Agentic SDLC in practice: the rise of autonomous software delivery

GenAI is reshaping how software is delivered across the Middle East

Table of Contents

01

Executive summary

01 Executive summary

Software delivery is a race where speed and quality must work together. Every additional release, every defect prevented and every hour saved for engineers adds up across products, customers and cash flow. Artificial intelligence, especially Generative AI (GenAI), which produces new outputs like code, tests and documentation, is changing how this race is run. It is influencing the software development lifecycle (SDLC), by augmenting every stage – from requirements analysis and solution design to coding, testing, deployment, support and maintenance.

Across the Middle East, GenAI's role in the SDLC has moved from proof-of-concept to production-grade adoption, offering new levels of efficiency, innovation and scalability. To understand current penetration levels, benefits, challenges and long-term impact of GenAI in SDLC, PwC Middle East conducted a research study in the region, targeting Gulf Cooperation Council (GCC) countries, Jordan and Egypt.

The study examines how GenAI is being adopted across the traditional SDLC and the impact it is already creating. It also outlines a future Agentic SDLC - defining the optimal blend of human and AI roles and identifies the evolving skills software teams will need to succeed in this new environment.

The transformation begins at the front end, where teams use GenAI to turn business inputs into clearer requirements, product or service specifications and rapid prototypes – shortening the journey from concept to buildable design. During coding and testing, AI agents generate workable code, surface defects earlier and improve test coverage, lifting quality throughout daily development. In deployment and operations, models support rollout planning and produce concise incident summaries that speed up resolution. And in maintenance, AI-augmented SDLC accelerates documentation, streamlines bug triage and helps teams manage backlogs more effectively. Together, these shifts signal a fundamental redefinition of how software is delivered.

Conducted as part of this study, the findings of PwC Middle East's survey of 377 technology leaders and professionals in the Middle East, have revealed that 70% of software teams in the region now use GenAI at moderate to high levels across the SDLC. What was once experimental is now enterprise grade, with GCC organisations and businesses at the forefront of AI adoption in the Middle East, leading the region in industrialising AI across core delivery processes.

The survey also explores how engineers and software developers are applying GenAI across the seven SDLC stages today:

01 **Ideation:** Identifying business needs, define project goals and gather functional and technical requirements for what the software should do

02 **Design:** Translating requirements into a system blueprint – outlining how the software will look, how users will interact with it and how different components will connect and operate

03 **Coding:** Writing the actual code that brings the design to life, turning ideas and blueprints into working software components

04 **Testing:** Detecting defects, assuring quality and validating alignment with requirements before release

05 **CI-CD (Continuous Integration and Continuous Delivery):** Releasing the software to users or production environments, automating builds, integration and updates for faster, more reliable delivery

06 **Monitoring:** Enhancing the software post- release to ensure it runs smoothly in real-world use

07 **Maintenance:** Improving the software – fixing bugs, updating features, refactoring code and ensuring it remains efficient and secure over time.

For chief information officers (CIOs) and chief technology officers (CTOs), the findings mark a clear inflection point. The region's software ecosystem is moving toward an AI-augmented SDLC where governance, measurement and human-AI collaboration become core design principles.

Organisations that invest early in structured observability, talent development and end-to-end AI integration will set the new performance benchmark for speed, quality and innovation in digital delivery.

02

Key findings

02 Key findings

70%

of Middle East software teams now use GenAI at moderate to high levels across the SDLC, marking a shift from pilots to production.

84%

of GenAI adopters report faster delivery and higher code quality, with the biggest productivity gains in maintenance, design, and monitoring stages.

54%

of software team leaders say developers are the most affected role, followed by database and quality assurance engineers (34%), highlighting widening skills gaps.

38%

of teams use GenAI in six or more SDLC stages, releasing software nearly twice as often as others and cutting defects by up to 96%.

75%

of teams plan to boost GenAI investment within two years and 62% are already exploring autonomous agentic AI systems.

