



AI/Run™

.Transform

Changing the present and shaping the future of AI-Native Engineering

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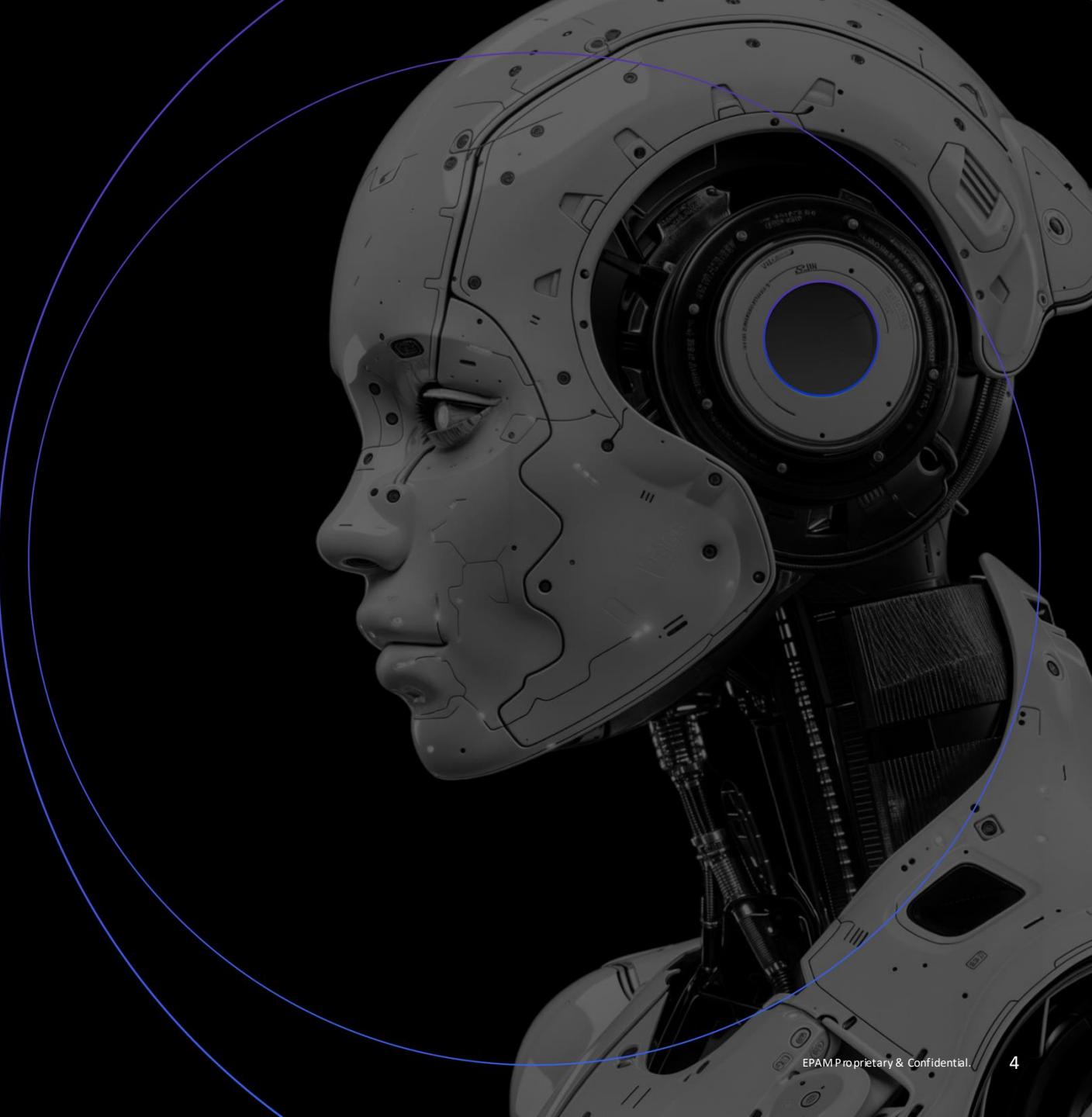
Agenda

- 01** State of AI in Software Development: Key Themes for 2025
- 02** AI Adoption Strategy
- 03** EPAM's Expertise & Experience in End-to-End SDLC Capabilities
- 05** Lessons Learned from Large-Scale Client Adoptions

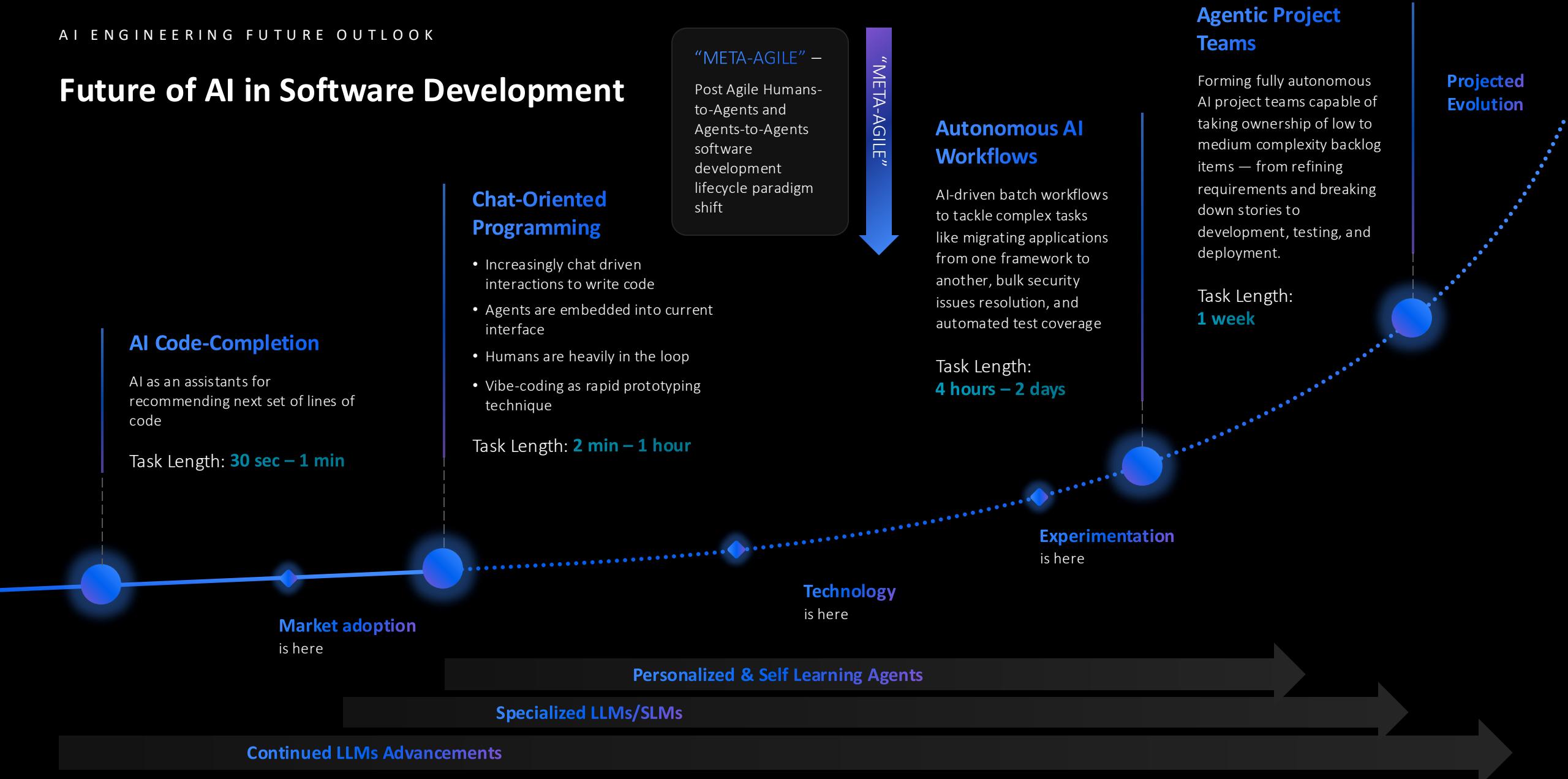
01

State of AI in Software Development: Key Themes for 2025

- Industry AI spend
- Models rapid progression
- Maturing technology and techniques
- Main themes and trends



Future of AI in Software Development



Gigantic Investments into AI Infrastructure



EXECUTIVE ORDER ON ADVANCING UNITED STATES LEADERSHIP IN ARTIFICIAL INTELLIGENCE INFRASTRUCTURE

Building AI in the United States requires enormous private-sector investments in infrastructure, especially for the advanced computing clusters needed to train AI models



\$29+ billion

Google reported spend on AI in 2024 is 29B.

*The company is continuing to spend big on AI.
Alphabet's capital expenditures in 2025 would be higher than this year.*

[Source](#)



~\$80 billion

2024 AI spend was \$46B.

In FY 2025, Microsoft is on track to invest approximately \$80 billion to build out AI-enabled datacenters to train AI models and deploy AI and cloud-based applications around the world

[Source](#)



\$19+ billion

2024 AI spend was \$19B.

AWS plans to invest at least \$11 billion in Georgia alone to expand infrastructure to support AI and cloud technologies

[Source](#)



\$27+ billion

2024 AI spend was \$27B.

Meta expect spending will grow in 2025, including a "significant acceleration in infrastructure expense growth" to support Meta's AI products.

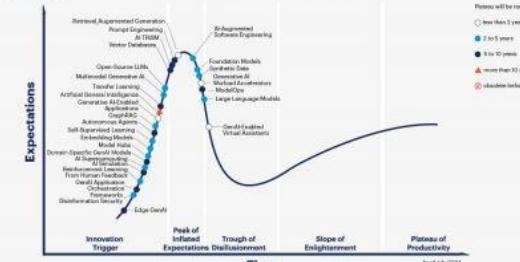
[Source](#)

The “Year of Agents”



Gartner

Hype Cycle for Generative AI, 2024



AI agents are on track to reach the top of the Gartner Hype Cycle in 2025.

IDC

Microsoft

IDC'S 2024 AI OPPORTUNITY STUDY
Sponsored by Microsoft

Companies are gravitating to more advanced AI solutions.

In the next 24 months, more companies expect to build custom AI solutions tailored directly to industry needs and business processes, including custom copilots and AI agents.



[CES 2025 Keynote](#)



[Microsoft CEO Note](#)



[Google Cloud Blog](#)



[Amazon Q Developer: Transform](#)

Nvidia CEO Jensen Huang stressed upon the **significance of agentic AI**, that could eventually **revolutionize the workforce** and provide a major boom for those companies who are deeply invested into agentic AI research and development.

Industry is approaching the next stage of AI development, with enterprises globally focusing heavily on agentic AI adoption. Microsoft's focus in the year ahead will be on building out its agentic AI capabilities

We've gone from experimentation to seeing **hundreds of gen AI agents come to life** in the real world.

Amazon launches the **first generative AI-powered assistant** for transforming .NET, mainframe, VMware, and Java workloads accelerating large-scale transformation of enterprise workloads with domain-expert generative AI agents

AI Production Adoption, Strategy Consolidation, and Measurable Outcomes Focus Area



Implementation challenges will stall more than 50% of agentic and AI agent efforts.

[Source](#)



IDC Chief Research Officer:

"

In 2024 organizations have conducted an average of **37 proofs of concept**, but **only about 5** have moved into production. It's been a year of intense experimentation.

What will it take to move from experimentation to adoption? The key areas are:

- Enterprise AI strategy
- Unified governance model
- Managing the technology costs associated with GenAI"

Gartner How AI Agents Will Disrupt Software Engineering, Sept 24, 2024

Integrating AI agents throughout a developer's entire workflow will be immensely challenging.

Recommendations:

- Enhance developer experience by **IMPLEMENTING A PILOT** that focuses on one phase of the SDLC where developers will work with an AI agent.
- Integrate AI agents **STRATEGICALLY** to enhance elements of developer experience. **PRIORITIZE ADOPTION OF TOOLS** that address your developer's top friction points.
- **MEASURE THE IMPACT OF AI AGENTS** on developer productivity and satisfaction by defining relevant key performance indicators (KPIs).
- Conduct regular reviews to measure the business impact of AI agents, and adjust your approach for using AI agents based on developer feedback and performance data.

AI Technologies and Trends – September 2025

Towards Deterministic LLMs

- New research from Thinking Machines lab claims to achieve [deterministic LLM outputs](#).
- Deterministic LLMs would behave [more like traditional computer programs](#) and their outputs would be reproducible..

Ambient Assistance: From Autocomplete to Proactive Edits

- Ambient assistance is evolving from simple autocomplete to a [more powerful interaction mode](#), where AI suggests edits without being explicitly prompted.
- GitHub Copilot has released [Next Edit Suggestions](#) in public preview for JetBrains IDEs.
- Cursor's Tab completion now suggests 21% fewer edits, with a [28% higher acceptance rate](#).

AI Code Assistants Expand Beyond Developer Role & Enter the Enterprise

- Support of AI Agents in popular in Enterprise IDEs, not only VSCode like ones (e.g. Windsurf [plugin for IntelliJ](#))
- Launch and advancements of [Background and Multi-device Agents](#) (Cursor) that allow to expand AI impact beyond coding use case.
- Transition [from dev centric IDE to a more agent-like platform](#) with features for workflow automation and multi-step collaboration (Windsurf)

Prompt Engineering -> Context Engineering

- Context Engineering = [dynamically assembling just-enough task framing + relevant retrieved evidence + episodic memory + tool specs](#) each turn—an orchestrated upgrade from static prompt craft
- It optimizes retrieval, re-ranking, compression and long-vs-retrieval trade-offs to stay precise and cost-efficient within context windows

Companies share AI adoption stories

- At Booking.com, [65% of developers use AI tools](#); the industry median is 50%.
- At WorkHuman, AI contributed to an [11% improvement in developer experience](#) across the organization.
- Developers at WorkHuman who regularly used AI showed a [15% increase in velocity](#) compared to non-users.
- The cost of AI-enabled developer tooling [can reach several hundred dollars per developer](#) per month.

