testing / debugging** if they could fix one area with GenAI

>60% of CIOs are at minimum exploring **GenAI agents** – many beyond coding

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025
1. Details see chapter 2

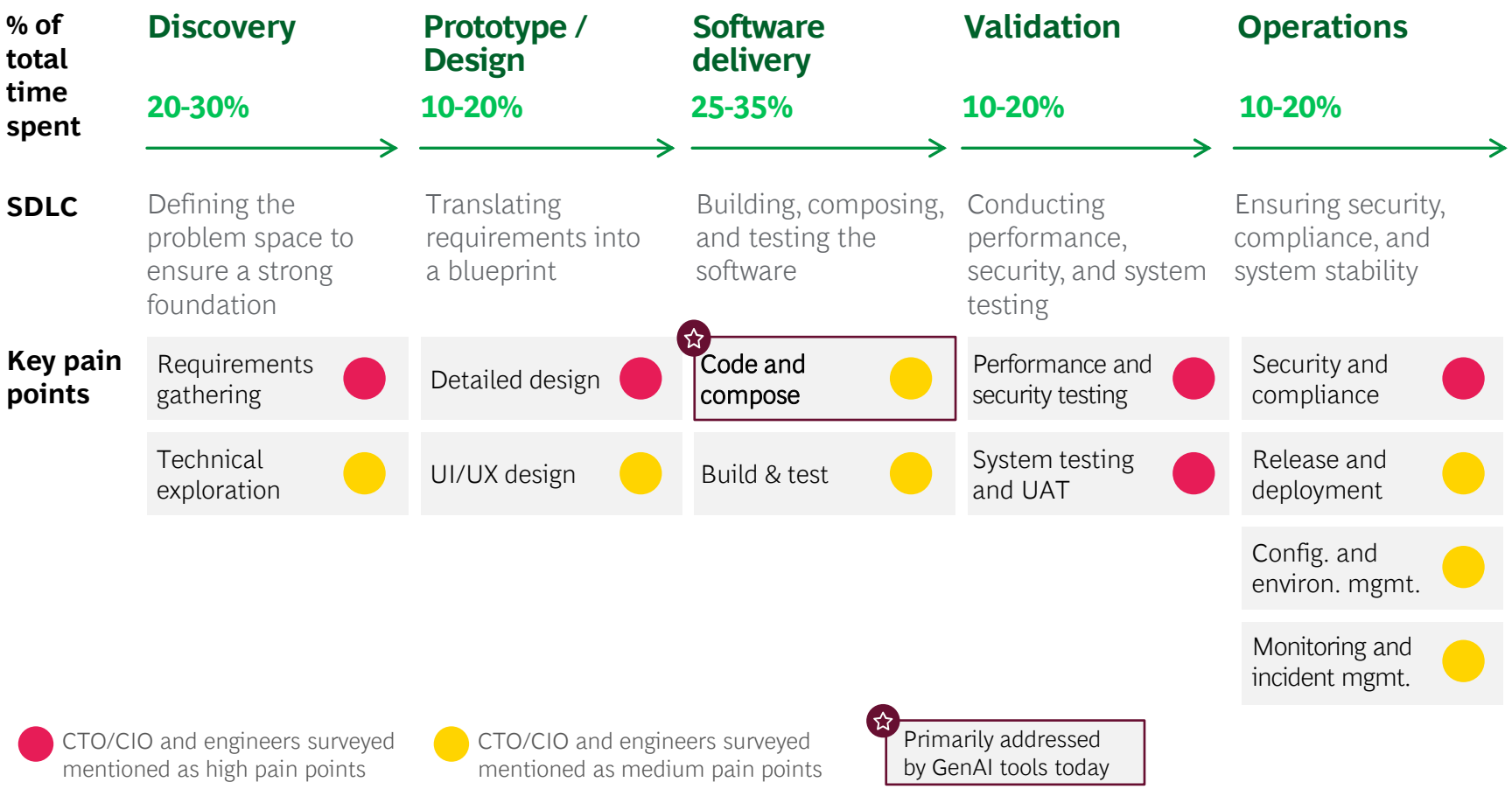
Challenges | AI value blockers – 6 challenges to overcome now

a	**The "toil paradox"**	**GenAI automates "fun" coding tasks** but leaves testing, security, and requirements as bottlenecks – limiting productivity gains. Unlocking its full potential requires both fresh innovation and a mindset shift
b	**Adoption lags**	**Only 20% of enterprises report >75% adoption.** Many treat GenAI as a tool rollout vs. new way of working – resulting in poor sustained uptake. A multi-pronged change approach is required
c	**Unclear path to measuring value**	**50% of CIOs struggle to quantify GenAI's impact**, reinforcing the imperative for end-to-end value tracking
d	**Tech debt dilemma**	**Outdated systems and poor DevOps severely dampen GenAI's impact.** Modern practices are needed to realize gains, and GenAI can help with the modernization
e	**Keeping up with speed of innovation**	GenAI tools evolve rapidly. Engineers get change fatigue with "tool churn" unless a **stable adoption flywheel is in place**
f	**Uncertainty in organizational structure**	**Traditional roles and team set-ups don't fit an AI-assisted world.** Leaders are uncertain how to reorganize for GenAI – but preparation must start now

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025

Pain points | AI mostly tackles the "fun" coding tasks, but leaves critical steps as major bottlenecks – demanding innovation and a mindset shift

Engineering pain points: GenAI needs to evolve across the SDLC



Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025
Note: Pain point allocation based on survey question "We would like to understand which phases of the software development lifecycle create the most and least friction for your enterprise"