Survey results were segmented into four archetypes:

Observers: Teams that are slow to adopt and cautious about introducing GenAI into their SDLC (0 to 1 SDLC Stages augmented by GenAI)

Experimenters: Teams experimenting with GenAI on specific tasks, though not yet in a sustained or structured way (2 to 3 SDLC Stages augmented by GenAI)

Integrators: Teams that have embedded GenAI into their SDLC workflows, focusing on select tasks in a consistent and continuous manner (4 to 5 SDLC Stages augmented by GenAI)

Pioneers: Teams that have already adopted GenAI comprehensively across projects and workflows, achieving full augmentation (6 to 7 SDLC Stages augmented by GenAI)

It is important to recall that breadth refers to how extensively GenAI is applied across the SDLC stages.
We have seen that mature teams, the Pioneers, are gaining tangible benefits in delivery speed and quality. Meanwhile, teams that remain Observers continue to chase quick wins and haven't yet translated GenAI adoption into concrete benefits.

03

How GenAI is reshaping software delivery in the Middle East

03 How GenAI is reshaping software delivery in the Middle East Middle East

GenAI's impact on software delivery in the Middle East has moved from experimentation to measurable outcomes. Adoption is rising quickly – but the benefits are unevenly distributed, creating a widening maturity gap across teams.

3.1 Adoption has moved beyond early curiosity

Our survey shows that adoption has moved beyond pilots, with performance gains increasing as GenAI is applied across more stages of the SDLC. The biggest opportunities now sit beyond coding, in the downstream phases that sustain reliability at scale. At the same time, a clear maturity gap is widening between Pioneers and Observers, with implications for talent, tooling and governance.

Almost 70% of teams now report moderate to high GenAI usage across the SDLC (moderate adoption reflects partial integration of GenAI across selected SDLC stages, while high adoption indicates extensive use embedded across most development stages), indicating that AI assistance is becoming part of standard delivery workflows. Adoption is strongest in the GCC, where the proportion of high-usage teams is 1.7 times higher than in Egypt, with Jordan showing balanced adoption between the two regions. Requirements ideation, coding and design are the most augmented stages today, with more than half of teams already using GenAI across these phases – accelerating the journey from ideas to working software and improving early-stage quality.

A key finding is that performance gains increase with breadth of adoption. Teams that apply GenAI across more stages report higher release frequency, better quality and stronger stability. This breadth of augmentation reveals a clear divide: 38% of teams are Pioneers, using GenAI in six or more SDLC stages, while 32% remain Observers, experimenting in only one or none.

Pioneers, as a result, deliver significantly faster – averaging around 74 releases per year.
The link between team size and GenAI adoption is strong and consistent. Larger squads (typically 15-16 full-time employees) are far more likely to use GenAI across six or seven stages of the SDLC. In contrast, smaller teams (around eight employees) tend to remain in the Observer tier, with limited GenAI augmentation. The pattern is clear: scaling team capacity and scaling AI adoption go hand in hand, reinforcing how larger teams can more easily embed AI throughout their software delivery process.

The benefits are measurable: 84% report speed gains from GenAI adoption across the SDLC, and among teams that track defects, 92% report reductions, rising to 96% for Pioneers.

3.2 Beyond coding: Where the real GenAI value is emerging

The biggest opportunity for acceleration lies beyond coding, in the downstream stages of the SDLC. While coding remains a common use case, the largest untapped opportunities for acceleration lie in downstream stages such as testing, CI-CD, monitoring and maintenance.

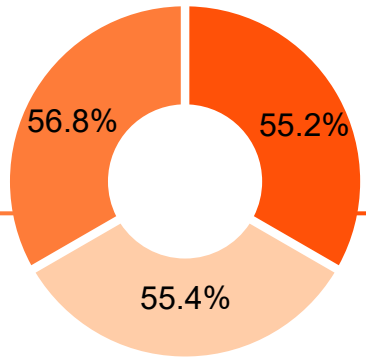
Today, GenAI is most widely used in:

Ideation

where teams convert unstructured inputs into clearer specifications and user stories
Ideation is now the most GenAI-augmented stage **(56.8 %),** reflecting heavy prompt-engineering and user-story generation use cases