Codebases are becoming AI-first

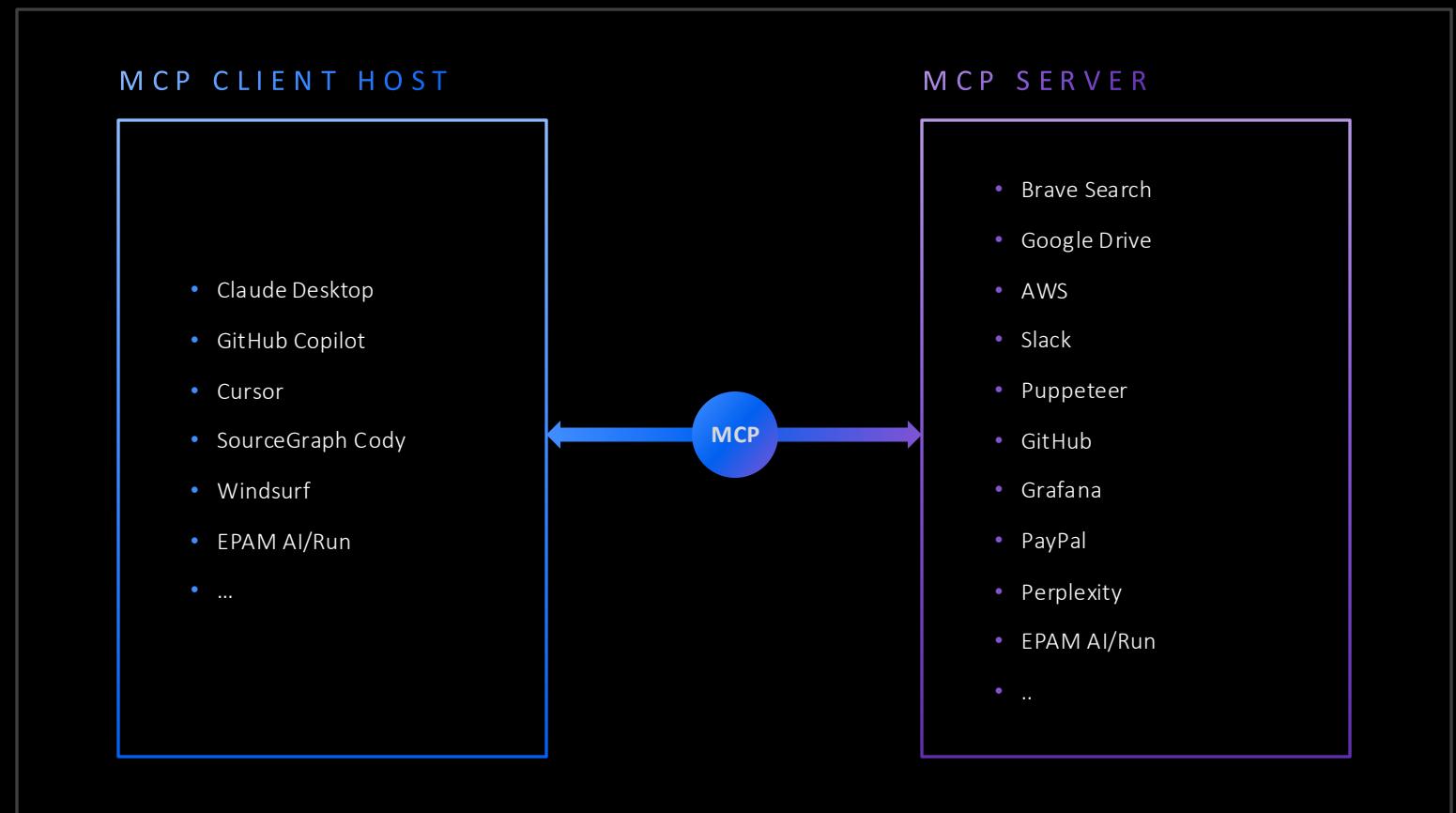
- Teams are now actively modifying their codebases to [make them more understandable for AI agents](#).
- They focus on maintaining [clean service boundaries](#) and define [explicit interfaces](#) within these boundaries to clarify interactions.
- Teams now create [documentation for both human developers and AI agents](#), with AI-focused docs emphasizing code samples and omitting visuals.

MCP Is Trending, Enabling the Shift Toward More Integrated, Context-Aware AI

Model Context Protocol is a standardized open protocol that simplifies how AI models and agents interact with external data and tools

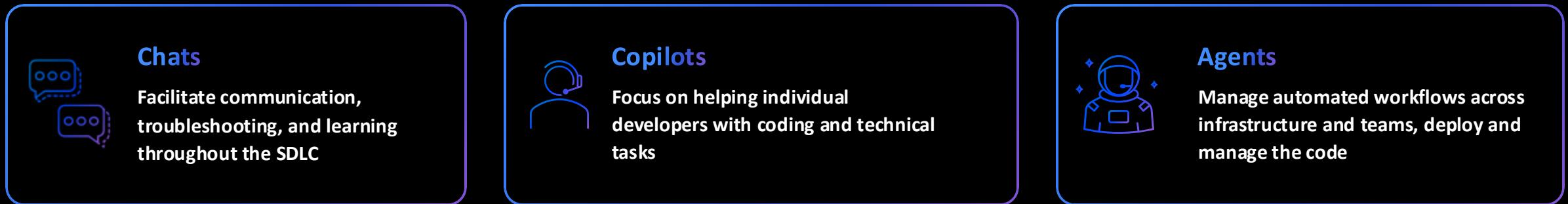
WHY is it popular?

- Solves integration problems
- Strong community and rapid, widespread adoption
- Open, model-agnostic, and backed by a major AI player
- Actively improved with ongoing developer education



Awesome MCP Servers: <https://mcpservers.org/>

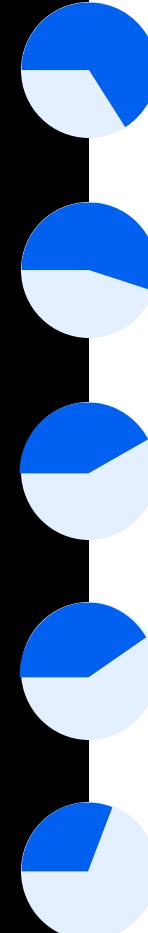
Decoding the Trio: Chats, Copilots and Agents in SDLC Workflows



Aspect	Chats	Copilots	Agents
Scope	Provide conversational assistance	Assist individual developers	Automate workflows & systems
Primary Use Case	Problem-solving & collaboration	Code writing & debugging	Workflow orchestration
Interaction	Natural language-based queries	Embedded in coding tools	Autonomous, event-driven
Focus	Knowledge sharing & communication	Developer productivity	Process efficiency
Stage in SDLC	Cross-stage use (requirements, testing, etc.)	Development phase	All stages of SDLC
Examples	ChatGPT, Bing Chat, Google Bard, EPAM DIAL AI	GitHub Copilot, CodeWhisperer, Amazon Q, Cursor, EPAM ELITEA, Windsurf (ex.Codeium)	EPAM ELITEA, EPAM CodeMie, Amazon Bedrock, Microsoft Copilot Studio, Vertex AI Studio

AI ‘Sabotaging’: Numbers Revealed

The Writer 2025 generative AI survey gathers insights and experiences from 1,600 knowledge workers, including 800 C-suite executives and 800 employees.



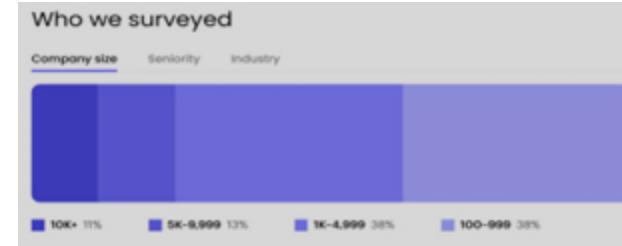
66% of executives reported increased tension in the organization caused by AI-related initiatives.

55% of employees were described as “in denial,” “resistant,” “reluctant,” or “indifferent” about AI integration.

42% of executives stated that generative AI is “tearing their company apart.”

41% of Gen Z employees admitted to resisting or not using AI tools.

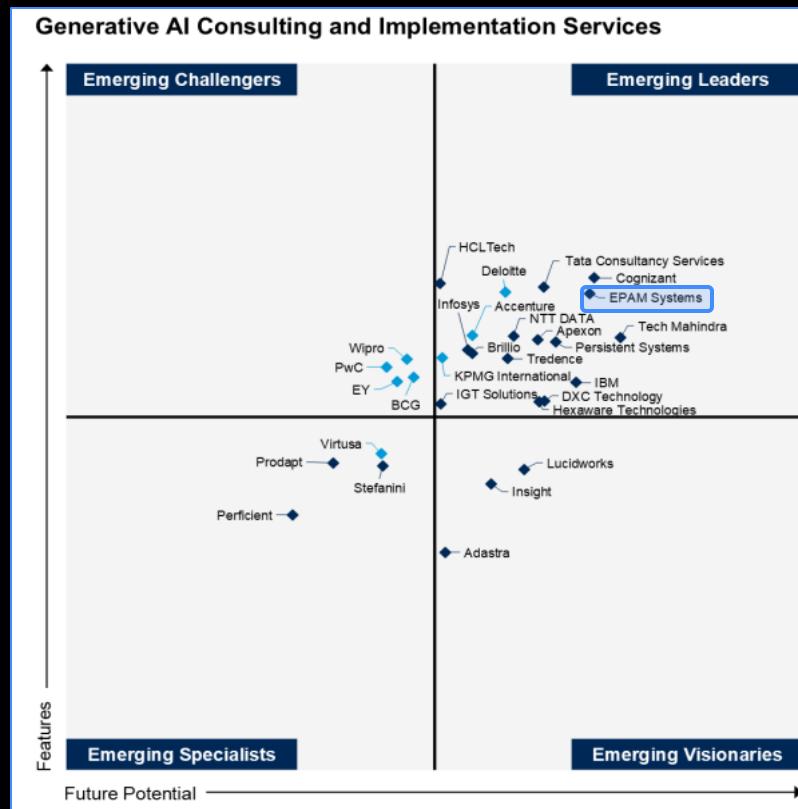
31% of all employees said they are actively resisting or sabotaging their company’s AI efforts.



Source: [The Writer 2025 AI Survey](#)

EPAM is Leading GenAI-Enabled Engineering

EPAM is an Emerging Leader in Gartner's Emerging Market Quadrant for Generative AI Consulting and Implementation Services.



EPAM AI/Run Developer Agent is leading [SWE-bench](#) - industry-standard AI Coding Assessment Evaluation Toolset for software engineering.

SWE-agent-LM-32B, the open-weight SotA on Verified, trained on synthetic data generated by SWE-smith. More in the paper!							
Bash Only	Verified	Lite	Full	Multimodal			
Verified is a human-filtered subset of 500 instances (details)							
Filters:	No Filters	All Tags					
Model	% Resolved	Org	Date	Logs	Trajs	Site	
EPAM AI/Run Developer Agent v20250719 + Claude 4 Sonnet	76.80	epam	2025-08-04	✓	✓	View	Edit
ACoder	76.40	ds	2025-08-19	✓	✓	View	Edit
TRAЕ	75.20	-	2025-06-12	✓	✓	View	Edit
Harness AI	74.80	dk	2025-07-31	✓	✓	View	Edit
Lingxi-v1.5_claude-4-sonnet-20250514	74.60	g	2025-07-20	✓	✓	View	Edit
Refact.ai Agent	74.40	tf	2025-06-03	✓	✓	View	Edit
Tools + Claude 4 Opus (2025-05-22)	73.20	AI	2025-05-22	✓	✓	View	Edit
Tools + Claude 4 Sonnet (2025-05-22)	72.40	AI	2025-05-22	✓	✓	View	Edit
Qodo Command	71.20	g	2025-07-15	✓	✓	View	Edit
Bloop	71.20	b.	2025-07-10	✓	✓	View	Edit

EPAM Enterprise GenAI Orchestration Platform DIAL is now on AWS Marketplace

The screenshot shows the AWS Marketplace listing for "EPAM AI DIAL". The page title is "EPAM Expands Collaboration with AWS to Advance Generative AI Solutions" (May 5, 2025) by PR Newswire. The listing details the collaboration between EPAM Systems and AWS to develop generative AI solutions for migration and modernization. It includes links to the AWS Marketplace page and the EPAM AI/Run™ for AWS Migration and Modernization container image.

EPAM AI/Run

A practical approach to modern software engineering that leverages AI agents across the full SDLC to automate processes, accelerate quality feedback loops, and enable faster time-to-market while reducing costs.



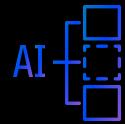
02

AI Adoption Strategy

- AI/Run – Enterprise Adoption Framework
- Phased AI Adoption

AI Adoption: Common Challenges

Adopting AI can be transformative, but clients often encounter hurdles such as resistance to change, misaligned workflows, and lack of measurable impact.



Integration of AI into Existing Toolchains

AI tools lack integration with common IDEs and require additional skills for effective use.



Organizational Resistance & Human Factor

People resist change and stick to familiar workflows, while limited training fuels AI scepticism and isolates enthusiasm.



Rapidly Evolving AI Tools and Lack of Standardization

The evolving AI tools market requires ongoing learning and adjustments, while the lack of standardized frameworks causes scattered efforts and limited team synergy.



Only limited potential of AI is realized

Productivity gains aren't scaling to team-level performance due to misaligned SDLC roles and poorly chosen AI use cases—either too complex or too narrow.



Hard to measure AI Impact and ROI

Without baseline KPIs, measuring AI impact is challenging, and role-based productivity metrics fail to reflect team or product-level performance.



Quality Gates & Security

Quality controls miss AI-generated code issues, and data security and privacy remain key concerns.