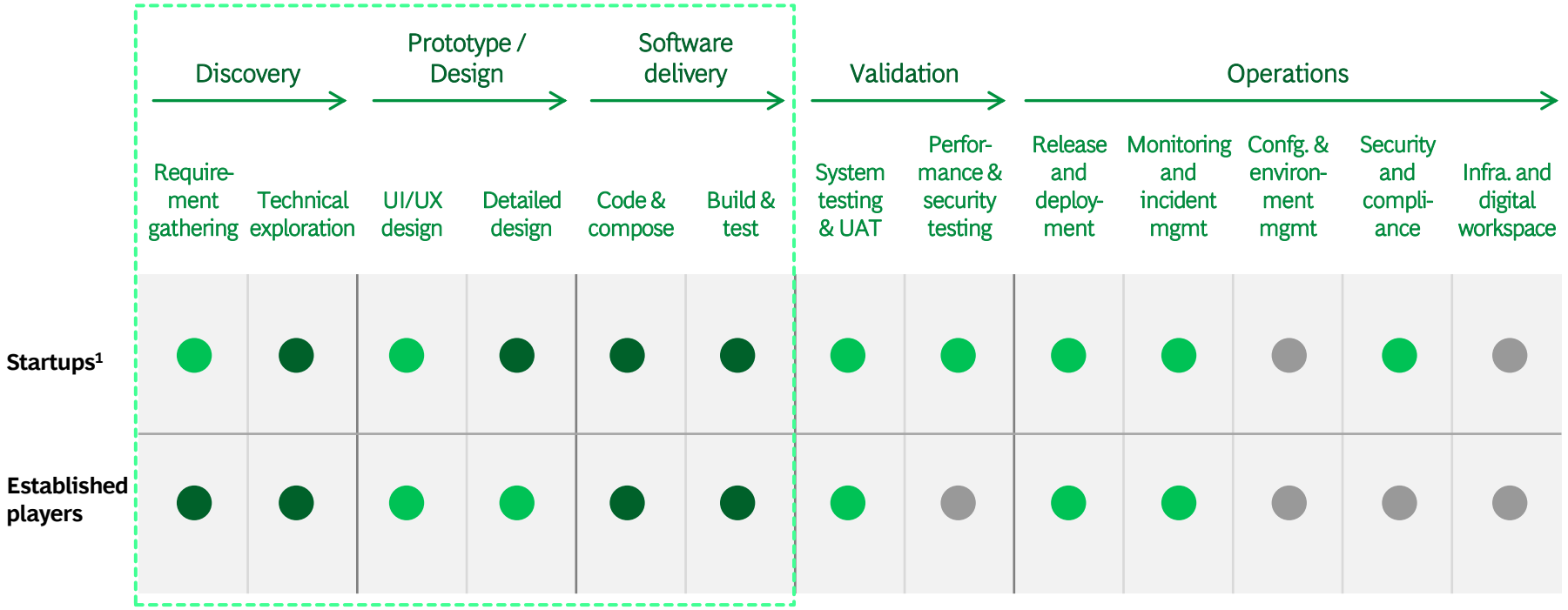
Engineers also need to evolve how they think of their role

> "Engineers today find joy in writing code, but mental models need to evolve to enjoy the thinking part and let GenAI write the code."

> "An engineer's greatest skill now is knowing when to let the GenAI do the heavy lifting—and when to step in."

85% of companies expect GenAI to impact engineering jobs

Investments | Innovation hotspots: design, code, test – AI everywhere



Level of innovation	Minimal	Moderate	High
Startups (investment in $, # of players)	< $50M, <10	$50-$250M, 10-20	$250-$500M+, >30
Established players (# of players)	<10	10-25	25-40

SDLC areas with current high innovation and different tool offerings

Source: BCG analysis as of Nov '24
Note: Effort is measured as # of companies and/or amount of investment flowing to companies addressing each SDLC area
1. Considering only privately held companies with fewer than 500 employees and less than $1B in revenue. Additionally, for funding, we are considering only last financing round if happened in the last 2 years. If a startup raised $100M and covered 4 different SDLC areas, the $100M is split between them, with $25M attributed to each phase

Code co-pilots are the hottest area of innovation - revolutionizing how developers write and review code

Code co-pilots are expanding upstream actively (incl. via agents) - integrating into planning, design, and agent-driven automation

Downstream expansion is slower - opportunities are in the space of testing and security

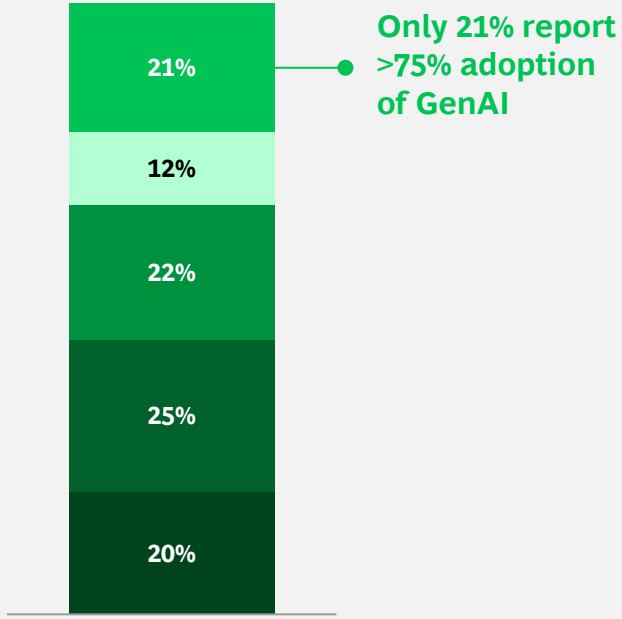
Too early days to pick winners - in some cases, enterprises that picked established solutions are now considering emerging solutions

Not all stacks are equal - existing tech stack (code repo, etc.) impacts efficacy of GenAI solutions

Adoption conundrum | Adoption remains uneven, with only 20% of teams reporting >75% uptake – current change efforts don't lead to stickiness