Design

where AI helps create draft designs, interface concepts and system blueprints
Based on the conducted survey, the design stage is currently augmented by GenAI, with **55.2%** of its activities benefiting from AI-enabled support to enhance efficiency



Coding

where code assistants generate boilerplate, suggest implementations and help engineers navigate codebases.
Based on the conducted survey, the coding stage demonstrates a **55.4%** GenAI adoption rate, highlighting its increasing use in supporting software development activities

However, our analysis shows that teams that use GenAI to enhance maintenance and refactoring stages of the SDLC including post-release work, documentation and bug triage – see a significant productivity uplift, averaging 37 additional releases per year. Deployment and monitoring stages show similar momentum. The evidence is clear: organisations should prioritise AI augmentation in the wider spectrum of different SDLC stages, not just in code generation, to unlock the next wave of delivery speed and efficiency.

Investment momentum is accelerating this shift. Nearly **75%** of organisations plan to increase GenAI spending in the next two years, and maturity strongly correlates with investment confidence. Interest in agentic applications is also rising: **62%** of teams are exploring or building them, rising to **90%** among Pioneer teams.

Concerns evolve as maturity grows. Security remains the top concern overall (**38%**), but Observers over-index on security fears, while Pioneers are more constrained by compliance requirements and specialised talent shortages. As adoption scales, the nature of challenges shifts from "can we try this" to "how do we govern and sustain this."

Talent dynamics reinforce the divide. Developers are seen as the most impacted role (**54%**), followed by DBAs and QA professionals (**34%**). Pioneer teams report far higher GenAI skill density – **87%** high or very high, compared to **34%** for Observers—highlighting how capability building underpins scaled adoption.

This trajectory points toward an Agentic SDLC becoming mainstream. By 2027, more than half of regional teams are expected to operate a fully GenAI augmented SDLC, rising to two-thirds by 2029.

To capture this next wave of value, organisations will need to think beyond code generation. Applying GenAI across testing, deployment, monitoring and maintenance reduces operational friction, stabilises releases and sustains performance gains over time.

3.3 Maturity gap: How Pioneers and Observers differ

As GenAI adoption deepens, the gap between Pioneers and Observers is widening across several dimensions – including performance, skills, perceived barriers and strategic intent for an Agentic SDLC.

Performance and outcomes

Pioneers outperform on almost every metric. They release more often, report higher satisfaction with speed and quality and are more likely to track concrete outcomes such as defect rates. For these teams, GenAI has evolved from a tactical experiment to a core lever for throughput and reliability. Observers, by contrast, often chase quick wins from isolated tools but struggle to evidence gains in releases, quality or engineer time.

Skills and talent density

Pioneers also have far stronger internal GenAI capabilities: 87% rate their teams' GenAI skills as high or very high, compared with only 34% among Observers. Developers are seen as the most impacted role (54%) followed by database administrators and quality assurance engineers at 34%. This reflects a shift where routine coding, database administration and test case creation are increasingly augmented, prompting changes in responsibilities and skill profiles.

Barriers and risk perception

Security is the leading concern overall, but the nature of concerns change with maturity. Observers tend to focus on security risks and upfront costs, which can slow early experimentation. Pioneers have largely addressed these early hurdles and now handling compliance obligations and requirements, model governance and access to specialised skills and access to specialised skills. As organisations move along the maturity curve, the risk landscape shifts from "can we use this safely" to "how do we scale this responsibly".

Strategic intent and agentic outlook

Finally, Pioneers and Observers differ markedly in how they view the future. Nearly two-thirds of organisations overall are planning or exploring autonomous GenAI agents and agentic workflows. Yet Pioneers are 2.5 times more likely than Observers to pursue these applications, with 90% expressing interest compared with 36% of Observers. Three-quarters of respondents believe agentic workflows will reshape the SDLC, and confidence rises from 56% of Observers to 92% of Pioneers.

A two-speed transition is emerging

Taken together, these patterns suggest that the region is entering a two-speed transition. Organisations that invest in skills, measurement and end-to-end integration are already realising step-change gains in speed and quality and are preparing for Agentic SDLC models. Those that remain at the edges risk being locked into manual workflows, impacting quality and speed of delivery while peers move towards more automated, data-driven and AI-assisted delivery.