Key Learnings from EPAM Scaled Adoption Engagements

Pay Attention to Organizational Resistance & Human Factors

- People resist changing established workflows across all roles
- Cultural inertia plus lack of on demand training creates organization-wide skepticism
- Rapidly evolving AI tools may cause cognitive overload and adoption fatigue

Prioritize Integrating AI Tools into Existing Development Environments

- AI tools are not natively integrated into existing development environments or ways of working
- Most advanced AI capabilities only available in IDEs uncommonly used by enterprise developers

Ensure Teams Baseline and Measure AI Impact and ROI

- Missing baseline KPIs make true AI impact measurement difficult
- Poor use case selection: either too complex or too narrow for realistic AI capabilities

Avoid Individual Output Over Team and Product Performance

- AI increases individual productivity and flow but paradoxically decreases time spent on valuable work
- AI is hurting delivery performance: individual productivity boost → larger changes → higher instability
- High-performing teams and organizations use AI, but products don't seem to benefit

Monitor Quality Trends Linked to Growing AI Adoption (GitClear)

- Copy/Paste % is increasing to 12% and first time surpassed % of refactored code
- % of duplicated code increased 4 times over 2024, 8 times comparing with 2020
- AI-Driven Code Churn is Growing Rapidly - % of revised "1 month old" code increased from 70% to 80% in 2024

Monitor Fragmentation of AI Adoption, AI Strategy and Focus

- Siloed AI Initiatives challenged to deliver production ready applications
- Dedicated AI Lab maturity doesn't spread beyond its walls and not enabling entire organization transformation
- Lack of holistic focused strategy to address both extremes

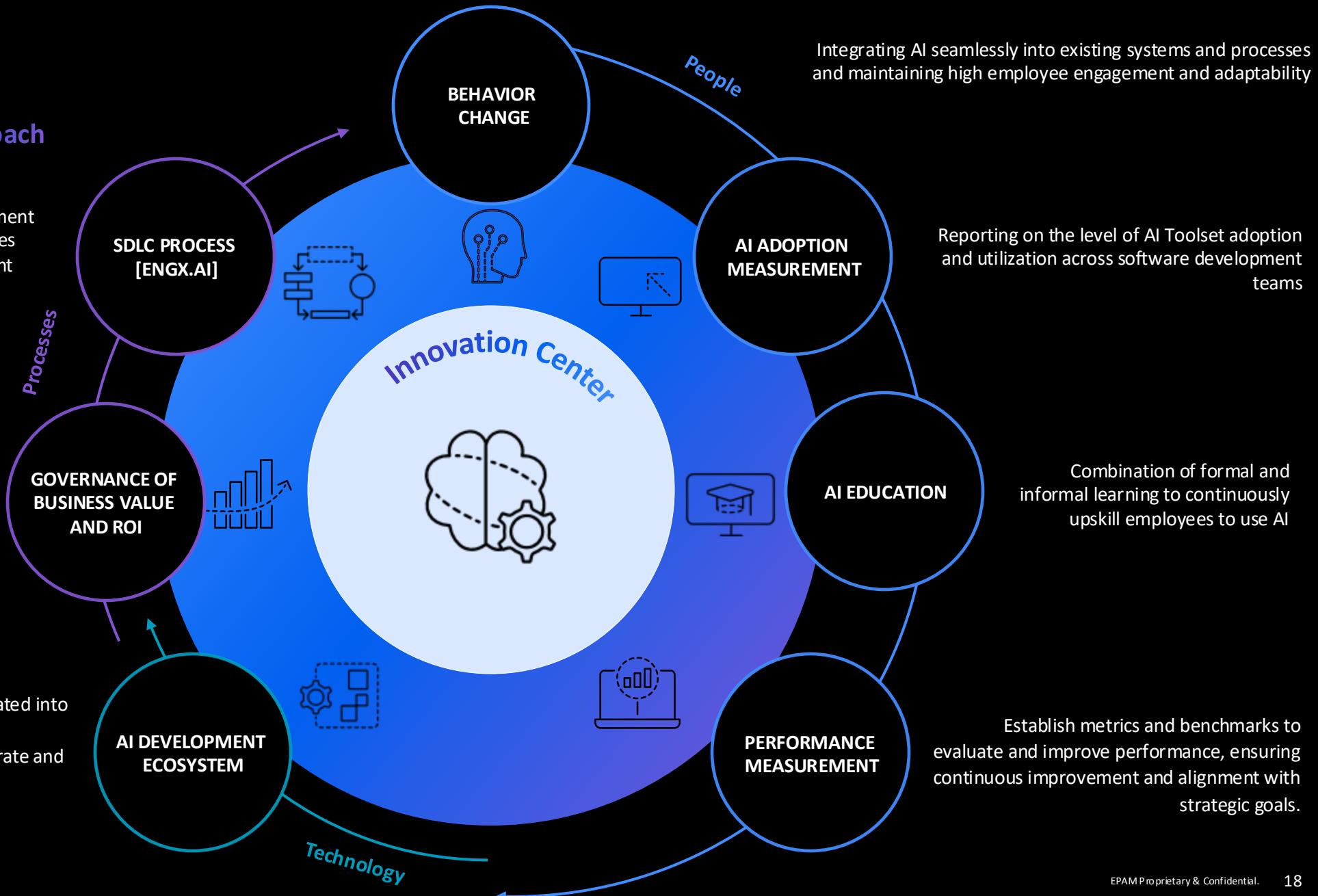
AI/Run Playbook

7 pillars of AI-driven approach

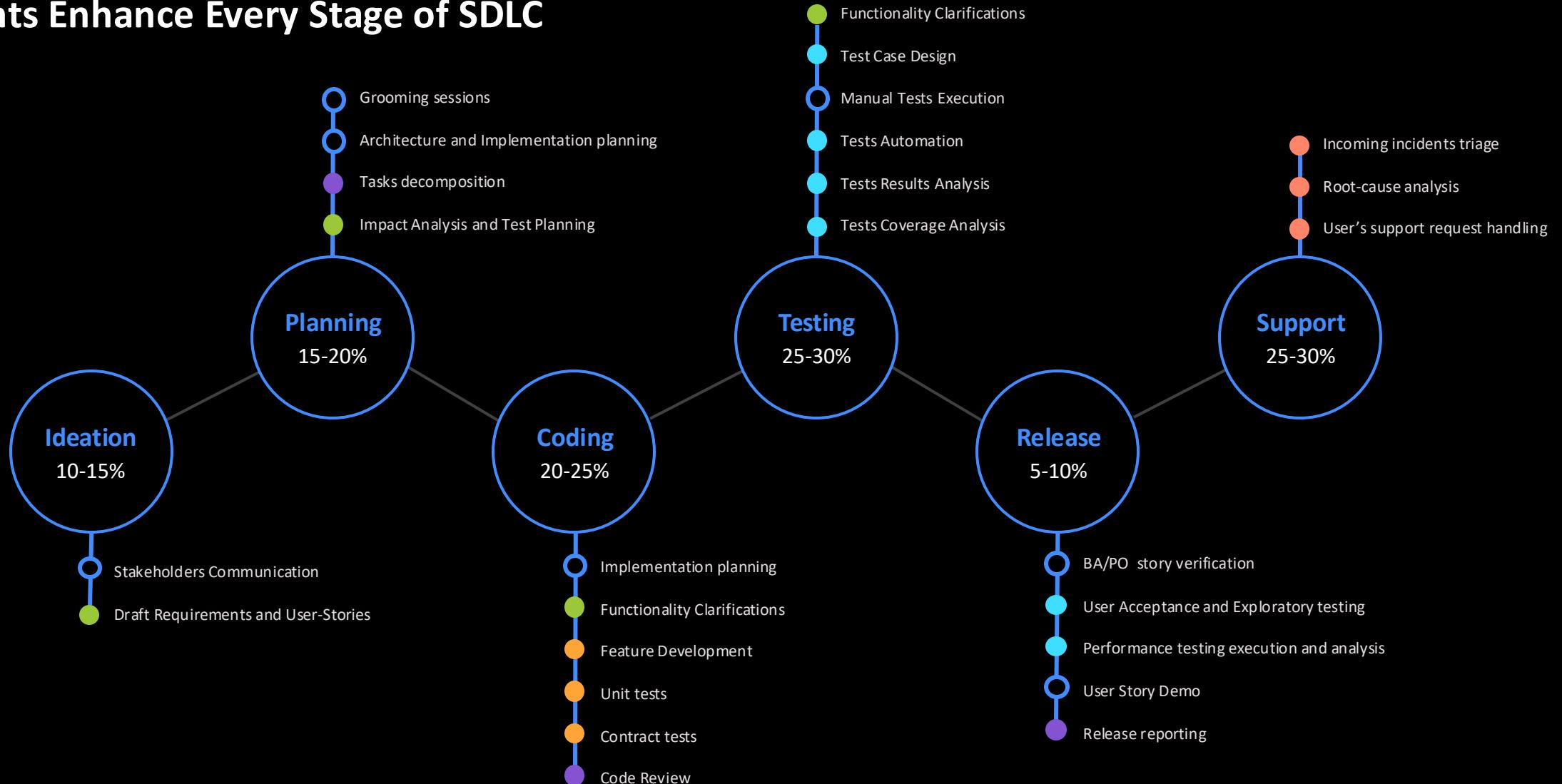
A comprehensive and mature development process to encapsulate the best practices and standards for software development performance enhanced by AI.

Understanding ongoing ROI from AI-driven software Development, prioritization of use cases, and required tools

AI tools, agents, and platforms are integrated into a single ecosystem. It aims to provide AI-supported automated solutions to accelerate and automate development.



Agents Enhance Every Stage of SDLC



Ready to Use AI-Infused Experiences to Get a Fast Feedback



User Stories Elaboration

- Helps to draft initial user-story using meetings transcripts
- Aids PO in preparing for grooming and implementation review sessions
- Speeds-up creation of acceptance criteria for user-stories



Tests Analysis & Planning

- Create a strategy of testing for user-story
- Collects required information and identify requirements gaps
- Creates test cases based on defined format
- Conduct test execution analysis to uplift test coverage based on defects



Code Reviewer

- Reacts on new merge request created and starts review without any delay
- Comment on areas for improvement according to coding standards used in the team
- Analyze and improve unit test coverage
- Can be called from IDE before pushing changes



Code to Documentation

- Reads code of your repositories, analyses and create a graph of dependencies
- Creates technical documentation from code as well as user documentation on exposed features
- Provides AI powered code assistant as a side product of documentation generation



Tests Automation Agent

- Test script in appropriate OOP and TAF.
- Create required Data for existing test automation framework.
- Integrate assistant with Git, Jira other tools
- Educate assistant on coding standards and processes for automated test development



Support Assistant

- Receives support requests through convenience channels such as email, team, webchat, etc.
- Answers the request by searching information in available data
- Helps users create support requests and track the progress



Agentic AI Ecosystem Maturity Capability Model

	Complexity Factors	Level 1: Experimental	Level 2: Operational	Level 3: Strategic
Channels Integration	<ul style="list-style-type: none"> • Behavioral shifts across teams • Integration channels diversity • Role-based customization 	Standalone Assistants 		
Agents Management	<ul style="list-style-type: none"> • Agent Operating Modes (sync, async, event-driven, etc) • Observability • Access Control • Workflow orchestration 	Embedded Assistants 		
Context Engine	<ul style="list-style-type: none"> • Content types and formats variety • Data pre-processing and normalization • Search & Rank • Memory 	Unified Experience 		
Evaluations	<ul style="list-style-type: none"> • Use-case based testing strategies • Evaluation infrastructure • Test benchmarks and data sets management 	Team-Owned Agents 		
LLMs	<ul style="list-style-type: none"> • Multi-Model Complexity • Vendor Landscape Evolution 	Shared Agent Library 		
Governance & Compliance	<ul style="list-style-type: none"> • Regulatory Alignment • Risk Management (security, ethics) • Usage Analytics & FinOps 	Agent Platform 		
		Static Data 		
		Dynamic Information 		
		Semantic Knowledge 		
		Ad-hoc Quality Checks 		
		Structured Testing 		
		Systematic Quality Controls 		
		Unguided Usage 		
		Model Hub 		
		Intelligent Model Routing 		
		Ungoverned Adoption 		
		Manual Controls 		
		Enterprise Compliance Suite 		

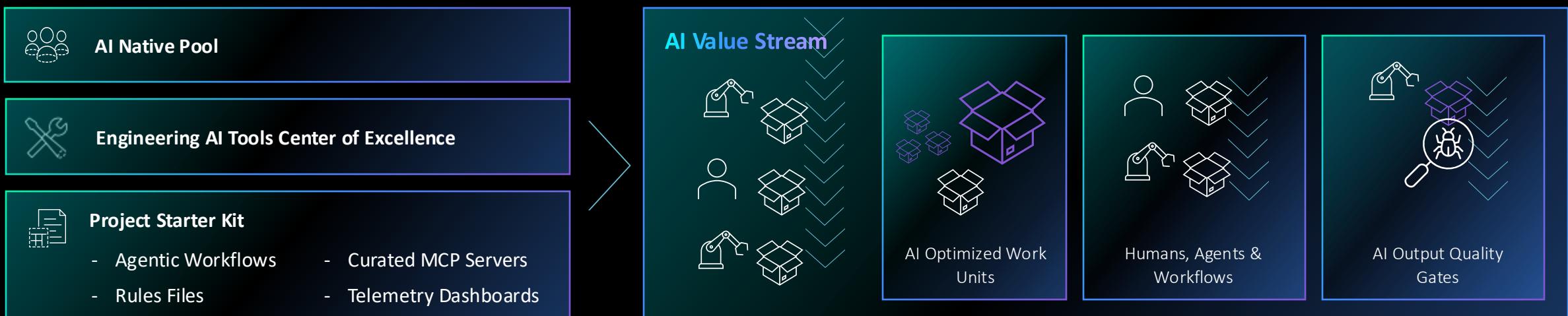
AI-First Delivery Teams

Approach Highlights

- Day-1 AI Fluency**
Every role is certified and 100% ai-adoption rate in sprint #0
- Curate Best-fit Agentic Toolchain**
EPAM AI Run/CoE-backed selection of SOTA agents and copilots, refreshed monthly
- AI-Optimized Work Units**
Optimized solution structure and role-based input tasks format calibrated for minimal human re-work
- Guard-railed Quality Gates**
AI output passes automated security and quality gates + human sign-off before merge
- Reinforcing Improvements**
Telemetry-driven agent tuning every sprint & templatization for max AI automation

Operating Model at a Glance

- Full-SDLC AI Stack**
Reqs → IDE → CI/CD → QA AI agents/assistants recommended by EPAM AI/Run CoE experts
- Productivity Growing Targets**
↑Throughput, ↑DORA deployment-frequency, ↓MTTR, ↑Defect-containment
- Value-Stream Control Tower**
Deliver pipeline optimization, agent vs human mix
- Transparent Metrics Discipline**
Dashboards, agent audit trail, ROI tracker



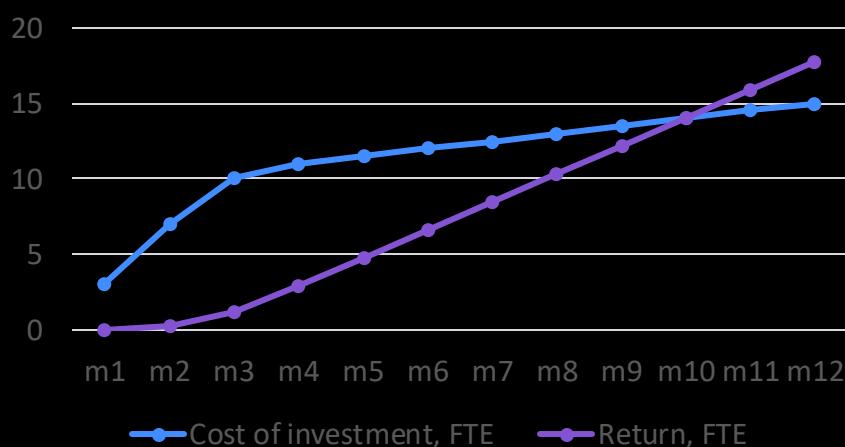
Build Business Case for AI SLDC Investment, Benefits, and ROI Calculator

One of the primary functions of the Center of Excellence is to define KPIs and develop business cases based on thorough analysis and comprehensive discovery.