Level of GenAI adoption

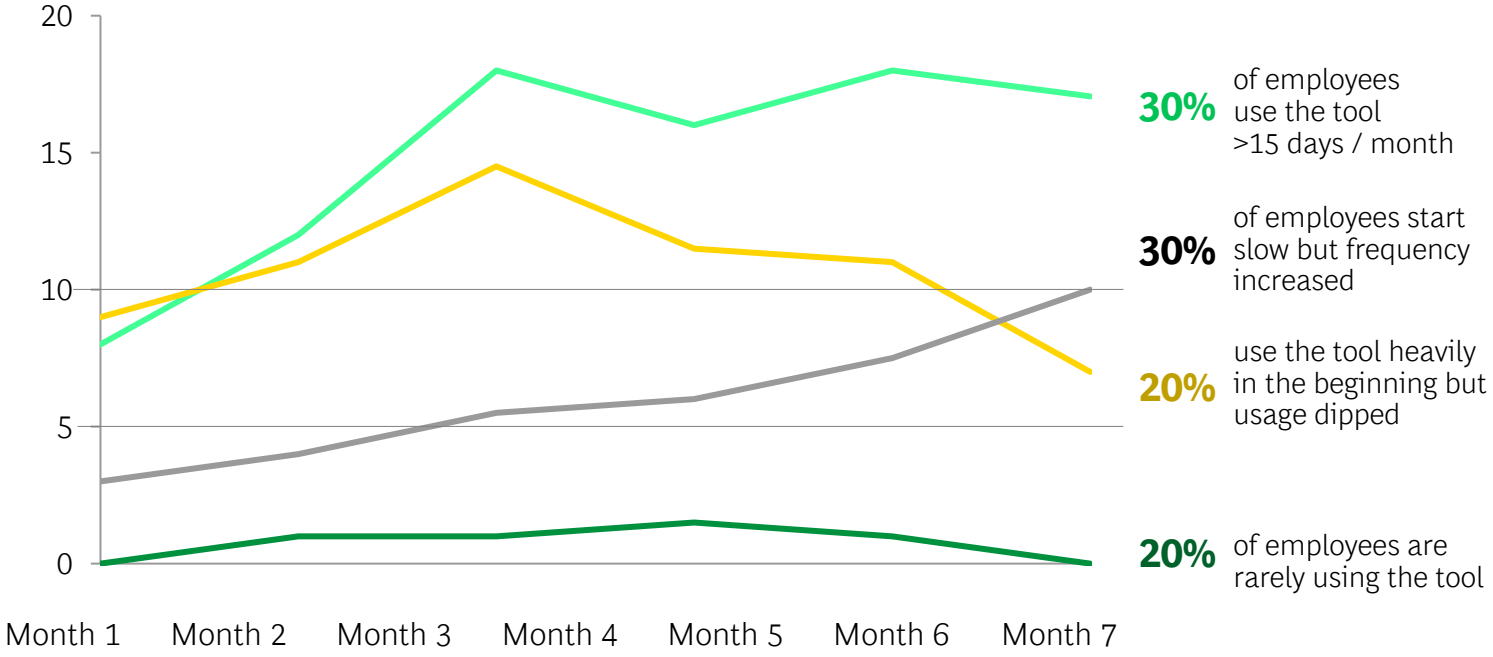
% of CIO & engineers by FTE size, N=257



Why is adoption hard? | Looking under the hood reveals pockets of adoption and a lack of stickiness despite change management efforts

Days of GenAI use per user per month (avg. by cohort)

Case example



GenAI adoption is not just a technology shift – it's a behavior shift

Sustained impact requires structured enablement, ongoing reinforcement, and a programmatic approach to drive consistent usage and long-term change

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025

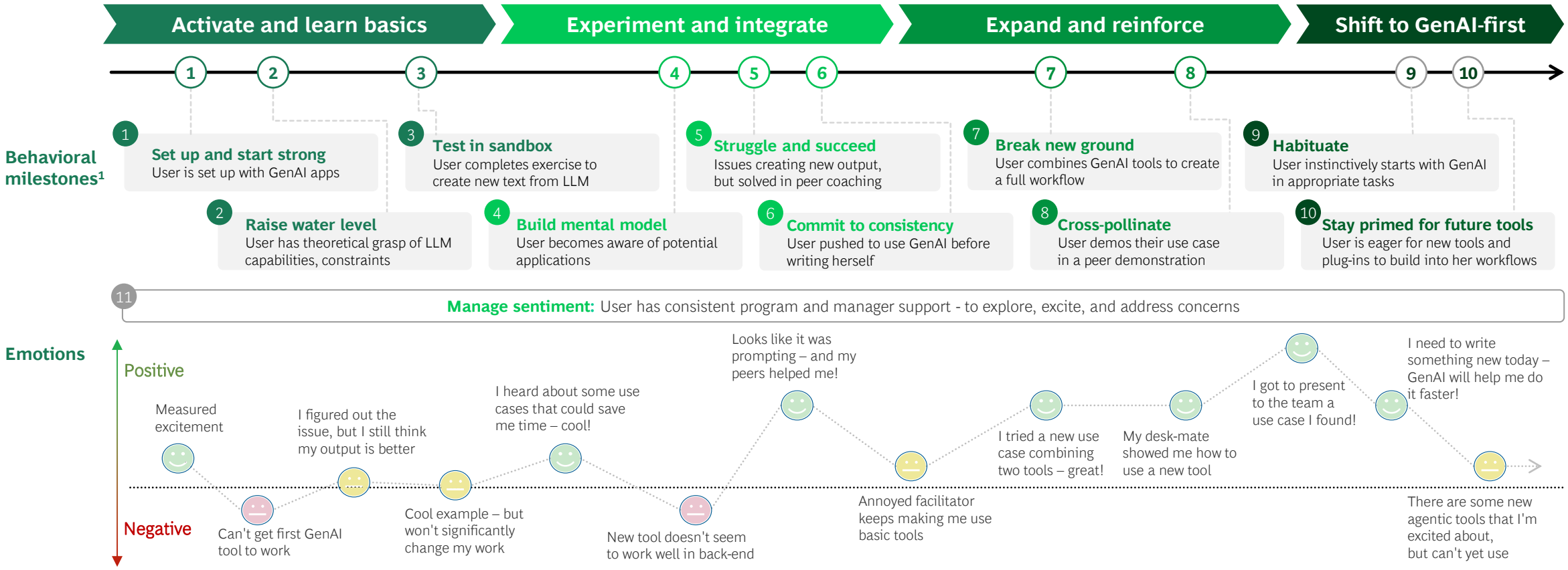
Learning curve | Instead of simply rolling out tools, establish a continuous learning process that actively guides engineers up the learning curve