04

Six themes shaping GenAI-enabled software delivery

04 Six themes shaping GenAI-enabled software delivery

Through our survey, we have been able to define six themes that frame how GenAI impacts the SDLC today and what executives should do about it:

4.1 Adoption is real but uneven

Theme analysis

Middle East software teams are past the curiosity phase. Momentum is clear, but maturity varies wildly across regions, teams, and SDLC stages. Two-thirds of teams in the region now embed GenAI in day-to-day delivery, yet true end-to-end integration remains rare: adoption is increasingly polarised: two-fifths of teams are already Pioneers automating six or more SDLC stages, while a third remain Observers using GenAI in just one stage or none at all.

Implications for technology leaders

Executives should move beyond isolated use cases and focus on scaling GenAI adoption across the SDLC. Clear adoption targets, common platforms and guardrails can reduce fragmentation, accelerate maturity, and enable consistent value creation across teams.

4.2 Broader coverage delivers stronger performance

Theme analysis

Our analysis shows a direct link between the number of SDLC stages augmented with GenAI and improvements in delivery speed and quality. When GenAI is embedded in more stages of the lifecycle, performance gains compound across release frequency, test coverage, defect rates and throughput. When GenAI shows up in more of the lifecycle, everything moves – ideas ship faster, quality improves, and the numbers start to speak for themselves.

Pioneers, who use GenAI across six or more SDLC stages, average 75 releases each year, compared with 41 among Observers. As AI expands across design, testing, deployment and maintenance, release cycles shorten and release confidence increases. Among regional respondents, 84% report a moderate-to-significant acceleration in delivery speed and an equal proportion seeing improvements in code quality as GenAI becomes part of everyday workflows. The pattern is consistent regardless of team size or sector: GenAI is most effective when applied throughout rather than in isolated stages, where the adoption should be done in gradual manner starting with one or two stages before scaling out to the other ones.

Implications for technology leaders

Executives should prioritise expanding GenAI coverage across the SDLC. A staged scaling approach, supported by common platforms, standards and enablement, helps teams compound performance gains while maintaining control as adoption increases.

4.3 Outcomes are unlocked through measurement

Theme analysis

Measurement is emerging as a decisive differentiator. Without it, results remain circumstantial; with it, outcomes turn into evidence to guide investment. When teams track defect rates, nine in ten teams who track defects see fewer numbers when leveraging GenAI in their SDLC - demonstrating the value of structured measurement in validating impact.

The same is true for productivity. Teams that measure cycle time, backlog movement and manual effort saved can pinpoint where GenAI is generating value and where corrective action is needed. Yet measurement is far from consistent across the market. Many Observers and early Experimenters rely on anecdotal indicators rather than structured metrics, limiting their ability to quantify progress, build business cases or detect emerging risks. For CIOs and CTOs, measurement is not a technical detail – it is a strategic enabler for scaling GenAI responsibly and proving its contribution to speed and quality.

Implications for technology leaders

Executives should define a small, consistent set of outcome focused metrics and embed measurement into GenAI initiatives from the outset. Linking adoption to delivery, quality and productivity metrics enables evidence based investment decisions and supports responsible scaling.

4.4 Barriers change as maturity increases

Theme analysis

Barriers evolve as organisations move from early adoption to scaled GenAI. Security dominates the concerns of Observers, with nearly half citing it as their primary obstacle. As organisations progress along the maturity curve, challenges shift towards compliance obligations, access to specialised skills and governance requirements. Pioneers, for example, are far more likely to report difficulties with model oversight, evaluation frameworks and internal capability building.

As teams progress from pilots to production, model choices reflect this shift. Closed-source models remain the most widely used type of GenAI in augmented SDLCs at 41%, with open-source models used far less. Many organisations lean toward closed systems because they promise smoother integration with existing platforms, stronger vendor support and clearer security assurances. These preferences show how teams prioritise stability and predictability as they scale GenAI across delivery workflows, especially when they are still building confidence in governance, observability and long-term operating models.