ROI in 10 Months

Anticipated total boost of efficiency about 20%

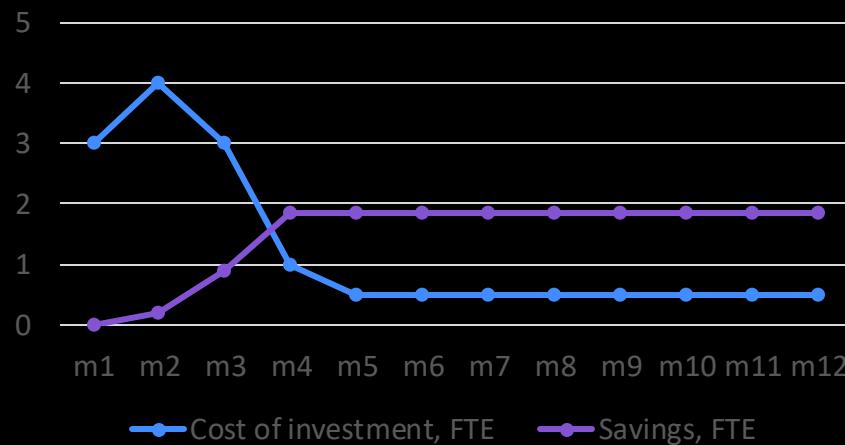
Accumulated cost vs accumulated savings, FTE



Savings from 3rd month

Swift tangible results

Monthly based costs vs savings, FTE



Sample: ROI Calculation for AI Adoption

Calculation Baseline

Team Composition

- 5 functional QA
- 5 test automation

Selected AI use cases

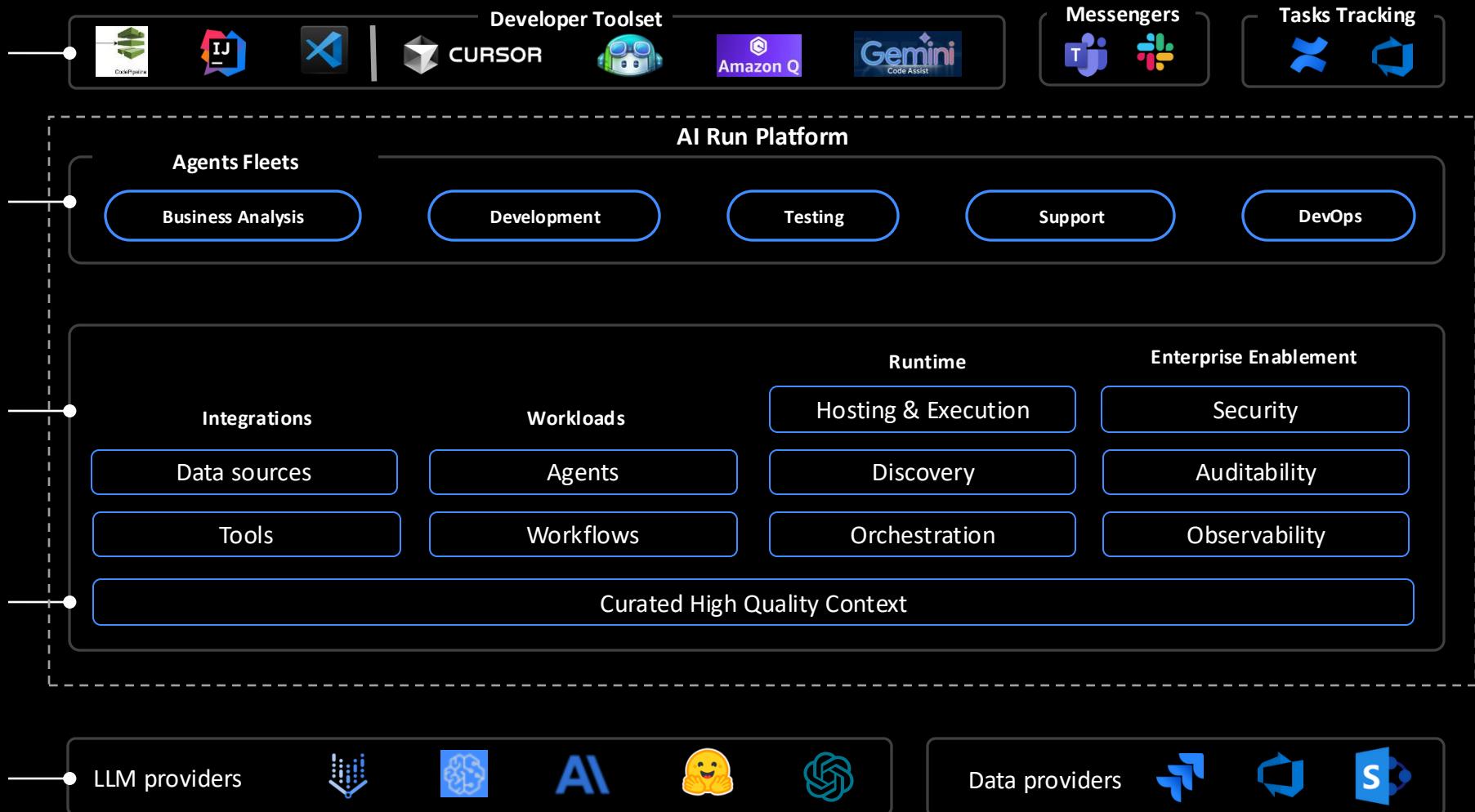
- Test case authoring
- Test automation code authoring and scripts maintenance

Investments Details

- 3 months
- 3 FTE for AI enablement
- 2 FTE part-time from the project team as early adopters (Alpha group)

AI Development Ecosystem with AI Run

Role-based channels extended with custom agents and workflows to accelerate day-to-day tasks



Library of agents and workflows for highly contextualized custom agents and workflows

Custom agents runtime supporting build, test and execute phases

Curated high-quality content with removed noise and gaps as pre-requirement for quality output

Models and data connectors for integrating and extending project toolset

Examples of Agents

Draft Requirements Agent

Scope:

- Draft user stories in Rally
- Standardize stories format
- Enable Dev/QA to get an answer from BA/PO faster by querying documentation/codebase

Solution Highlight:

- Load context from Rally, Confluence, SharePoint
- Get a Teams call transcript and create a summary
- Suggest epics/features/stories list based on the summary
- Create Rally stories for the approved items

Test Case Agent

Scope:

- Augment test case generation process with AI agent, to increase efficiency of test case generation
- Minimize operational overhead of working within multiple tools (Rally, QTest) by enabling chat interface to create TCs

Solution Highlight:

- Integrate assistant with Rally and QTest
- Integrate assistant with Confluence as additional data source
- Tune assistant on expected Test case format and all required fields in Rally / QTest to support traceability between requirements and test cases

Test Case Automation Agent

Scope:

- Support automated testing engineers with generation of code for new automated tests using AI
- Aid engineers with supporting assistant for updating existing test

Solution Highlight:

- Create required Data sets / Class Diagrams for existing test automation framework(s)
- Integrate assistant with GitHub, Rally and QTest
- Tune assistant on coding standards and process for automated tests development
- Provide access to assistant through IDE

Unit Tests Agent

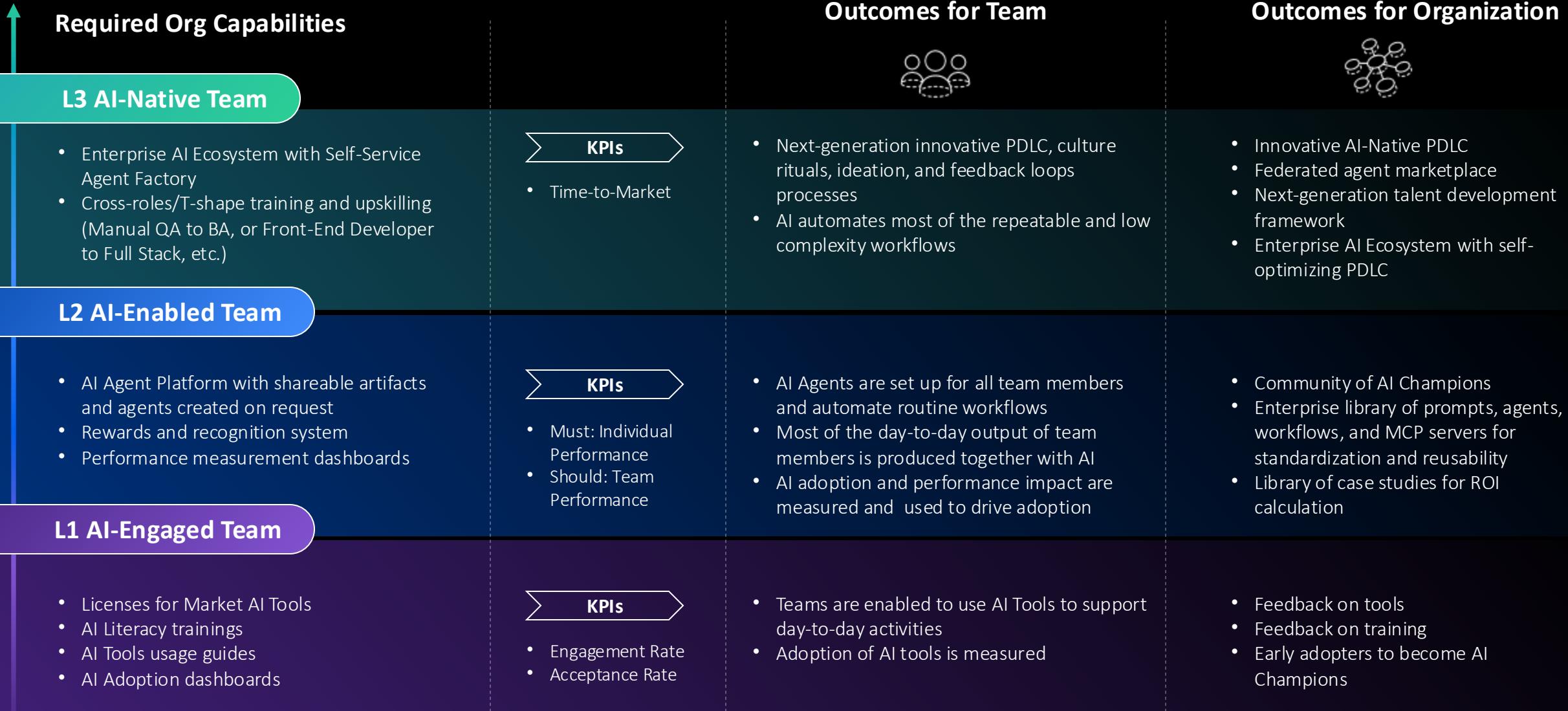
Scope:

- Minimise time required on Increasing Unit Tests Coverage in new and legacy code
- Avoid bugs when changing the code

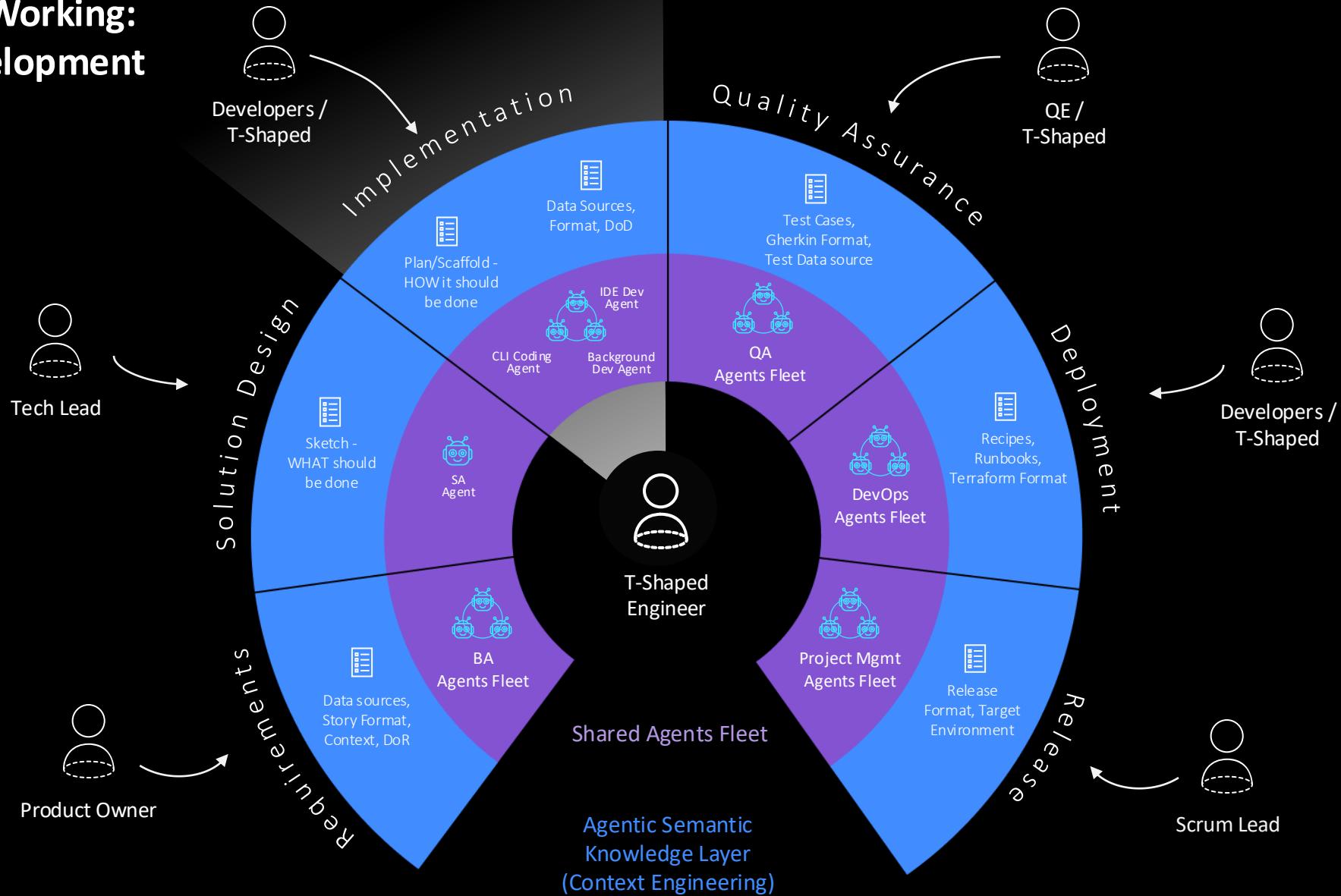
Solution Highlight:

- Adjust the agent for project specific codebase
- Generate Missing Unit Tests
- Offer quality gates that reject generated tests failing to enhance code coverage or adhere to the defined standards of well-written unit tests.
- The tool is integrated into the CI/CD pipeline to become part of the development lifecycle.