Learning curve of GenAI user adoption

1	2	3	4	5
The Cautious Beginner	**The Curious Experimenter**	**The Frequent User**	**The Automator**	**The GenAI Orchestrator**
Has heard the hype but skeptical about GenAI-powered coding	**Dabbles in GenAI assistance but still prefers manual control**	**Embraces GenAI-driven coding as a core part of workflow**	**Uses GenAI to generate, refine, and optimize code at scale**	**Leverages AI agents for complex tasks with minimal intervention**
Occasionally uses chat, but **avoids GenAI-generated code; prefers traditional coding methods** and sees GenAI as a supplementary suggestion tool rather than an assistant	**Uses code suggestions** but manually pastes GenAI-generated code; prefers GenAI assistance on short code snippets over full-code generation	**No longer manually writes most code;** accepts GenAI-generated code with light modifications; sees GenAI as a productivity booster, using it for rapid iteration and development	Uses **GenAI to edit and optimize multiple files** in a repository; leverages prompting to generate entire modules or refactor large sections of code	Shifts to agent lead with human support, where **GenAI agents drive test writing, test, and debug code** without manuals edits; emphasizes prompt curation instead of direct code generation

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025

Learning journey | Sustained AI use requires intentional behavioral interventions across the learning journey



Several other personas (e.g., senior leaders, team leads) also critical to orchestrating change journey

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025
1. Behavioral milestones are not necessarily sequential

Holistic change program | A holistic change program requires multiple levers to drive adoption and sustain impact

Measurements and tracking	**Adoption** Measure number of users at each level of GenAI proficiency (e.g., beginner vs. frequent user)	**Productivity** Measure uplift in individual output (e.g., PR rate) & attribute / link to GenAI usage	**Quality** Measure accuracy and usability of output (e.g., number of bugs)	**Developer satisfaction** Measure user sentiment with the tools
Communications and purpose	**Strong mandate from C-suite** Reinforce GenAI as an urgent competitive need, not just an experiment	**Accountability** Link and communicate GenAI adoption metrics with team OKRs and budget	**Change ambassadors** Identify "micro-influencers" to share success stories and approach	
	Communication cascade Coordinate series of messages across channels to reinforce sense of purpose	**AB testing** Continuously test and refine effective approaches to reinforce adoption	**Nudges** Deploy frequent (e.g., 3x weekly) nudges to encourage habit building & share useful tips	
Education and enablement	**GenAI acceleration sprints** Intensive, multi-week program to apply GenAI to real workload & ingrain new habits	**Learning paths** Provide structured training paths, from beginner use cases to advanced agentic AI	**Scalable "train the trainer" model** Enable internal experts to become AI advocates running future workshops	
	Hackathons Teams to try new tools, way of work & share knowledge while solving real problems	**GenAI knowledge hub** Build central repository with best practices, how-to guides, troubleshooting resources	**Community support** Form mentorship program and community channels (e.g., Slack) for knowledge sharing	
Incentives	**Manager targets** Tie funding and business performance targets to GenAI adoption & impact	**Individual contributor incentive** Make GenAI adoption part of review; award special bonuses for top users	**Team gamification** Introduce GenAI adoption leaderboards and friendly competition between teams	**Scarcity** Reduce engineering budgets or headcounts to incentivize GenAI usage

Successful GenAI adoption requires a multi-faceted approach, integrating measurement, communication, enablement, and incentives

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025

Measuring value | Value tracking is a major hurdle to AI adoption – exemplars deploy an end-to-end value steering and capture framework

~50% of CIO/CTOs see unclear ROI as key hurdle to GenAI adoption in their enterprise

~50% of respondents report redeploying capacity gains

> *"What are we doing with 30% time savings? At this point nothing - our devs are just finishing work 30% sooner."*

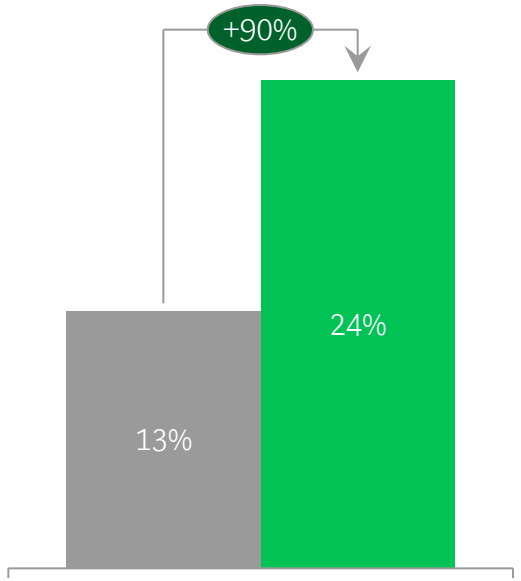
Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025

E2E value tracking and steering framework

Balanced scorecards	Balancing adoption, productivity, quality, and developer satisfaction
Adoption maturity levels	Definition and measurement of AI maturity by cohort (vs. tool usage)
Business case with lineage to metrics	Alignment on metrics and ROI by each "using" division
Handshake (and targets) by divisions	ROI method backed by metrics (e.g., hard to measure % of time coding - commonly used in business cases)
Link to budget process	Mechanisms to identify and capture value (e.g., reduce current and/or open roles, clear additional backlog, and commit to faster time-to-delivery)
Incentives and rewards	Monetary and non-monetary nudges to align behaviors

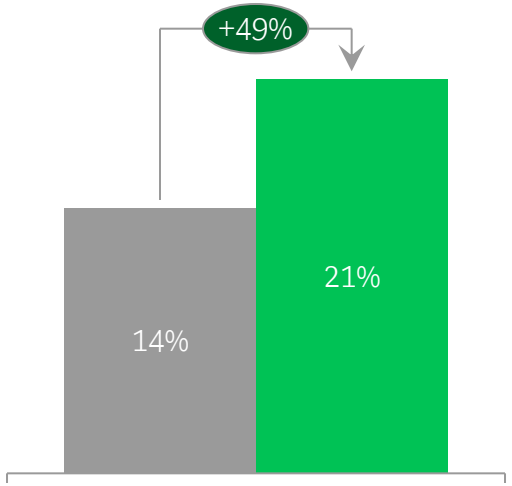
Tech debt dilemma | AI in code development with mature DevOps significantly enhances velocity and capacity savings