Across the region, security, skills and cost form a triad of universal barriers (37.7%, 36.3%, and 35.5% respectively). However, the nature of these barriers changes with maturity: Observers over-index on security and cost hesitation, while Pioneers face expertise gaps, evaluation frameworks and the need for robust oversight mechanisms. This underscores the need for phased adoption. Early-stage teams require strong security guardrails, while more mature teams require structured governance, compliance frameworks and talent programmes to support scale. This underscores the need for phased adoption. Early-stage teams require strong security guardrails, while more mature teams require structured governance, compliance frameworks and talent programmes to support scale.

Implications for technology leaders

Executives should align controls, investments and operating models to maturity level. Early-stage teams require strong security guardrails and clear usage policies, while more advanced teams need structured governance, compliance frameworks, evaluation mechanisms and targeted capability building to scale safely.

4.5 Drivers evolve as teams scale GenAI

Theme analysis

Drivers also shift as teams mature. Early teams adopt GenAI primarily to boost productivity, increase speed and stimulate innovation – the top three motivators that push development teams to adopt GenAI in their SDLC.

Observers are motivated mainly by quick wins such as improving productivity (49%), speed (48%), and innovation (47%) the top answers. They under-index across nearly all other drivers, with just 19% citing scalability as a motivator, showing they have not yet felt the challenges of operating at scale.

Pioneers tell a different story – they outperform on every key driver – especially in scalability (+30 percentage points) and productivity (+18 percentage points). For Pioneers, GenAI is no longer a single-use tool but a multi-benefit platform that delivers scalability, reliability, cost efficiency, collaboration and quality improvements.

Implications for technology leaders

Executives should evolve success criteria as GenAI adoption matures. Moving beyond short-term productivity and speed gains to platform level outcomes such as scalability, reliability and cost efficiency helps sustain value as GenAI becomes embedded across delivery workflows.

4.6 The future SDLC is agentic

Theme analysis

The future of software delivery is agentic. Agentic workflows – where multiple AI agents coordinate complex tasks – are rapidly moving from pilot to standard practice, reshaping roles and processes as organisations prepare for a more automated SDLC.

Seven emerging trends are shaping how teams view GenAI's role in the SDLC.

1. There is broad confidence that GenAI will automate routine coding tasks and accelerate software delivery, with agreement exceeding 60% across all tiers and reaching the high-80s among Pioneers
2. Optimism grows with maturity that GenAI will reduce the need for manual testing, rising from 51% of Observers to 77% of Pioneers
3. Concerns around unexplained issues persist across all groups—roughly one-third to two-fifths agree this remains a real risk
4. Teams increasingly see GenAI as a development powerhouse, even as questions remain around creativity and originality
5. Standards, security and compliance emerge as essential guardrails, particularly for mature teams seeking responsible scale
6. Expectations evolve as experience grows: mature teams push for deeper integration, stronger training and heavier automation
7. The talent landscape reflects this shift. More than half of surveyed teams (54%) identify software developers as the most impacted SDLC role, as GenAI tools reshape coding. 34.2% of respondents' teams selected database administrators and quality assurance engineers as the second most impacted roles, highlighting the power of GenAI in following structured pre-defined steps for database creation and test cases automation.

Together, these seven beliefs illustrate how organisations are recalibrating their SDLC strategies as GenAI moves from experimentation to agentic automation.

What executives should do

Executives should prepare for an agentic SDLC by investing in governance, skills and operating models that support higher levels of automation. Clear standards, robust oversight and targeted reskilling are critical to safely integrating agentic workflows while maintaining control, accountability and delivery quality.