Team Level AI Maturity Model



New Ways of Working: AI Native Development



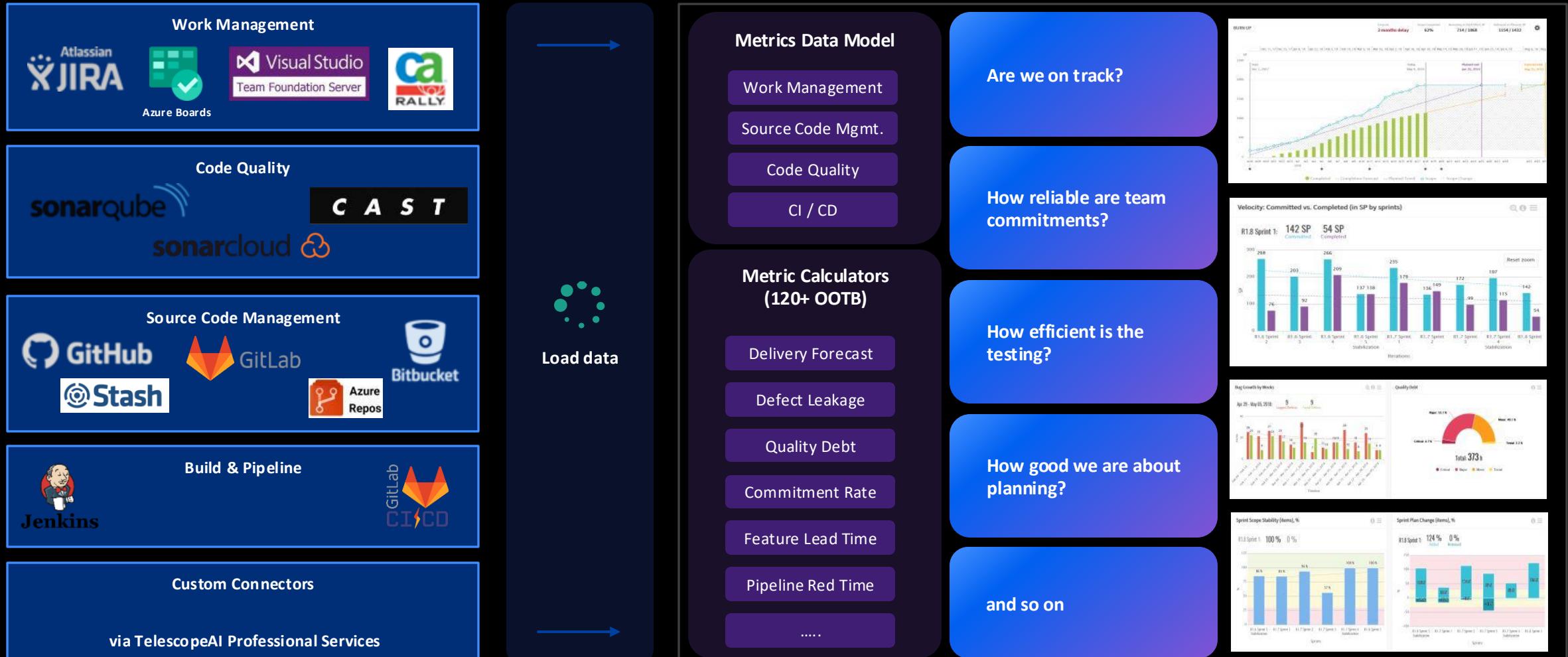
Four-Dimensional AI Adoption Measurements Approach



Monitoring and Reporting Methodologies



Monitoring of key metrics per project and team to provide all necessary information to drive improvements process and measure outcomes



AI Adoption Engagement

Clients' feedback quotes:

"It has become working much faster."

"Helpful in generating new ideas. Good tool for newly onboarded BA – useful to start smoothly on the project."

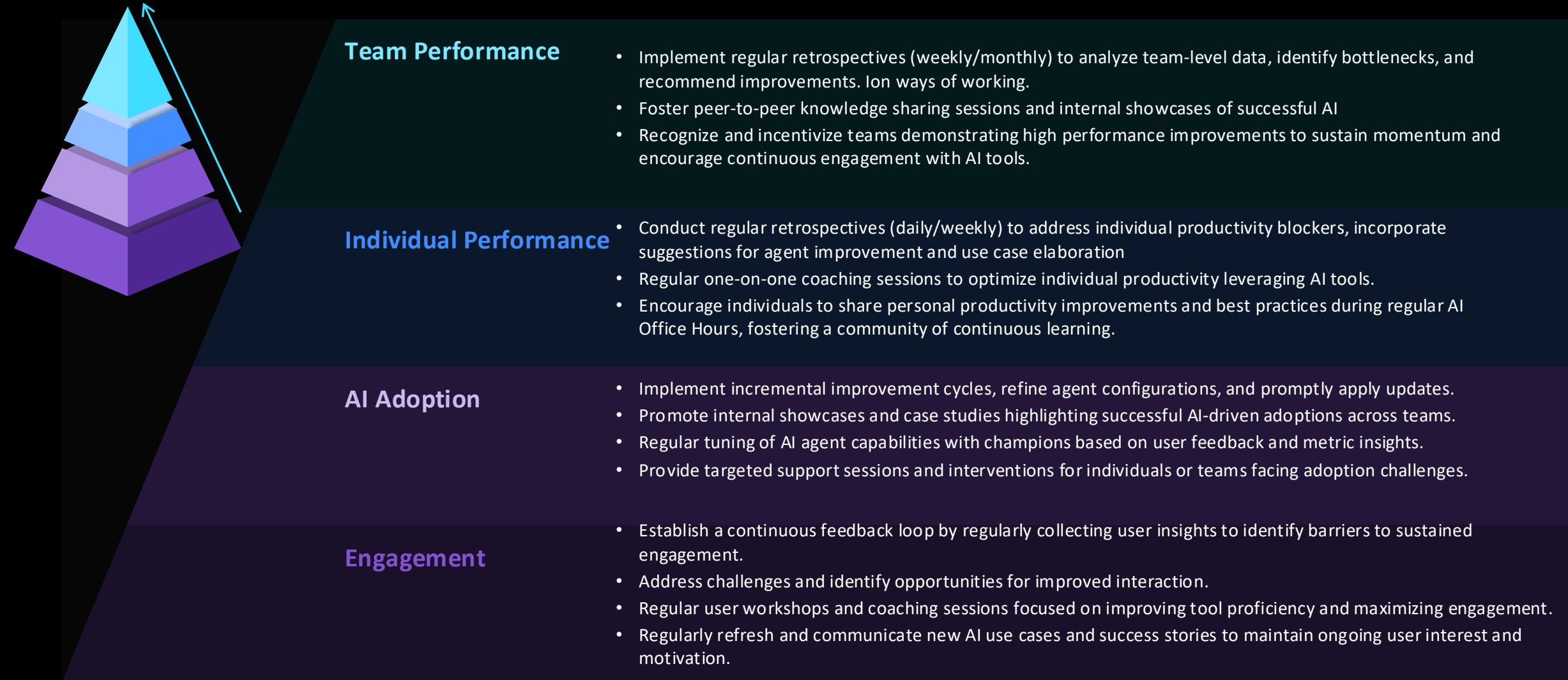
"Great starting point, especially for the onboarders or junior BAs"

"I plan to use it on full strength for the work on next Epic"

"Helps to save time for creation and modification of the User Stories."

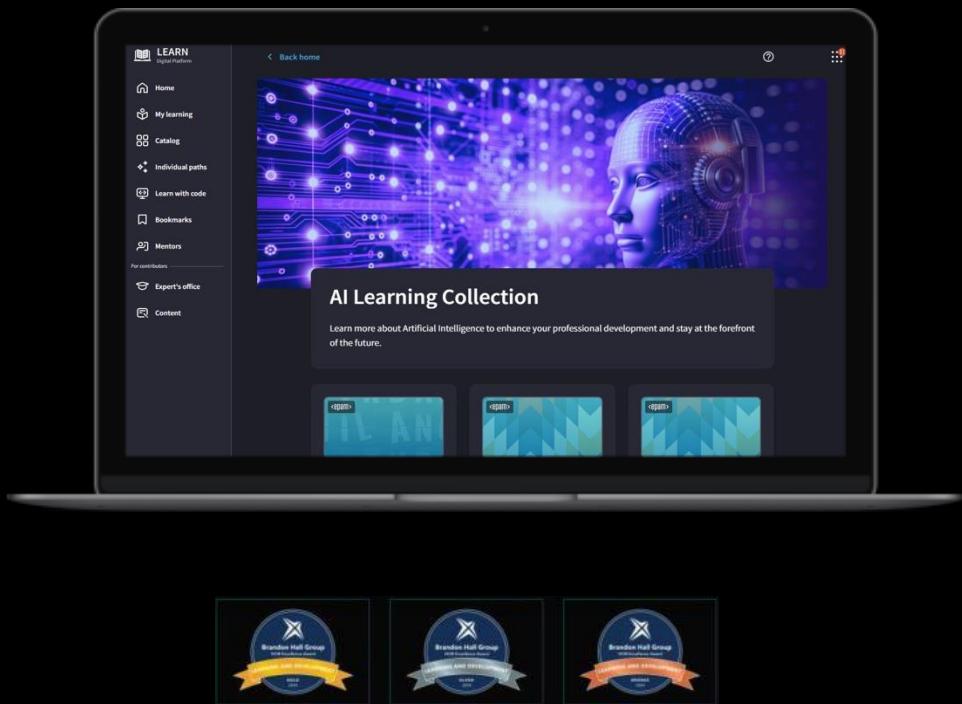


Continuous Improvement Process



AI Education and Engagement

EPAM offers a comprehensive industry-recognized AI Education and engagement program to ensure that every employee continuously has sufficient skills to use GenAI daily while understanding the associated risks and limitations.



Formal Learning

AI Literacy Courses are focused on building foundational skills and understanding of GenAI across all employees:

- Generative AI Fundamentals
- Prompt Engineering Fundamentals

Role-based AI Education is focused on providing every person with the knowledge and skillset required to execute role-specific day-to-day activities using the GenAI toolset to boost productivity:

- AI-Assisted Software Engineering
- AI-Assisted Quality Engineering and Test Automation
- AI-Assisted System Engineering
- AI-Assisted Product Management

Informal Learning & Engagement

Social Learning allows us to engage all employees in the promotion of AI-related knowledge and skills:

- The **AI Ambassador Program** aims to continuously empower active individuals to share AI-related knowledge on a scale from a team to an organization.
- **AI Games** event brings the attention of all employees to the importance of AI-related knowledge and provides a space to learn and experiment.
- **EPAM LEAP** platform provides a single-entry space for all knowledge related to the existing AI toolset, and its influence on SDLC, and provides a safe space to experiment.

Role-Specific AI Educational Offerings

Self-paced E-learning materials focusing on the application of AI skills within specific job functions and roles. All courses are based on EPAM's high-quality internal training materials.

Sample Role-based Courses

<u>AI-Assisted Business Analysis</u>	Audience: Business Analysts, Systems Analysts, Product Owners Objective: Equip business analysts and related professionals to leverage AI-driven solutions throughout the Software Development Life Cycle (SDLC). The course provides a detailed exploration of applying conversational AI to enhance business analysis practices.	<u>AI-Assisted Engineering</u>	Audience: Software Engineers Objective: Equip engineers with knowledge and techniques to work with LLMs and seamlessly integrate them into their development practices. The course explores practical use cases that can accelerate delivery and improve performance.
<u>AI-Assisted Quality Assurance</u>	Audience: Testing Engineers Objective: Equip testing engineers with knowledge and techniques to incorporate LLM usage into existing software testing processes. The course focuses on optimizing everyday testing tasks with conversational AI tools.	<u>AI-Assisted Systems Engineering</u>	Audience: Systems Engineers Objective: Equip systems engineers to select and apply conversational AI techniques across a broad range of systems development processes. The course presents a wide variety of use cases and best practices.
<u>AI-Assisted Test Automation</u>	Audience: Test Automation Engineers Objective: Equip test automation engineers to incorporate LLMs into new and existing test automation frameworks. The course focuses on practical techniques and best practices to empower and improve test automation.	<u>AI-Assisted UX Design</u>	Audience: Designers Objective: Equip UX designers to create intuitive and user-friendly designs leveraging conversational AI. This course covers the application of AI in various stages of UX design, including user research, prototyping, usability testing, and interface design.
<u>AI-Powered Product Management</u>	Audience: Product Managers and related roles Objective: Equip product managers to support, evaluate, and apply generative AI solutions appropriately. The course covers a range of AI concepts and techniques tailored for effective product management.	<u>Prompt Engineering for Managers</u>	Audience: Project Managers, Delivery Managers, Team Leads Objective: Equip managers with delivery-focused AI use cases and practical insights for improving processes, decision-making, and innovation with AI. The course also focuses on ethical and responsible AI implementation.

Hands-on AI Coaching

Successful adoption of Generative AI across employees requires careful and well-thought coaching to prevent and overcome initial hesitation and frustration. Our combined approach includes coach-driven trainings and workshops with regular in-flight hands-on activities.



AI Learning Journey

High-quality learning materials to provide initial knowledge about Generative AI and its applicability for software development related tasks.



AI Workshops

Hands-on workshops driven by coaches to show how Generative AI can be applied to specific software development activities on the project.



AI Related Activities During Regular PI

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Sprint 1		Sprint 2		Sprint 3		Sprint 4		Sprint 5		Sprint 6	
On demand ongoing hands-on Q&A and “pair-programming” sessions											
Weekly AI Coffee Breaks – guilty-free informal space for participants to share experiences with Generative AI and opportunity to learn from each other's successes and failures.											
Bi-weekly AI Retrospectives – more formal session to highlight the productivity improvements, adoption success and failures. Review AI Adoption impact on various aspects of SDLC and possible process improvements.											
Monthly AI Day – a chance to focus whole day on learning new ways Generative AI can be applied to usual tasks, get support from coaches and report findings.											

