FORRESTER®

PREDICTIONS 2025

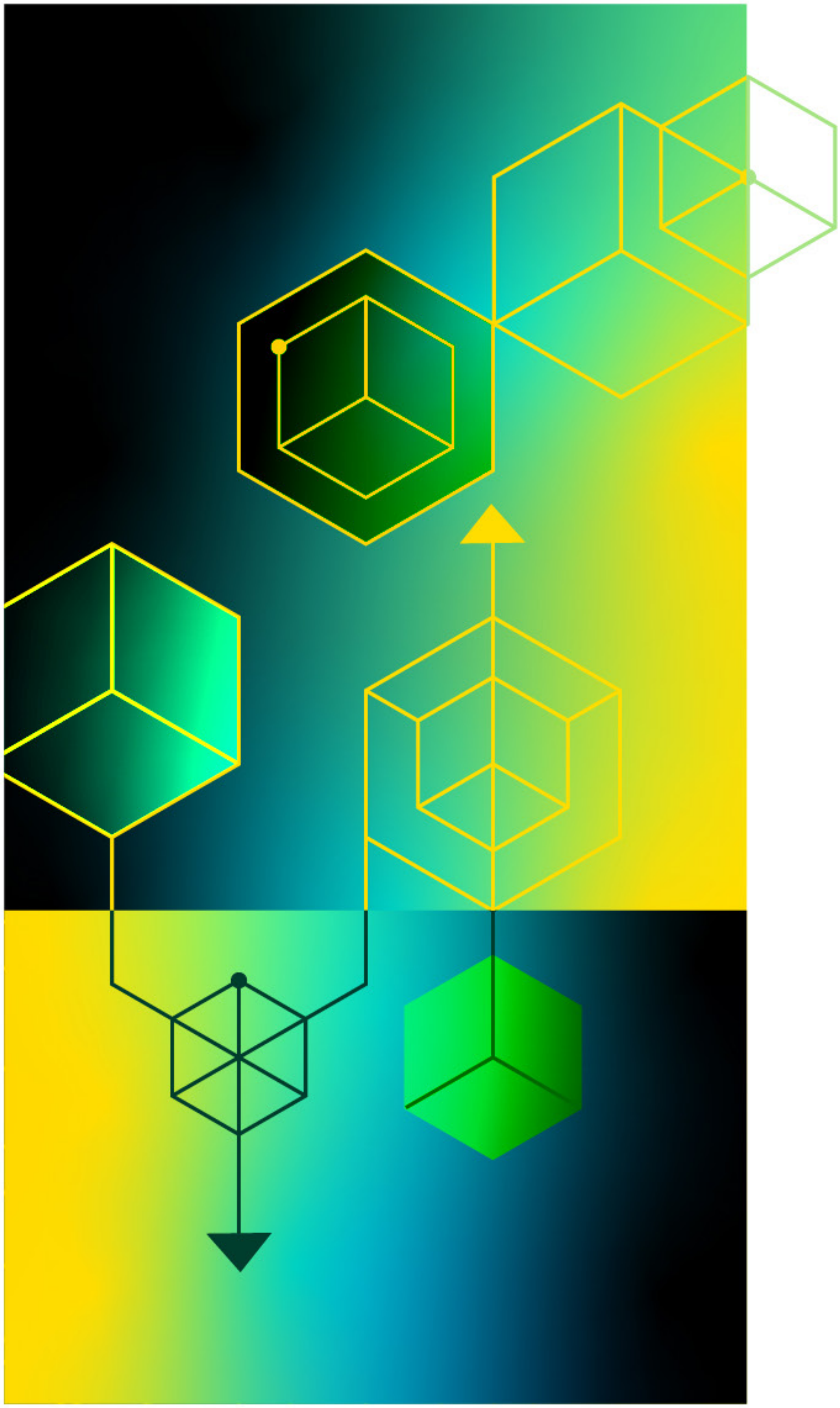
Technology & Security

Hard-Won Insights Drive Growth

Technology and security teams experimented boldly in 2024 and learned some valuable lessons. There were AI pilots running in all corners of the enterprise, while swirling market trends sent some long-held strategies askew throughout the year. In 2025, some experimentation will continue, but technology and security leaders will focus on putting lessons learned into practice.

The intense pressure to show ROI after a period of pilots and experimentation will drive some leaders to rush deployments and make premature decisions that could cost them dearly. But in other areas, experimenting with new and emerging technology will show business benefits in the shorter term, winning support for the future.