GenAI velocity gains
based on DevOps maturity[1]
in **traditional tech stack**



Traditional systems

GenAI velocity gains
based on DevOps maturity[1]
in **modern tech stack**



Modern systems

Minimal DevOps setup Advanced DevOps setup

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025
1. At least two DevOps automations utilized (e.g., automated testing, CI/CD tools)

GenAI-ready tech stacks and ecosystems maximize gains

GenAI-ready codebases, e.g., standardized coding practices, modular design, and trunk-based branching strategy

Robust DevSecOps, e.g., testing with AI-generated artifact scans and vulnerability detection

Platform & data simplification and modernization, e.g., unified infrastructure and streamlined release pipelines

Adoption flywheel | To drive adoption and faster innovation loop – establish a central engineering enablement team

Exemplars are creating a central engineering enablement team to orchestrate the adoption flywheel to:

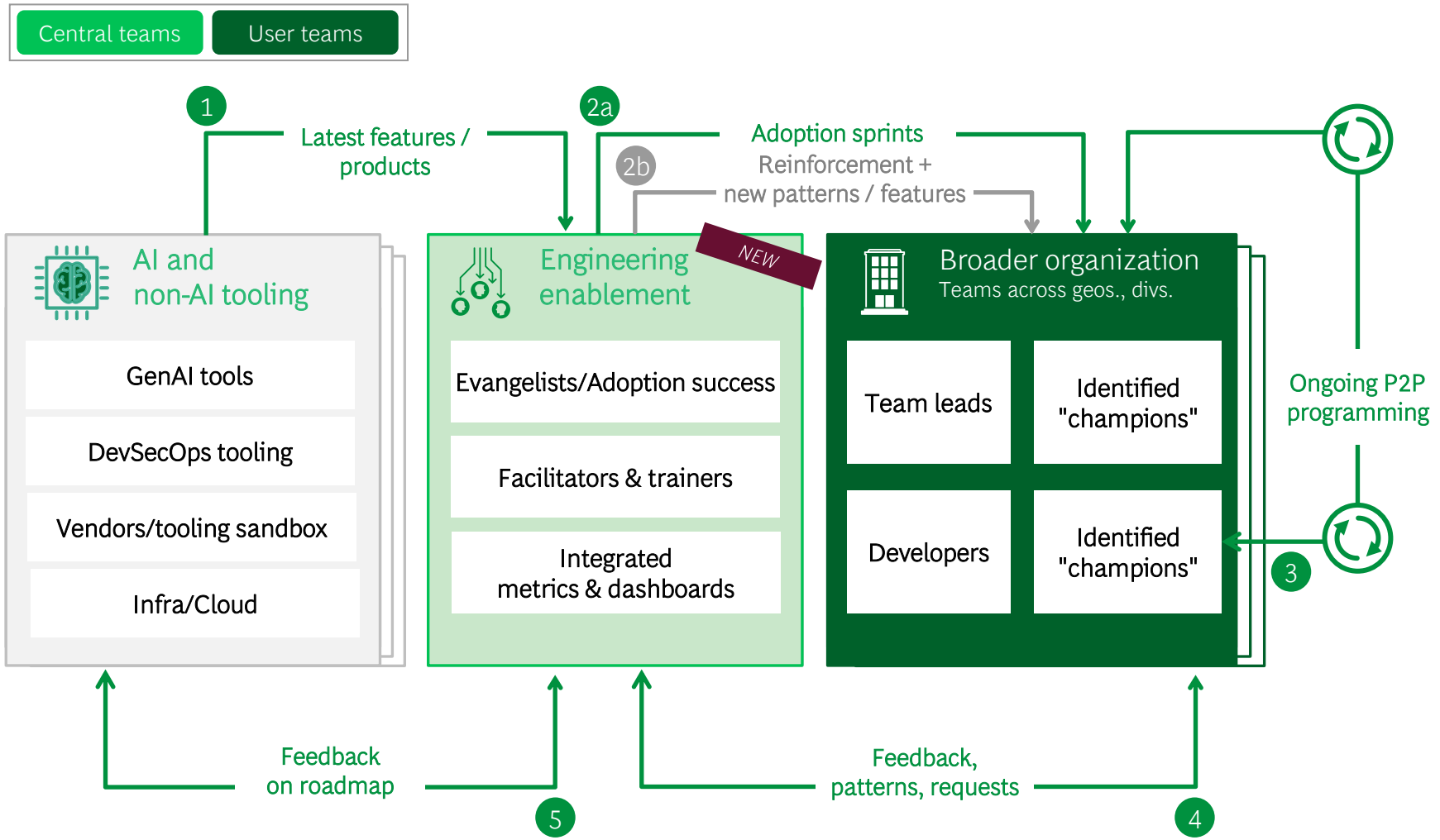
Take a user-centric vs. tool-centric approach to adoption

Build a robust measurement and tracking approach

Drive behavioral change for 1000s of engineers in a scalable and cost-efficient manner