AI Champions

Drive AI Initiates

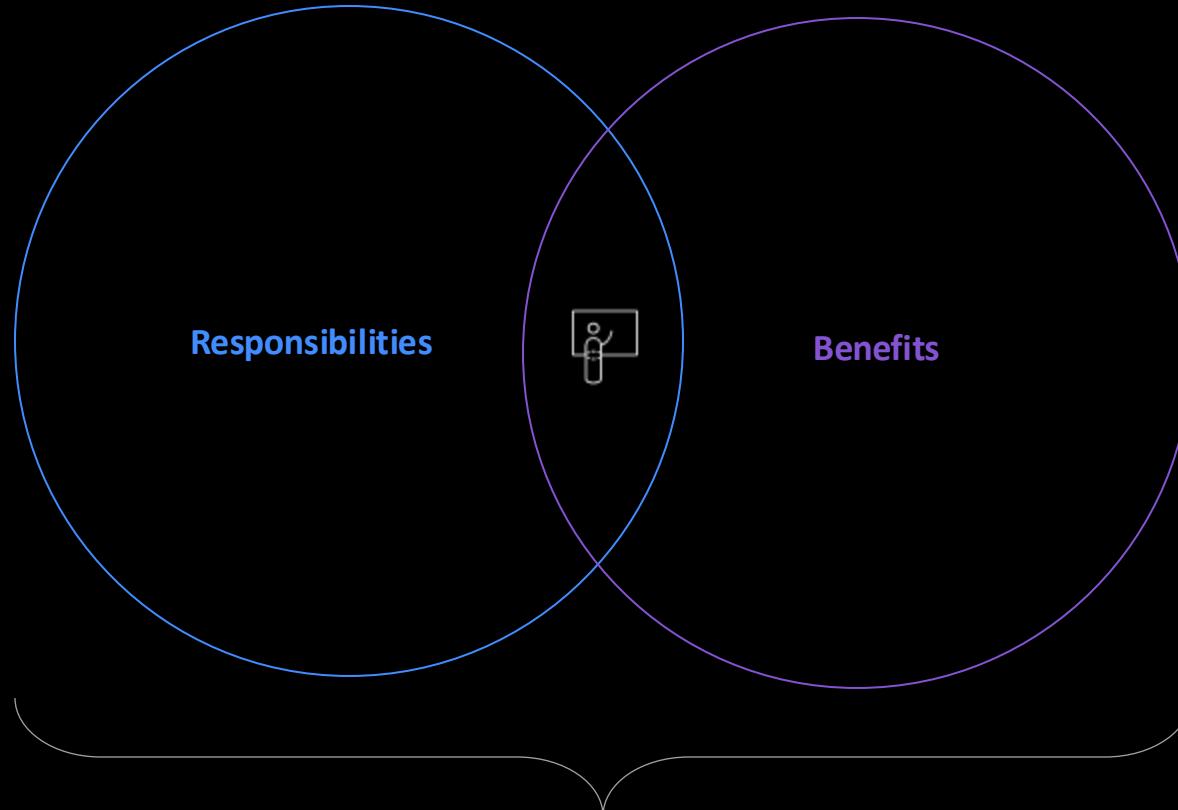
- **Scope:**
 - advocate for best practices
 - promote knowledge sharing
 - ensure AI is naturally embedded into day-to-day activities and operations.

- **Profile:**
 - target already engaged senior engineers and managers
 - hands-on practitioners
 - individuals with motivation to experiment and drive change
 - those ready to educate and influence their peers

- **Time Commitment:**
 - majority of the time should be integrated seamlessly with daily responsibilities
 - allocate several hours a week for AI research and experimentation

Foster AI Culture

- **Scaling:**
 - encouraging cross-team collaboration
 - cultivating innovative thinking
 - promoting continuous learning
 - developing efficient processes
- **Knowledge Hub:**
 - acting as knowledge hubs
 - sharing experiences
 - promoting best practices
- **Professional Development:**
 - upskilling themselves & others
 - contributing to professional growth
 - building & refining AI skills
 - enhancing career prospects

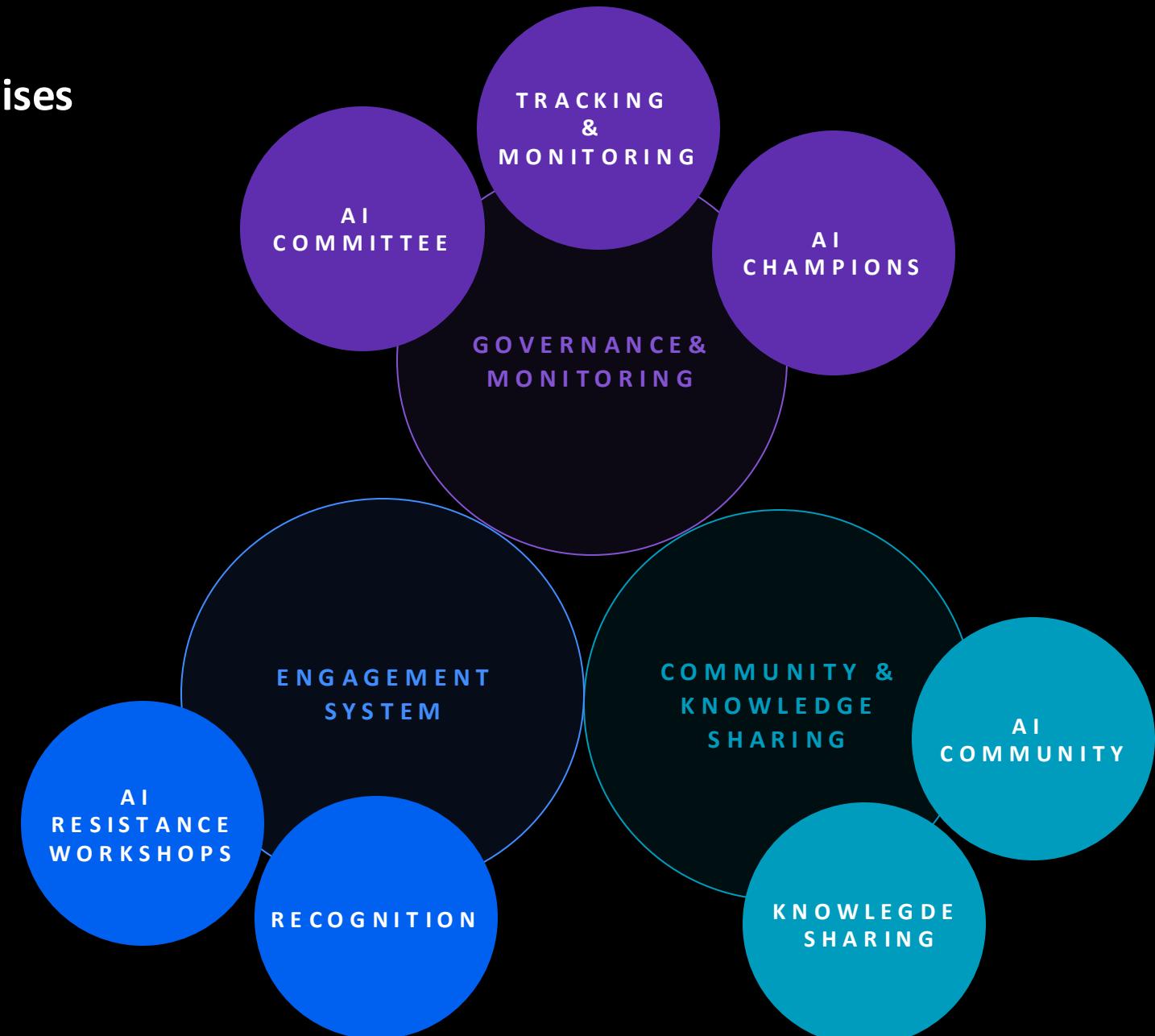


Use Cases, Tips & Tricks, Tools, Processes, Knowledge Base,
Professional Development, Scale

Maximizing AI Adoption in Enterprises Through Effective Organizational Change Management

Governance ensures responsible and ethical AI use within the organization. It sets clear AI policies, guidelines, and standards, defines roles, manages data privacy, and ensures accountability and transparency.

- Ensures accountability and transparency
- Includes reporting and stakeholder meetings
- Ensures AI usage transparency
- Manages risks and legal compliance
- Aligns AI with organizational goals
- Builds trust and ensures AI initiative sustainability



Value We Bring to our Clients

INCREASED PRODUCTIVITY

U S E - C O M M E R C E C O M P A N Y

Implemented end-to-end AI-driven automation for unit test generation, increasing test coverage **from 16% to 46%** in a single run.

Unit Testing Automation AI Run Agents

INCREASED PRODUCTIVITY

M U L T I - B R A N D R E T A I L E R

The Elitea solution enhanced BA and QA productivity, achieving a **62%** boost in user story development and a **53%** increase in test case generation and automation efficiency.

Acceleration with AI Run Agents

COST SAVINGS

E B S C O

The EPAM GenAI consulting team established foundational GenAI capabilities and an impact measurement framework, delivering **\$1.1M ROI** and a **10%** boost in team velocity.

Engineering AI Adoption

INCREASED PRODUCTIVITY

I N T E R N E T O F T H I N G S C O M P A N Y

Observed a **15–35%** faster delivery of automated test cases due to AI-powered accelerations.

Managed Services

COST SAVINGS

I N S U R A N C E P A Y M E N T P R O V I D E R

Implemented agentic workflow on EPAM CodeMie platform to analyze **100** app instances, enabling migration planning and achieving **\$74.5K** savings within **3-5** months.

Projects Delivery with AI Run Agents

WORKLOAD REDUCTION

H E A L T H T E C H N O L O G Y C O M P A N Y

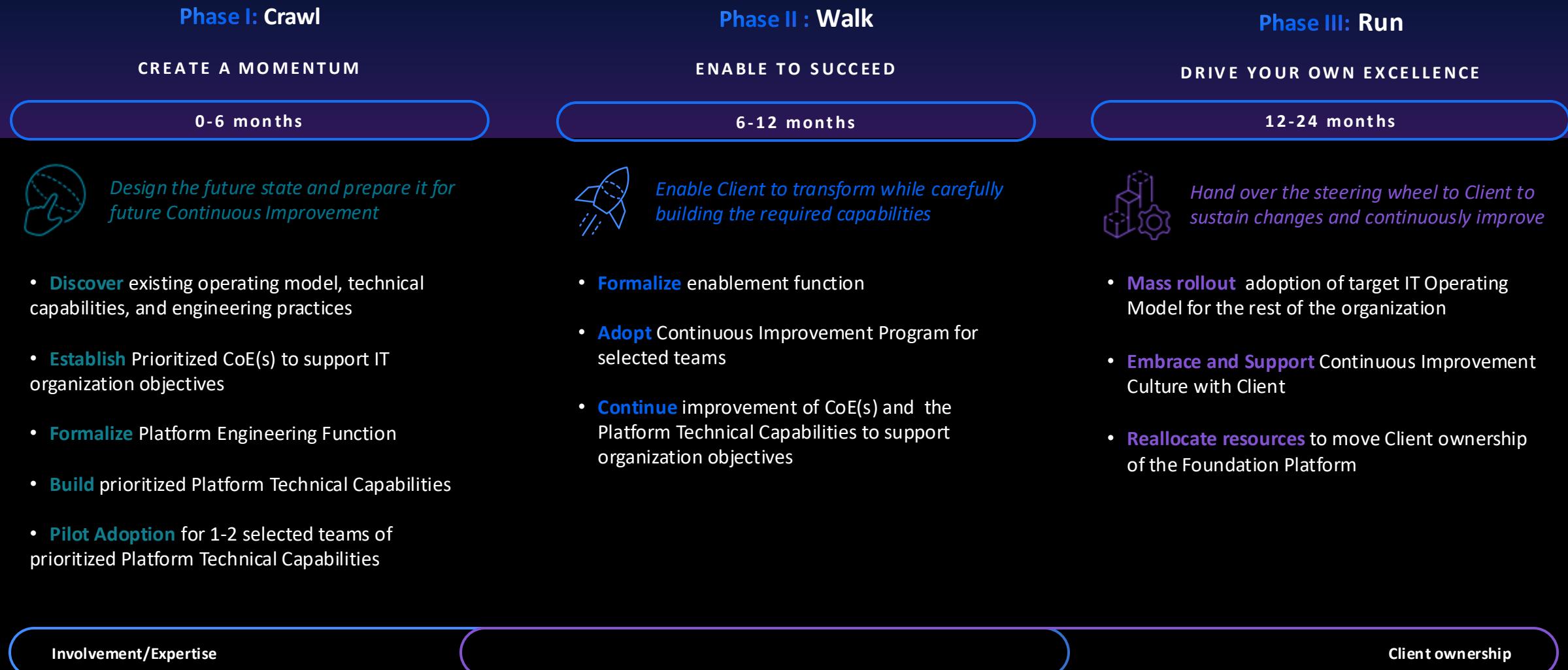
Enabled GenAI-driven modernization of legacy platforms, including code exploration, reverse engineering, migrations, and enhanced unit and automated test coverage.