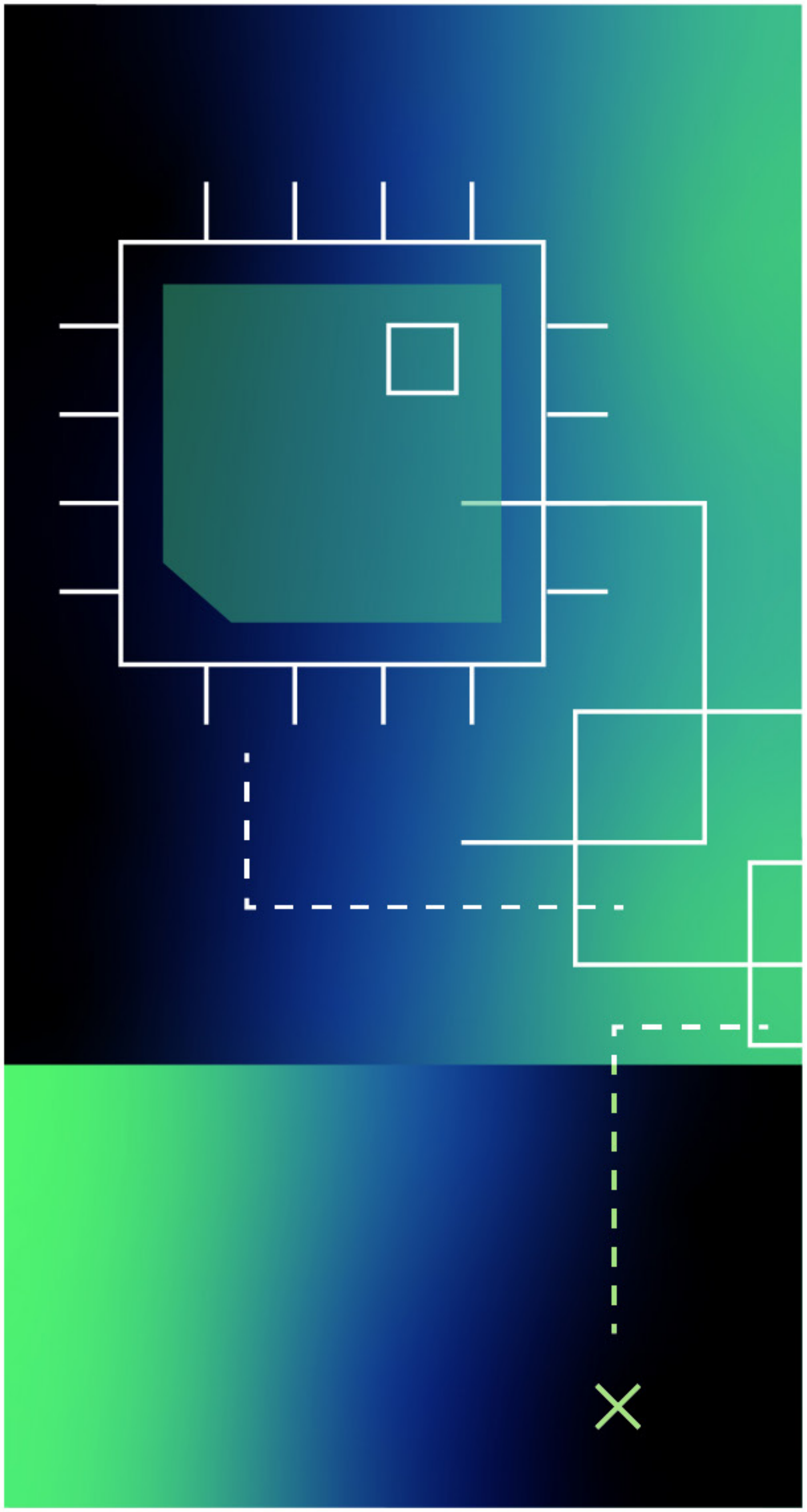
Our message to technology and security leaders for 2025 is to continue to be bold in planning your roadmaps but also take into account those prior lessons learned when making decisions and plans. Avoid unnecessary distractions by prioritizing the technologies and use cases that deliver true business value internally and externally.



PREDICTION

Tech execs trying to reduce tech debt will triple the adoption of AIOps.

As IT landscapes continue to get ever more complex, more than 50% of technology decision-makers will see their technical debt rise to a moderate or high level of severity as they enter 2025. By 2026, this number will increase to 75%, driven by the acceleration of solutions to support AI. To stem the tsunami of tech debt, tech leaders will look to AIOps platforms that can deliver contextually aware data to enhance human judgment, automatically remediate incidents, and improve business outcomes. While AIOps is the future, challenges in delivering successful solutions mirror the challenges of other enterprise AI deployments. Specifically, tech execs who move to AIOps will need to institute the proper culture, data, architecture, and security practices to deliver the desired benefits.