Rapidly enable tool evolution through a tight product-to-user feedback loop

Promote continuous upskilling in response to evolving tooling



Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025

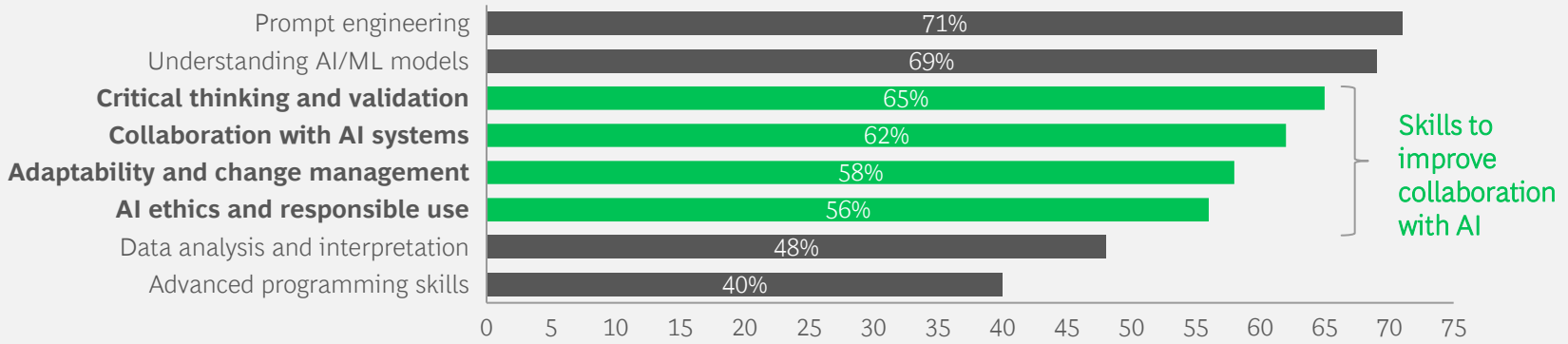
Upskilling | AI will reshape the engineering function, eliminating some roles, creating new ones, and redefining skill sets – upskilling is essential

>85%[1]

of CIO/CTOs and engineers expect AI will impact jobs

	43%[2] new required skills and competencies	**27%[2]** elimination or reduction of existing roles	**20%[2]** emergence of new roles
Type of impact by AI	• Increase demand for skills in AI tool proficiency, prompt engineering, ethics, and critical thinking	• Eliminate or reduce roles associated with repetitive, low-value tasks such as junior developers and testers	• Create new roles focused on AI integration, governance, and interdependencies.
Example skills required/roles impacted	• AI literacy • AI ethics and governance • Analysis of AI output and oversight	• Junior/entry level developers • Traditional developer roles (focused solely on coding) • Testers	• Prompt engineers • AI governance and ethics specialists • AI-augmented developers

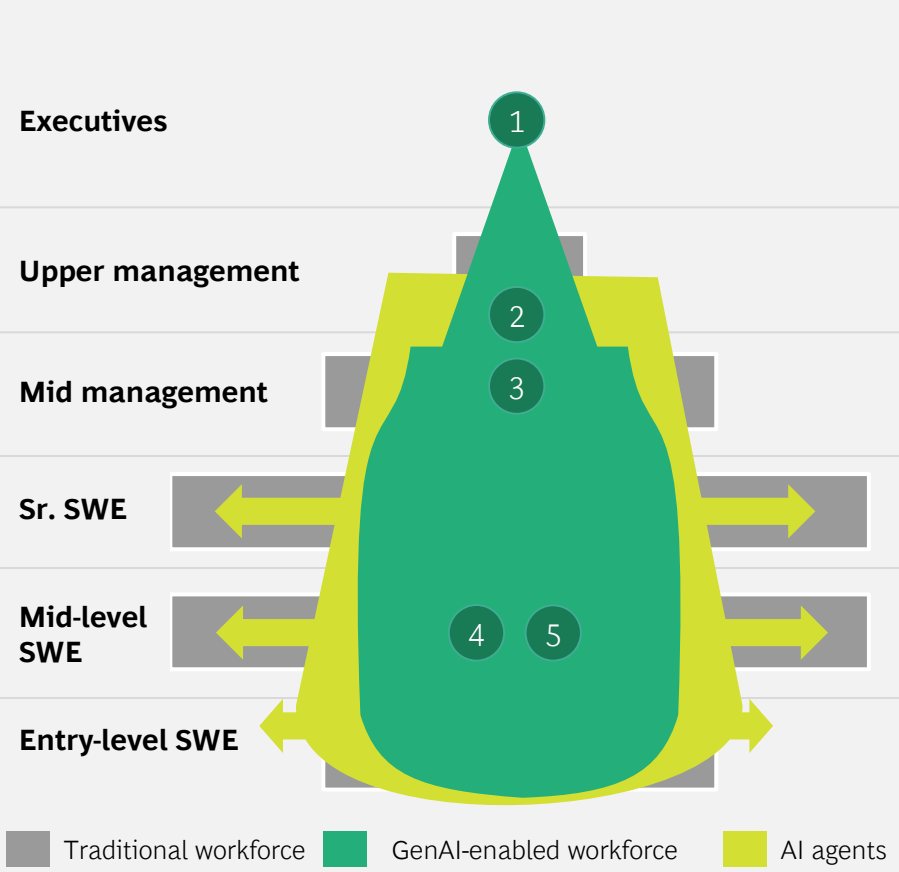
Expectations to learn new technical skills, but also "softer" ways of work



Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025
1. % of survey responses by CIO/CTOs and engineers if they expect a GenAI impact on jobs; 2. % of survey responses on specific impact of AI on jobs

Future state | AI will reshape development organization structure – flatter hierarchies, faster ramp-up, fewer silos

Future state of software Dev Org



Key implications of GenAI on software Dev Org structure

1. **Leaner, high-velocity organizations:** AI boosts productivity across the board. Fewer layers, faster releases, leaner headcount

2a. **Skills shift – less coding, more critical thinking**: Development work moves up the stack. Success now depends on system design, AI collaboration, and problem framing

2b. **New roles reshape the organization:** AI creates demand for roles like AI stack architects, prompt engineers, agent orchestrators, and ethics/governance leads

3. **Middle management thins out:** "Democratization of knowledge" – AI reduces the need for hand-holding. Less time spent guiding juniors, more time on strategy

4. **Entry-levels level up faster:** Juniors ramp-up quicker, focus on logic and product thinking – AI handles boilerplate & testing

5. **QA & support roles shrink or vanish**: Agents absorb traditional testing, documentation, and some DevOps – reducing adjacent team needs