Modernization with AI Run Agents

AI Adoption Timeline

- Typical AI Adoption Timeline
- Phased AI Adoption Process

Typical AI Adoption Timeline



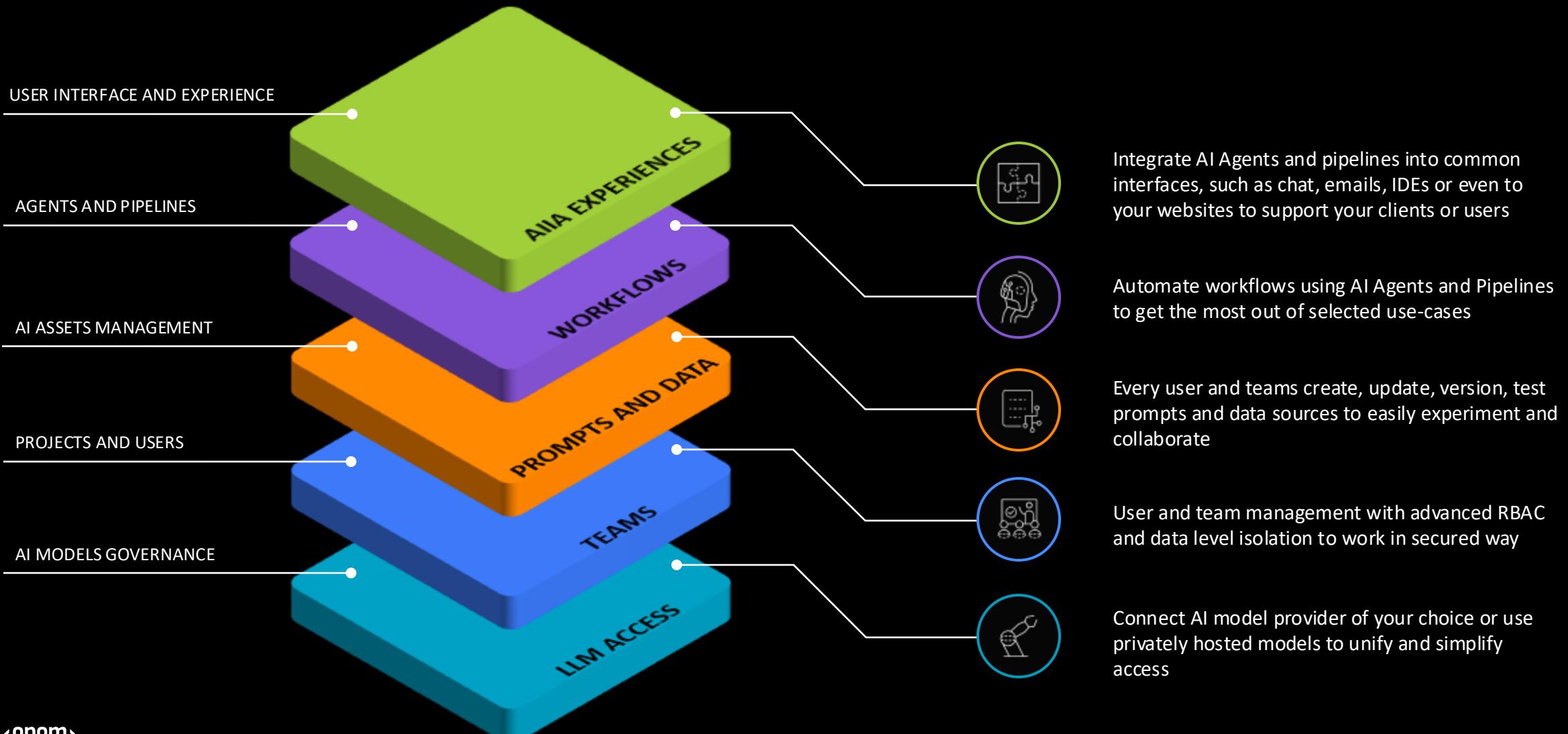
Getting Ready for Crawl Phase: Pilot Approach



03

EPAM's Expertise & Experience in End-to-End SDLC Capabilities

AI Run - Collaboration Platform for Teams



Prompts and Data Sources

The screenshot displays the EPAM AI DIAL platform interface. At the top, there's a search bar with the placeholder "Let's find something amazing!". Below it, a navigation bar includes "Prompts", "Latest", "My Liked", "Trending", and a user profile for "Ihar Bylitski". The main area shows two prompt cards: "Test Prompt for Demo #1" and "EB - Code_Beautifier". "Test Prompt for Demo #1" is described as "Test Prompt for Demo purposes" and has tags "qa", "chat", "tr", "bard", "goal", "demo", "finance", "ecommerce", "pe", "api", "ecommerce", and "test automation". "EB - Code_Beautifier" is described as "The purpose of this prompt is to reformat and beautify the provided code." Below these cards, a "CREATE" section for "My libraries / API TESTS FOR GITHUB" is shown, featuring a "Run" tab selected, a dropdown for "Version" set to "latest", and buttons for "Publish", "Save", "Discard", and "Save As Version". A modal window titled "counter" contains notes about testing API endpoints and creating test cases. On the right, a "MESSAGES" panel shows a conversation with a user asking to "create tests for GitHub Actions billing for an organization". The AI response provides three test cases, detailing preconditions and steps. The interface also includes a "VARIABLES" section with "Model gpt-4" and "Shared OpenAI", a "Temperature" slider at 0.7, and tabs for "Chat" and "Completion". A "Tags" section at the top right lists various categories like qa, chat, tr, bard, goal, demo, finance, ecommerce, pe, api, ecommerce, test automation, and ba.

Space designed to create prompts, data sources, collections and organize them.

Create, Modify, and Save Prompts: Users can now create, modify, and save their prompts in a dedicated space, streamlining the prompt management process.

Import Prompts: Seamlessly import prompts from EPAM AI DIAL, the previous version of EliteA™, ensuring continuity and ease of transition.

Version Control: Maintain various versions of prompts in one place, with the capability to effortlessly switch between them.

Execution Options: Execute prompts using Chat or Completion options, allowing users to gather and save the output (results) efficiently.

Publish and Share Prompts: Publish your prompts and share them with your project and network, fostering collaboration and knowledge sharing.

Engage with Published Prompts: Use published prompts and collections, with options to like them and mark them as favorites, enhancing community engagement.

Organize with Collections and Tags: Group your prompts into Collections and categorize them with Tags for better organization and accessibility.

Advanced Search Functionality: Enhanced search functionality to quickly find your prompts or public prompts and collections with various parameters.

Data Source Configuration: Set up various data sources and configure them to enhance your results and the possibilities in using Generative AI.

Embedding Creation: Users can create Embeddings, adding a layer of sophistication to prompt management.

Similarity Search and Deduplication: Perform similarity searches and deduplicate content, ensuring the uniqueness and relevance of prompts.

Conversations

The screenshot displays the AI/Run - EliteA™ Chat application interface. On the left, a sidebar lists various conversations with their names and participant counts. The main area shows two active conversations:

- Conversation 1:** A message from "QA Agent" stating: "The manual test case for JIRA ticket EPMTIGR-5638 has been created and recorded in JIRA under the ETSTCC project. The test case ID is ETSTCC-10437. The test case steps are designed to verify the integration and functionality of the 'Overwrite Data' tool within the Artifact toolkit." This message was sent 12 days ago.
- Conversation 2:** A message from "Alexander Bychinsky" saying: "ok, proceed with automation" 12 days ago.

On the right, there is a "PARTICIPANTS" section with two tabs: "Agents" and "Users". The "Agents" tab lists "UI Developer", "Backend Developer", "QA Agent", and "Business Analyst". The "Users" tab lists "Artem Rozumenko" and "Ihar Bylitski".

Below these conversations, there is a "Playback" feature window titled "[Playback] Demo SDLC". It shows a message from "Ihar Bylitski": "Please proceed with implementation" 22 days ago. Another message from "Backend Developer" follows: "The 'Overwrite Data' tool has been successfully integrated into the Artifact toolkit. Here's a summary of the changes made:

- Branch: feature/add-overwrite-data-tool
- Class Updated: ArtifactSelectedTools in the models/pd/tool_settings.py file, with the addition of overwrite_data = 'overwriteData'.
- Pull Request: Successfully created PR number 39 for review.

You can review the PR to ensure it meets the project's requirements and standards before merging. This update will allow the Artifact toolkit to utilize the 'Overwrite Data' functionality, enhancing its capabilities." This message was sent 22 days ago.

At the bottom of the playback window, there is a message from "Ihar Bylitski": "Now is your turn to make changes" 22 days ago, followed by a text input field: "Type your message".

AI/Run - EliteA™ Chat is an ultimate feature, allowing you to combine all EliteA™ features in one place and achieve the best output and results. Conversations support the following functionality:

Public and Private Conversations: Share your conversation with other users from your project, involve them in the same conversation, or keep it private and visible only to you.

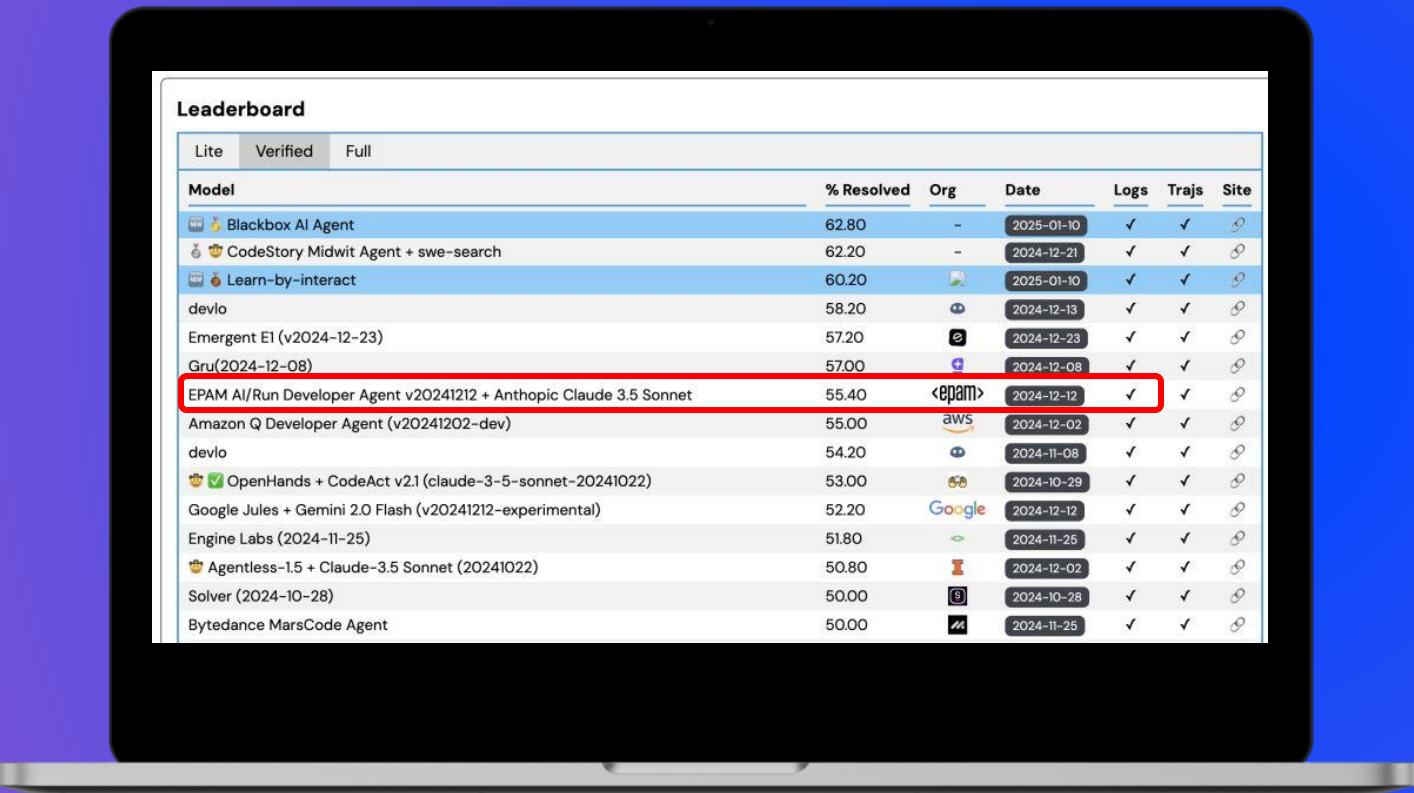
Participants: Add various participants to the conversation, including other users in public conversations, prompts, data sources, agents, and language models, making them part of the conversation.

Interactions: Interact with added participants, copy generated responses, and more.

Managing Conversations: Save conversations, pin the most important ones at the top of the screen, make private conversations public, delete conversations, clean the content of the conversation, and export the context of the conversation.

Playback: During playback, you can move backward and forward through the playback process or stop the conversation by simulating the current conversation without any engagement with models.

EPAM AI/Run Agent Ranked in the Top 7 on SWE-Bench Verified



Key Achievement

- EPAM AI/Run Developer Agent scored 55.4% on SWE-Bench Utilizing Anthropic Claude 3.5 Sonnet
- Secured a top 7 position in a highly competitive field
- Outperforming major tech giants like Amazon and Google
- Performance at State-of-the-Art (SOTA) level
- Demonstrates EPAM's competitive edge in AI Agents development

EPAM AI/Run CodeMie:

- 1 alternatives for issue fix
- 1 SWE Bench run costs ~\$600-700

CodeStory/devlo/Emergent:

- 3 alternatives for issue fix (they try to choose the best option with higher scoring)
- 3 SWE Bench run costs ~3x higher than EPAM AI/Run (due to 3 alternatives and additional comparison)

Gru/Blackbox AI Agent:

- 1 alternatives for issue fix with own tooling
- 1 SWE Bench run costs ~2-3x higher than EPAM AI/Run

AI/Run Success Stories

EBSCO

Large Scale AI Adoption

Implementing the AI/Run™ framework to scale AI code assistant adoption across 90+ development teams.

10% teams' velocity improvement

X2 accepted pull requests

50 mins saved daily

LEADING FINANCIAL & ANALYTICS COMPANY

Scaled Agentic SDLC

GenAI Evaluation and Adoption Program across 80 engineer teams and 400+ engineers leveraging AI code assistants and custom agents.

↓ 30% dev cycle time

\$1.7M ROI in 1 year

MEDICAL TECH & HEALTHCARE SOLUTIONS PROVIDER

Agents Modernize Legacy

Enabled GenAI-driven modernization of legacy platform, including code exploration, reverse engineering, migrations, and enhanced unit and automated test coverage.

↓ 60% migration time

4X migration effort optimization

↓ 80% planning effort

100% dependency coverage

LEADING DUTCH MAIL AND ECOMMERCE COMPANY

AI Native Delivery Transformation

Scaled AI adoption program across 10+ teams: integrating 20+ AI-powered agents to automate key development tasks and expedite time-to-value.