FORRESTER

PREDICTION

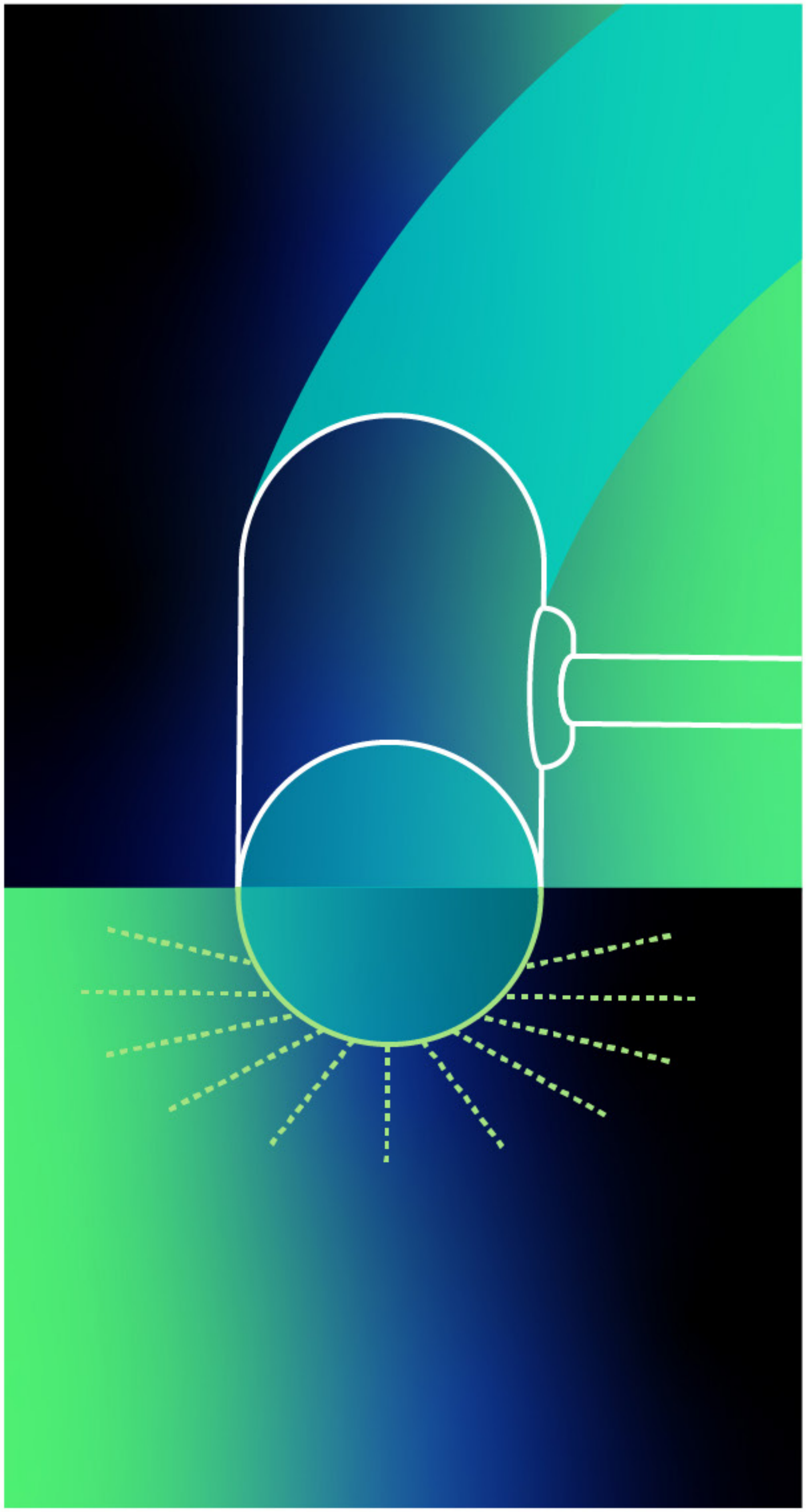
Most enterprises fixated on AI ROI will scale back prematurely.

Enterprises are achieving improved customer experience, employee productivity, and even new revenue streams with AI use. But an AI reset is underway. Obvious use cases that enterprises experimented with last year are now table stakes and embedded in business software. Leaders are realizing that ROI from investments will take longer than they anticipated and are shifting toward pragmatically delivering ROI over time. In Forrester's Q2 AI Pulse Survey, 2024, 49% of US generative AI decision-makers said their organization expects ROI on AI investments within one to three years and 44% said within three to five years. Impatience with AI ROI could prompt enterprises to prematurely scale back investments, which would be a long-term disadvantage. Instead, AI leaders must establish a solid strategy aligned to their business model and aspirations. Pick differentiating use cases leveraging company-specific data and expertise, and create a roadmap that balances short-term and longer-term business ROI to create a flywheel for reinvesting early successes into future AI projects.