05

Call for Action: a roadmap for CIOs, CTOs and delivery leaders

05 Call for Action: a roadmap for CIOs, CTOs and delivery leaders

1	2	3	4	5
Build an AI Ops squad and agentic cell within your delivery team	Scale GenAI across the SDLC, not just coding	Make measurement non-negotiable	Focus on AI-Augmented SDLC talent development	Embed governance by design

1- Build an AI Ops squad and agentic cell within your delivery team

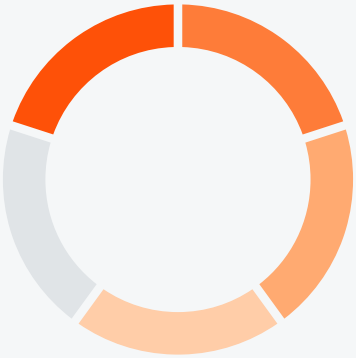
This provides the structure needed to deploy, monitor and govern AI agents across delivery workflows. Five enablers underpin this capability:

Early compliance guardrails

Establish a baseline set of controls before the first production release, including logging, data protection impact assessments and geo-fencing to align with regional requirements.

Full-stack observability

Instrument the entire SDLC, from development and testing through to production, and route logs into LLM-based diagnostics to accelerate root-cause analysis, with human-in-the-loop feedback to validate and refine insights.



Self-healing tests and continuous refactoring loops

Pair code-generation agents with automated test regeneration and set aside sprint capacity for ongoing refactor cycles.

Domain prompt libraries

Treat prompts as shared assets. Create a version-controlled library, encourage cross-team contribution and manage prompts with the same discipline as code.

Cross-functional squad composition

Bring together developers, QA engineers, operations, data specialists and compliance leads in a single adoption pod to ensure alignment across the SDLC.

2- Scale GenAI across the SDLC, not just coding

Start the transition journey in gradual fashion: Performance gains don't come from experimenting with silos; they come from compounding improvements across the lifecycle. Executives should focus on augmenting the SDLC with GenAI stage by stage, expanding isolated pilots into an integrated end-to-end approach while it's evident to truly unlock ultimate value, GenAI should be applied across multiple stages of the SDLC, not just coding, but also requirements, testing, QA, and maintenance. Broadening adoption reduces drift, prevents quality issues, lowers defect rates, and removes delivery slowdowns.

To drive this expansion effectively, software development teams should:

01 Extend GenAI coverage across upstream activities such as requirements gathering, refinement and design, ensuring clarity and reducing downstream rework

02 Embed GenAI into testing, QA and validation cycles to accelerate defect detection and improve reliability across releases

03 Integrate augmentation into maintenance and operations so improvements continue post-deployment and support teams benefit from faster diagnostics

04 Ensure consistency across teams and stages to prevent fragmentation, align delivery practices and maintain a stable, end-to-end workflow

05 Scale improvements cumulatively so gains in one stage reinforce performance across the rest of the lifecycle

3- Make measurement non-negotiable

Begin measuring now. Treat GenAI adoption in the SDLC as a continuous journey, not a one-time switch. Define success criteria early, establish a baseline and track outcomes as GenAI expands across stages. Consistent measurement not only verifies value creation but also reveals bottlenecks before they hinder delivery.