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025

Imagine a world | Human-AI collaboration doubles SDLC productivity

Discovery & prototype/design

Gathering & refining requirements

Rapid prototyping

Delivery & validation

AI-augmented coding

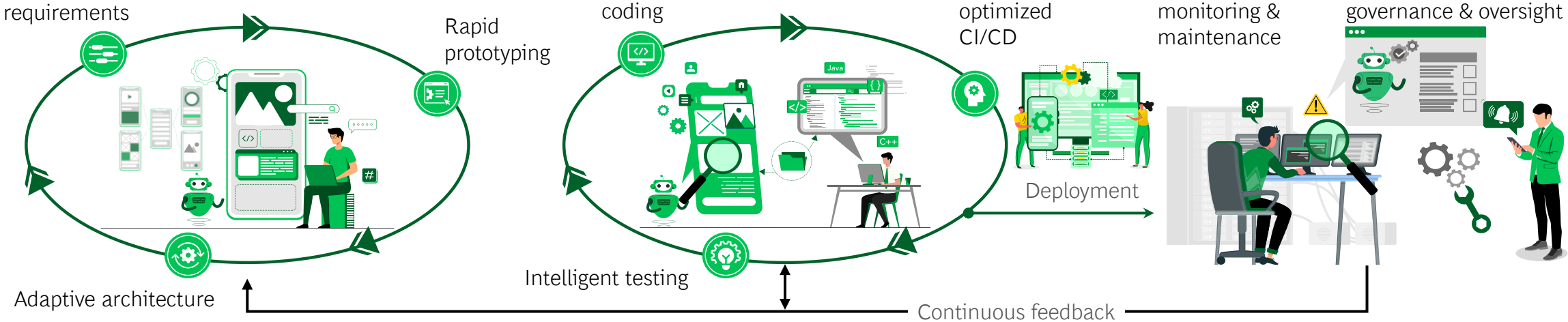
Self-optimized CI/CD

Deployment

Operations

Predictive monitoring & maintenance

"Always on" governance & oversight



Reduced time to clarifying objectives & validate concepts

- AI-assisted solution design (fewer missed edge cases)
- Self-reconfiguring platform and algorithms for performance

Faster coding & implementation

- Automated repetitive coding tasks and structural improvements
- Streamlined deployment process and lowered time-to-production

Accelerated time to market and reduced total cost of ownership

2X Productivity

Better quality & testing

- AI-driven test suites & rapid bug identification and resolution
- Proactively reduced security & vulnerabilities risks

Self-healing system & continuous improvement

- Agentic-maintained system stability and minimized downtime
- Auto. analyzed usage patterns to guide future development

Delivery of higher quality and cultivation of resilient systems

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025

How to get it right | Full AI value requires holistic engineering transformation

Singular roll-out of code-generating AI tools

Off-the-shelf tools provide **easy access to AI capabilities** but **long-term transformation potential limited to 30%** as outdated practices can largely eliminate impact from deploying GenAI

>30% **Value from GenAI**

Most commonly followed approach today …

GenAI-enabled engineering excellence transformation

A holistic approach that fundamentally rethinks how teams build, ship, and maintain software **(including GenAI, agents, traditional DevOps, and underlying technology modernization)**

>2X[1] **Value from GenAI**

… recommended way forward

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025
1. 30% from maximizing use AI code generation tools, 20% impact from extending tools to other non-coding stages (including via agents) and 2x from impact if working on a modern tech stack with modern ways of working

What is required | Key requirements for a holistic AI-enabled engineering transformation

Inputs for a successful AI-enabled engineering organization

Right ways of working within teams

- Interaction models, cadence, & flow
- AI-first mindset (e.g., reviewer vs. builder)
- Tech Team best practice adoption (e.g., TDD)
- Iterative tech debt mgmt. & decoupled architecture

Right tech stack and ecosystem

- AI-embedded workflows (e.g., coding assistants, agents)
- Integrated toolchains & platforms
- Reusable assets, APIs, & InnerSource
- Tech standards & architectural vision

Right organizational conditions

- Product/ Platform Org & Op Model
- Digital, customer, & innovation mindset(s)
- Agile Funding and Governance
- Adaptive Risk, Responsible AI & Cyber Controls

Right reskilling of workforce

- Ongoing reskilling & upskilling
- Future-ready organizational structure ("Pyramid of the Future")
- Next-gen talent practices (skills, recruiting & rewards)

Right human enablers and improvement loop

Improvement loop focused on biggest bottleneck

Measures

Measurement framework to track & drive efficiency across inputs, outputs, outcomes

Tech enablement team(s)
identify top bottlenecks and propagate best practices

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025

What is required | Short-term actions and long-term initiatives drive end-to-end transformation

	Short-term actions	Long-term initiatives
Right ways of working within teams	• Train developers on **effective prompting techniques** • Implement **AI-assisted code review processes** • Pilot **test-driven development (TDD)** with GenAI	• Standardize **AI-augmented SDLC workflows** with clear guidelines for AI-human collaboration • Embed AI into agile sprint planning
Right tech stack and ecosystem	• Deploy **AI coding assistants in IDEs** • Fix gaps in **testing, CI/CD, and security scans** • Integrate AI into **collaboration & DevOps tools**	• Build a **scalable AI-ready development toolchain** • Establish **AI-embedded workflows** (e.g., agents) • **Form strategic AI vendor partnerships**
Right organizational conditions	• Define a **clear AI operating model** • Identify & address cultural **AI adoption barriers**	• Optimize **team structures for AI collaboration** • Refine **funding model** to capture gains
Right reskilling of workforce	• Introduce **prompt-engineering workshops, learning sprints**	• Develop **role-specific AI training programs** • Integrate AI skills into **career development** • Conduct long-term skills & **workforce planning**
Right human enablers and improvement loop	• Form an **AI enablement team and establish tight feedback loop** • Establish monitoring and measurement	• Establish an engineering excellence function (including driving adoption of AI solutions)

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025

Risks | As companies explore AI, understanding and mitigating risks are critical for responsible adoption

Non-exhaustive

Traditional AI risks

Biased outputs

Models might suggest default or stereotyped logic flows, impacting fairness in user-facing features