30-50% faster release cycles

30-50% less defects

60%-80% time optimization on routine tasks

Lessons Learned from Large-Scale Client Adoptions

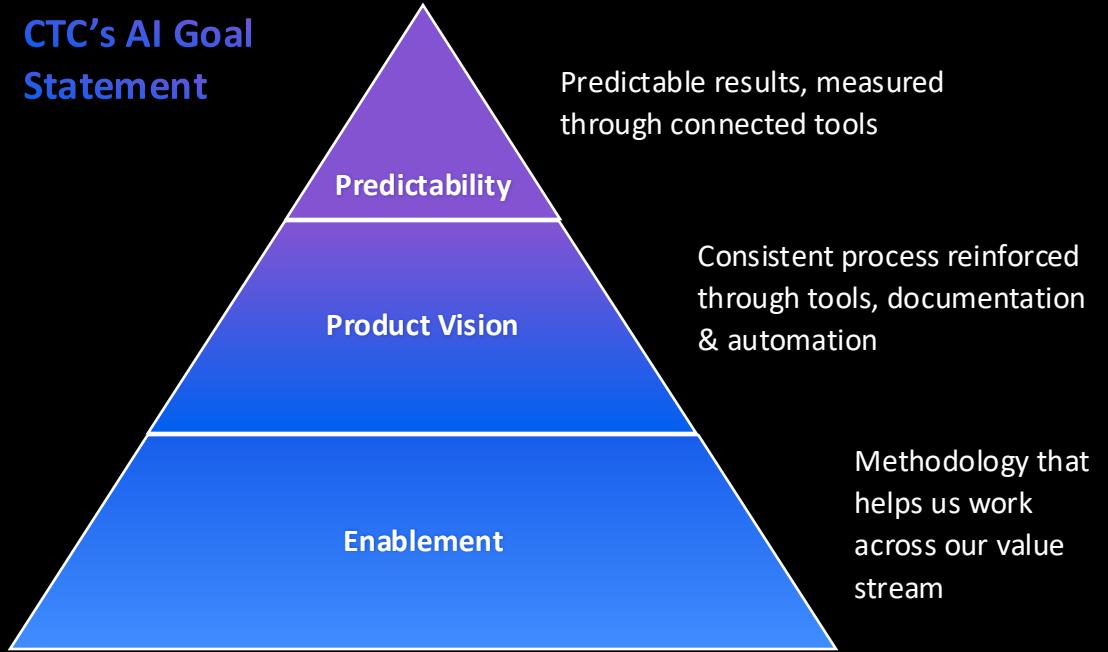
AI Adoption in CTC

From initial failure to organization-wide AI adoption with measurable impact

The CTC Gen AI Adoption – The Ask

“CTC’s goal was to intentionally introduce AI into the Software Development Lifecycle for Digital to drive Stability, Quality, Speed, and Cost Savings while at the same time maniacally measuring impact to People, Process, Technology, and managing disruption to Value Driver initiatives!”.

In January 2023, CTC reached out to gain EPAM’s assistance with AI Adoption. CTC was not ready to commit internal people as AI Champions or setup baseline metrics. They wanted to implement the AI tools and just try them out.



The CTC Gen AI Adoption – The PoC

PoC Phase

Nov 2023 –May 2024

- 4 Use Cases selected
 - Generation of user stories based on requirements
 - Generation of test cases from user stories
 - Suggestions on BDD implementation
 - Deduplication of tests cases
- AI Tools - EliteA™ and AI Jeannie
- Initiated Jump Start for 4 Teams
- Drafted AI Center of Excellence
- No Baseline, No AI Champions
- Limited Training or Education on AI and AI Tools

The PoC was not effective or scalable due to:

UNSTRUCTURED ADOPTION PROCESS

Lack of framework for integrating AI tools into existing workflows led to lack of visibility, decreased adoption rates and missed opportunities

LIMITED ENGAGEMENT IN AI ADOPTION

Low participation rates in AI-related activities and training sessions hindered momentum and adoption

UNDEFINED BASELINE

No standardized, measurable metrics in place to effectively track and report productivity improvements

LACK OF AI KNOWLEDGE SHARING

Overlapping AI tools selected for implementation, some of which lacked user-friendly design

The CTC Gen AI Adoption – Wave 1 Rollout

The PoC showed opportunities for improving the AI tools for CTC and its team members.

Prep for Wave 1 (August 2024)

1. Expanded the EliteA™ tool capabilities
2. Removed the AI Jeannie tool
3. Improved the Change Plan to include more Communication, Training, and Hands-On Workshops
4. Baseline every metric that would be tracked
5. Revised 5 Use Cases:
 1. User Story Creation Agent
 2. User Story Review Agent
 3. Creating Manual Test Cases
 4. Deduplication of Tests
 5. Generate Automation BDD Steps

Enablement Phases

Pilot – September 2024

- Initial scope of 4 Teams
- Established Performance Measurement Metrics
- Use Case: User Story Creation Agent

Wave 1 Rollout – October 2024 – December 2024

- Scaled to 100+ Teams
- On Boarded EliteA™ Champions (Chapter Managers)
- Evolved AI Center of Excellence
- Trained < 800 Team Members on AI, EliteA™, and 4 Use Cases

Key Results

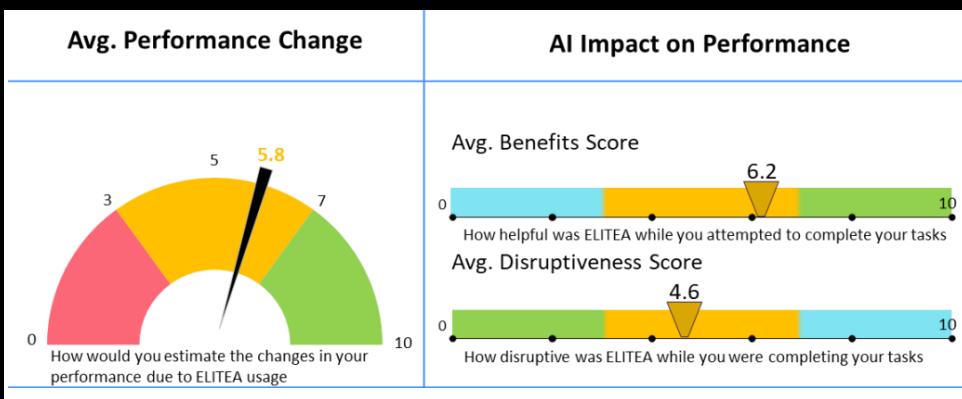
- ~30% of overall productivity improvement
- 62% user story development productivity improvement
- +53% test case generation and automation productivity improvement
- Gap in AI knowledge and understanding

The CTC Gen AI Adoption – Current State

As of January 2025, CTC completed the initial rollout of AI Agents and Tools within their Product Engineering organization.

2024 AI Adoption Numbers:

- ✓ 17 EPAM Experts
- ✓ 1 CTC Manager
- ✓ 25 Key CTC Stakeholders
- ✓ 8 EliteA™ Champions (Chapter Managers)
- ✓ 100+ Teams
- ✓ 6 Portfolios
- ✓ 100+ dedicated projects
- ✓ 700+ configured entities
- ✓ 50+ pages of EliteA™ guidance created in CTC's Knowledge Portal



Beyond January 2025

CTC is continuing their AI Adoption, moving beyond their Product Engineering Team to other areas, with the intention to rollout across entire organization. The goal is to improve and optimize software development lifecycle based on most impactful use cases where automation and adoption of AI is meaningful.

Planned efforts for 2025:

- Build additional Prompts and Agents (QA, Developer, BA)
- Hand ownership of AI Adoption back to CTC including management of EliteA™, Agents, Training, and Knowledge Portal.

AI Adoption in EBSCO

From initial failure to organization-wide AI adoption with measurable impact

The EBSCO Gen AI Adoption – The Ask

“EBSCO was looking to validate and measure the positive impact of Generative AI on software development performance and build foundational capabilities to scale across the Enterprise.”

In September 2023, EBSCO initially reached out to gain EPAM’s assistance with AI Adoption. EBSCO wanted to get started immediately with a small experiment.

The experiment included:

- GitHub CoPilot with 2 Teams (not structured)
- 1 consultant from EPAM to run AI Adoption
- No AI Champions from EBSCO
- No AI Use Cases were selected and prioritized which limited ability to tailor training for the team
- No Metrics defined

The experiment was not effective or scalable due to:

UNSTRUCTURED ADOPTION PROCESS

Lack of framework for integrating AI tools into existing workflows led to lack of visibility, decreased adoption rates and missed opportunities

LIMITED ENGAGEMENT IN AI ADOPTION

Low participation rates in AI-related activities and training sessions hindered momentum and adoption

UNDEFINED BASELINE

No standardized, measurable metrics in place to effectively track and report productivity improvements

LACK OF AI KNOWLEDGE SHARING

Lack of mechanism for disseminating knowledge about use cases and practices that substantially boost productivity

The EBSCO Gen AI Adoption – The Reset

In November 2023, EPAM and EBSCO started the Gen AI Adoption Program to validate and measure the potential impact of GenAI technology on software development performance.

Program scope included:

1. Key Use Cases to focus on
2. Gathering Baseline metrics and defining what success looks like
3. Comprehensive AI Adoption plan implemented
4. Development of an AI Center of Excellence
5. More robust Change Plan which included Roadmap and Learning Journey

Enablement Phases

PoC Phase – Nov 2023

- Initial scope of 10 Teams
- Established Performance Measurement Metrics
- Identified 6 AI Champions to enable EBSCO adoptions of GenAI

Wave 1 Rollout – April 2024

- Scaled to 21 Teams
- Established AI Adoption knowledge management space
- Onboarded AI Champions

Wave 2 Rollout – July 2024

- Scaled to 39 Teams
- Transferred AI Office Hours/Workshops to EBSCO
- Identified 4 more AI Champions
- Automated Metrics Calculation
- Established AI Adoption Dashboard
- Established Recognition Board

Wave 3 Rollout – October 2024

- Scaled to another 20 Teams
- Transferred AI Adoption Dashboard to EBSCO
- Transferred AI Adoption Program & Metrics to EBSCO
- Established AI Champions governance

The EBSCO Gen AI Adoption – The PoC

PoC Key Results

PoC Details

- Drafted AI Center of Excellence structure
- Identified 8 AI Champions from EBSCO
- Added EPAM Roles: AI Coach, SMEs for Development and Testing
- Trained all members of PoC on AI
 - Use Cases and Prompt Library
 - Trained EBSCO AI SMEs on AI Learning Journey
- Identified PoC Use Cases
 - Unit Testing
 - New Code
 - Refactoring Explanations
 - Data Preparation
 - Documentation
 - Checklist

- 9-14% Velocity Boost
- 30% decrease in code review lead time
- 10% boost of code acceptance rate
- ROI: ~130K net

ROI simulator projected that expanding across the enterprise would result in an ROI of approximately \$1M.

The EBSCO Gen AI Adoption – The Rollout

Over the next 9 months EPAM GenAI Consulting Team helped EBSCO build foundational GenAI capabilities, set up an impact measurement framework, and drive transformation across the enterprise.

Rollout Included:

- Scaled AI Adoption from 10 to 90+ teams including 17 ARTs, 500+ engineers.
- Built an AI Adoption Dashboards with automated metrics and real-time AI impact measurement.
- Enhanced the Change Plan with hands-on coaching and shadow sessions for AI Champions, accelerating readiness and in-house expertise.
- Established Center of Excellence for AI Champions, Contributors, and broader community participants
- Launched an AI Space as a Knowledge base, AI Learning Hub, Use Case Library, Video Trainings and AI Podcasts.
- Introduced a Recognition Program, celebrating achievements and sustaining engagement.
- Established Governance & Transferred Key Assets and Knowledge to EBSCO, ensuring long-term success.

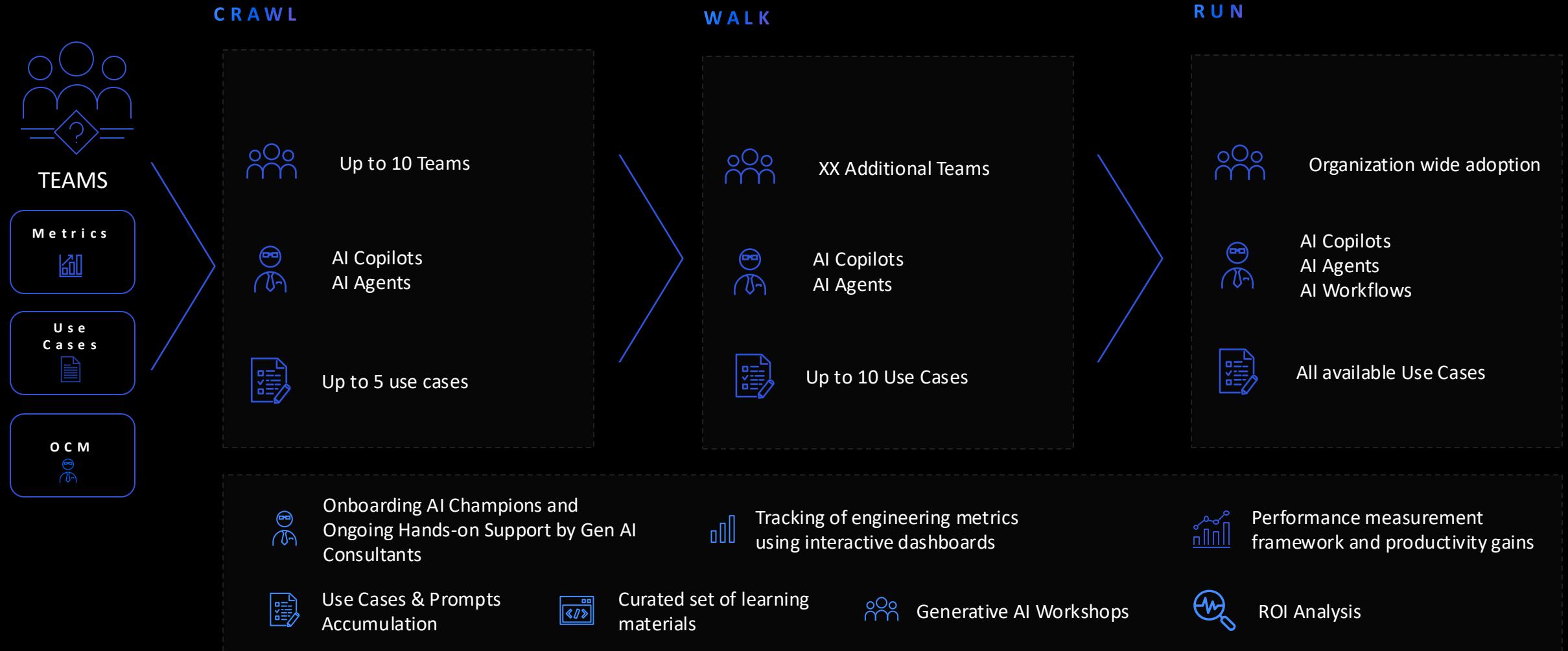
AI Enablement Outcomes

Velocity increase	10%
Actual ROI	\$1.1M
Team Budget Reduced	5%
AI Contribution to Codebase	7-9%
Team Members Trained	500+

Thank you for this great work. The challenge was significant, and it is impressive to see how well the challenge was met. And on a personal note, It's impressive to see how knowledgeable and experienced there are.

EBSCO, SVP of Engineering

Next Steps



Thank you

AI/Run Team

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