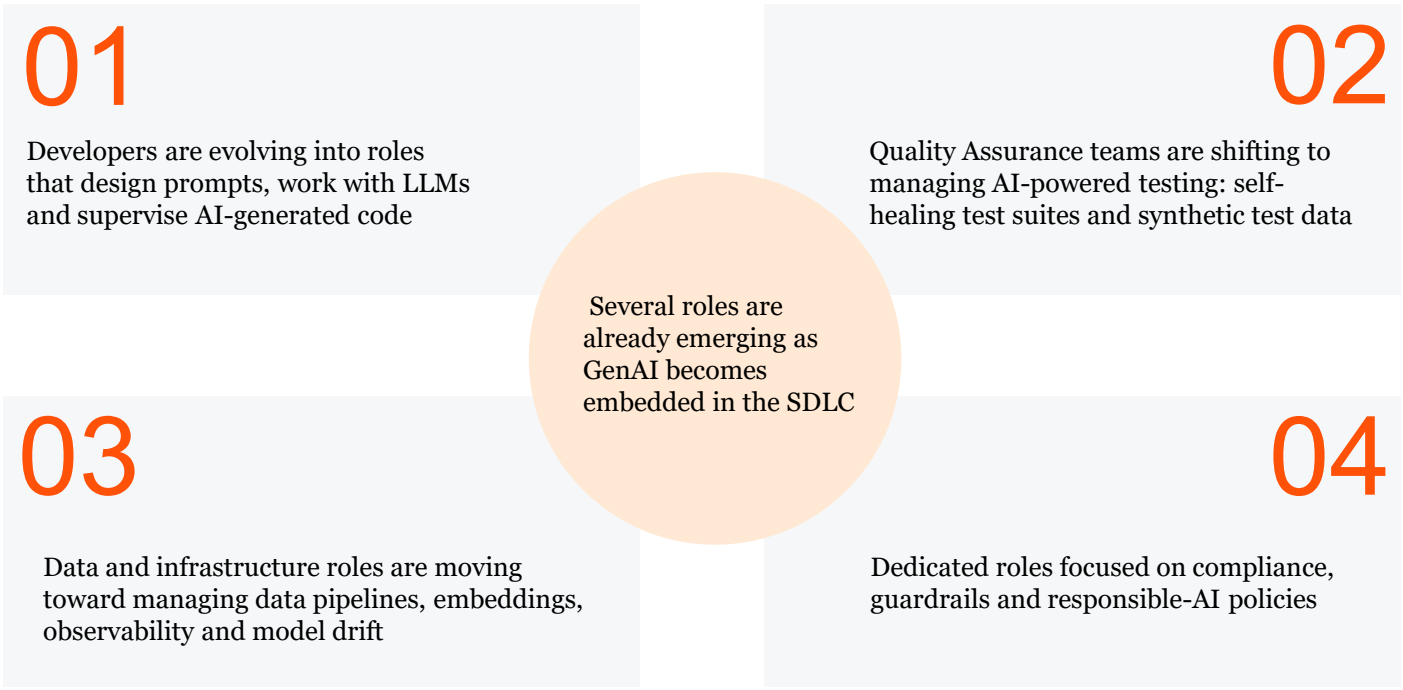
Build a portable tooling strategy. Design for flexibility from day one: start with closed-source models for speed, but architect for a hybrid future to avoid vendor lock-in. Practically, this means abstracting model calls behind adapters, storing prompts and versioning in the code repository and requiring exportable evaluation logs. This aligns with current market patterns—41% using closed systems today, while 30% are already shifting toward hybrid setups, especially among Pioneers.

With the foundation in place, measurement becomes the differentiator. Informed by survey insights, the sample KPIs below illustrate what matters most to track as GenAI adoption scales across the SDLC:

1. **Breadth index:** Measures how many SDLC stages are meaningfully augmented by GenAI, indicating the shift from isolated pilots to end-to-end, scaled adoption.
2. **Release cadence:** Tracks how often software is released per year to assess whether GenAI adoption is accelerating time-to-market.
3. **Time/quality composite:** Combines delivery speed and quality metrics to ensure productivity gains are achieved without increasing defects or rework.
4. **Defect density trend:** Compares defect rates before and after GenAI adoption, alongside repository coverage, to quantify quality improvements.
5. **Cost goals vs. realised:** Links targeted OPEX reductions with actual savings and defect-rate improvements to validate sustainable economic impact.

4- Focus on AI-Augmented SDLC talent development

Plan skills evolution around role transitions. Leaders must define clear upskilling pathways and prepare teams for new responsibilities created by GenAI-enabled workflows.



Across all roles, context engineering is becoming essential, designing, structuring and managing the information GenAI relies on to deliver quality outputs. As GenAI adoption scales, this capability becomes foundational to productive, reliable software delivery.

5- Embed governance by design

All IT leaders need to ensure, that software delivery teams adopting GenAI in their SDLC lifecycle, establish strong observability measures from used model evaluations, data residency routing, and cross-functional governance controls. This means:

Setting clear expectations from the outset,

ensuring teams continuously monitor how models perform, how data is handled, and how governance decisions are coordinated across Agentic SDLC functions.