Privacy violations

Private data may be inadvertently logged or stored within build/test environments

Lack of human controls

Insufficient human oversight can propagate errors and vulnerabilities, especially in context of agents

GenAI-specific risks

Lack of explainability

Tracing why the model proposed certain code or test scenarios can be difficult

Insecure code generation

Models might be unable to effectively address edge cases or tolerate changes to inputs

Unintended side effects

If AI introduces unconventional patterns or dependencies, it could lead to new vulnerabilities

Leaks of proprietary data

Companies and employees may transmit proprietary data when using GenAI tools

Informal use of AI

Employees use GenAI tools without adequate guidance/ supervision or bypass governance and security reviews

Copyright infringement

GenAI may inadvertently produce code segments that replicate copyrighted or licensed material

Undesired outcomes

Model suggestions may appear highly optimized but could contain hidden logic flaws

Hallucinations

GenAI may convincingly present misinformation as fact

High energy consumption

GenAI models require significant compute resources, increasing carbon footprint

Additional third-party risks: vendor models require extra validation checks

Level of urgency and impact for organizations integrating GenAI in the SDLC | min max

To mitigate these risks, companies should implement:

- A holistic change program
- An engineering enablement team

- Identify all risks, assess mitigations, and create a solid plan to implement mitigations

Getting started | An organization's approach to an AI transformation is highly dependent on its current tech state

A company can be in more then one category

	Current tech state	Transformation approach	Value[1]	Description
Workforce gravity	**In-house dominant**	**Three-speed approach:** accelerate adoption, strengthen foundations, enable future innovation	★★★	• Immediately **pilot GenAI coding tools** within agile teams to boost productivity • Invest in **foundational capabilities** (e.g., training, infrastructure) to scale rapidly • Build readiness for future AI-driven innovation by **integrating GenAI** deeply into **developer workflows**
	Vendor-driven / Outsourced	**Define clear GenAI standards and expectations with vendors**	★★	• Set explicit **AI-driven standards** for code quality, security, and collaboration in vendor contracts • Execute joint **GenAI pilots** to align vendors and **capture shared productivity gains**
Technology estate	**Legacy systems / DevOps maturity**	**Modernize foundations with targeted GenAI investments**	★★★	• Focus initial GenAI use cases on **addressing tech debt, legacy refactoring**, and automating foundational DevOps tasks • **Establish a stable, modernized base** to fully unlock future GenAI value
	SaaS / Platform-driven	**Maximize GenAI features from leading SaaS providers**	★	• Prioritize SaaS **providers** proactively **advancing GenAI capabilities** aligned to your needs • Quickly **integrate proven, pre-built GenAI solutions into existing processes** for rapid wins

1. Degree of value generated through a GenAI transformation | Low ★ Medium ★★ High ★★★

Getting started | CIOs/CTOs can take these practical next steps to prepare for their AI SDLC transformation

1	**Activate your engineers**	❑ **Develop a clear understanding of SDLC pain points** while recognizing the differing priorities of CTO/CIO and engineers (e.g., testing, requirements analysis) ❑ Identify a team of **skilled and motivated engineers** to lead the group and act as **change agents**
2	**Build a holistic ~3 year roadmap across the ~5Rs[1]**	❑ **Develop a comprehensive transformation roadmap** that integrates the core principles of the 5-R[1] framework for engineering excellence ❑ Create a **measurement framework to track and drive efficiency** across inputs, outputs, and outcomes
3	**Start building a central enablement and orchestration function**	❑ **Establish a centralized team** to orchestrate drive **tooling standardization, AI adoption, developer productivity, security compliance, and cross-team alignment** to ensure scalability and efficiency ❑ **Elevate workforce planning** by rethinking **roles**, updating **capabilities**, and aligning skills with the future of software engineering
4	**Establish beacons of success**	❑ **Identify pilot areas to prove the new normal in action** – exemplars start with teams, but then expand to deliver a large project in an AI-first ❑ Make an informed, strategic choice between **buying and building solutions**

Source: State of GenAI Across Engineering Survey (N=100 CIOs/CTOs and 300 engineers), January 2025
1. Five rights (5Rs) – ways of working, tech stack, org setup, workforce skills, and continuous improvement loops

BCG experts | Key contacts for AI transformation

EMESA


Marc Schuuring
Senior MDP
Amsterdam


Julien Marx
MDP
Paris


Tom Martin
PLA Director
London


Miriam Seiler
Principal
Zürich


Michael Grebe
Senior MDP
Munich


Nicolas de Bellefonds
Senior MDP
Paris


Sylvain Duranton
Senior MDP
Paris


Jan Ittner
Partner & VP
Munich


Eike Kock
PLA MD
Cologne


Nicolas Levillain
VP
Paris


Steven Kok
Partner & AD
London


Arne Weiner
PLA Director
Cologne


Sahithya Vemana
Partner
London

NAMR


Matthew Kropp
Senior MDP
Bay Area


Benjamin Rehberg
Senior MDP
NY


Julie Bedard
MDP
Boston


Joppe Bijlsma
MDP
NY


Vikram Sivakumar
Partner
New York


Geoffrey Sipperly
PLA Director
Seattle


Vladimir Lukic
Senior MDP
Boston


Vanessa Lyon
Senior MDP
NY


Sesh Iyer
Senior MDP
Washington


Pinaki Roy
MDP
NY


Djon Kleine
MDP
Los Angeles


Stephen Robnett
MDP
Denver


Vishwas Sugla
MDP
New Jersey


Helen Han
MDP
New York


Liz Lucero
Partner
Boston


Lisa Krayer
Principal
Philadelphia


Tue Tran
Project Leader
New York


Tauseef Charanya
Senior Director
Austin

APAC


Rajiv Gupta
Senior MDP
New Delhi


Julian King
Partner & VP
Sydney


Gaurav Jindal
MDP
Mumbai


Sreyssha George
MDP
Bengaluru


Sambhav Jain
MDP
New Delhi


Shavi Gandhi
Partner
New Delhi

○ Authors of Executive Perspectives and experts
○ Experts


BCG