Leveraging GenAI in identifying governance gaps and SDLC issues

before they escalate, maintain alignment with regulatory requirements, and ensure that GenAI adoption remains transparent and well-controlled.

Ensuring governance as an integral part of solution design not an afterthought –

strengthening accountability, reducing operational and compliance risks, and creating the conditions needed to scale GenAI safely and responsibly across delivery workflows.

Evolving responsible AI-Agentic SDLC policies

to effectively enable an AI-augmented SDLC. This change is necessary to secure consistent support, alignment, and buy-in across leadership, delivery teams, and risk and compliance functions.

> "GenAI is no longer an enhancement to software delivery, it is becoming its operating system. Organisations that move early to build governance, skills and end-to-end augmentation will not only deliver faster and with higher quality but will also shape how software is engineered across the region in the years ahead."

Derar Saifan

Technology Consulting Partner, and Digital Strategy & Realisation Solution Leader,

PwC Middle East

About the survey

This research study explores how Generative AI (GenAI) is influencing the Software Development LifeCycle (SDLC) across the Middle East, including the GCC countries, Jordan, and Egypt. The survey engaged 377 technology leaders and professionals across 8 countries, representing a mix of 91 CTOs, 54 CIOs, 93 IT Directors, and 139 IT Managers. This survey comprises of 38 questions, focusing on three core dimensions:

- GenAI adoption levels (2 questions)
- GenAI impact on SDLC (28 questions)
- GenAI Sentiment and Future Outlook (8 questions)

Country of Residence								**Gender**		**Age Group**			
Bahrain	Egypt	Jordan	Kuwait	Oman	Qatar	Saudi Arabia	United Arab Emirates	Male	Female	18-24	25-34	35-44	45+
51	40	49	41	47	41	41	67	270	107	15	115	165	82

The distribution of **audiences' roles that participated in the survey** are:

24% are CTOs

14% are CIOs

25% IT directors

37% IT manager or similar

The study examines the adoption levels, benefits, challenges, and organisational impact of GenAI as it transitions from proof-of-concept to production-grade use in software delivery.

Click here to access the full analysis

Survey Methodology

This research is based on a quantitative survey of 377 technology leaders and professionals across the Middle East.

Respondents

Participants included CIOs, CTOs, IT directors and IT managers with direct involvement in software delivery and technology decision-making. The sample represents a mix of senior roles responsible for strategy, delivery oversight and operational execution across the software development lifecycle.

Geographic scope

Responses were collected from eight countries across the GCC, Jordan and Egypt, providing a regional perspective on GenAI adoption and maturity.

Timing

The survey was conducted between 9 and 26 May 2025.

Survey structure

The survey comprised 38 structured questions covering three core areas:
- levels of GenAI adoption across the seven stages of the software development lifecycle (SDLC)
- the impact of GenAI on delivery speed, quality, productivity and release cadence
- sentiment, risk perception and outlook, including readiness for agentic workflows

Analysis

Results were analysed using quantitative methods, including correlation analysis to examine relationships between the breadth of GenAI adoption across the SDLC and key performance and quality outcomes. To support this analysis, results were segmented into four GenAI adoption archetypes to capture differences in maturity and integration across organisations:

- **Observers**
  Teams that are slow to adopt and careful in exposing their SDLC to GenAI.

- **Experimenters**
  Teams that are experimenting with GenAI adoption on specific tasks but maybe not in a sustained way.

- **Integrators**
  Teams that have adopted GenAI into their SDLC workflows and are focusing on specific tasks in a sustained way.

- **Pioneers**
  Teams that have been already adopting GenAI on every aspect or project in their SDLC workflows with full augmentation.

Interpretation

Findings are based on self-reported data and reflect practices and perceptions at the time of the survey. Results should be interpreted as indicative of trends and relative maturity across the region, rather than as absolute performance benchmarks.

To access the full analysis please click here.

Contact us

Derar Saifan

Technology Consulting Partner, and Digital Strategy & Realisation Solution Leader,
PwC Middle East

Mohammad Hijjeh

Technology Consulting Director,
PwC Middle East

Layan Sbeitan

Technology Consulting Manager,
PwC Middle East