PREDICTION

Thirty percent of teams will accelerate the SDLC with TuringBots.

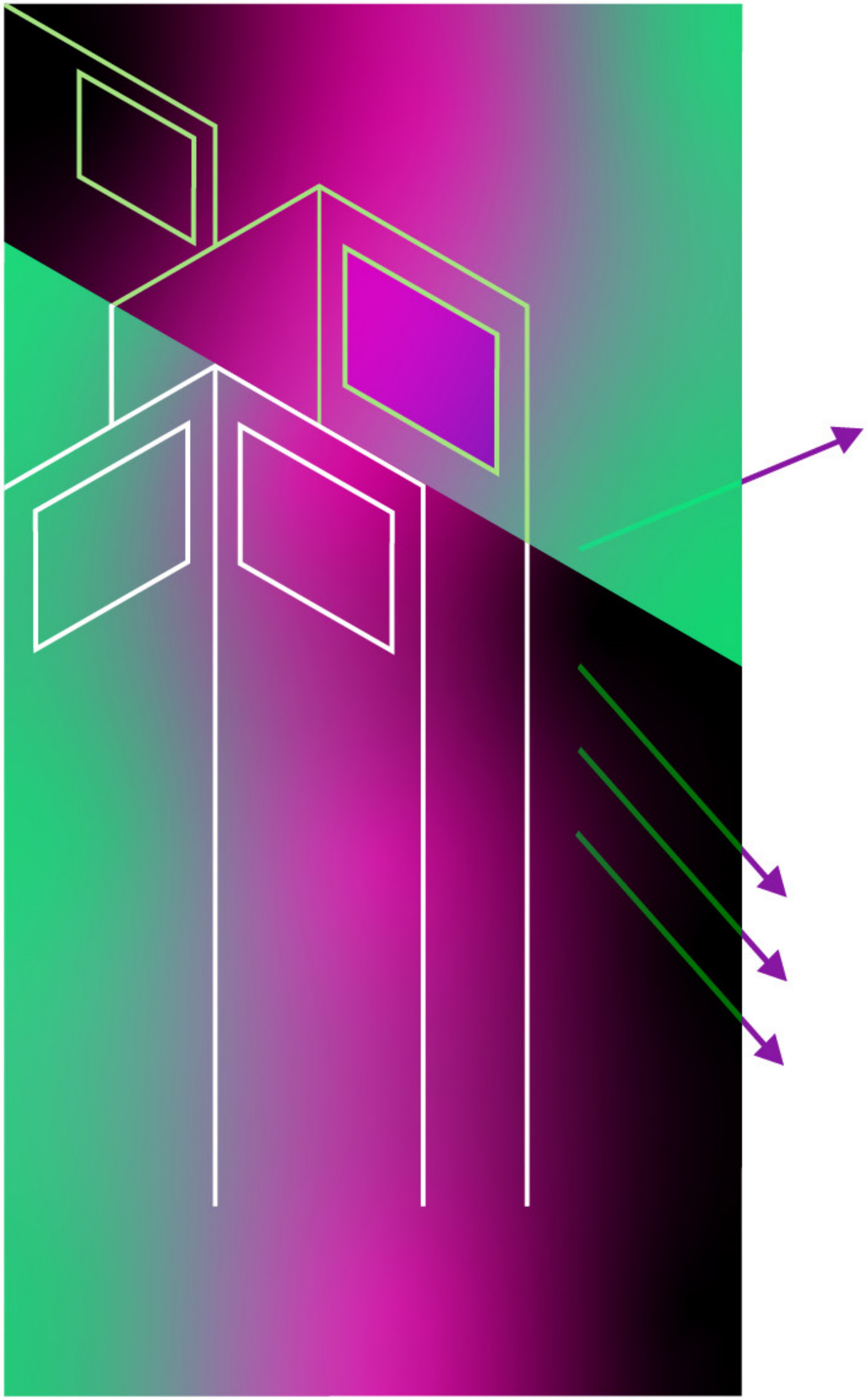
TuringBots are AI- and generative AI-infused development tools that automate and generate artifacts as well as assist development teams. In Forrester's Developer Survey, 2024, 24% of executive-level respondents said that in the next 12 months, they would leverage AI and genAI across the entire software development lifecycle. Couple this data point with: 1) the past two years of focused adoption of coder and tester TuringBots; 2) the fast advances of AI with multimodal large language models like Google Gemini; 3) the expansion of foundation model context windows to millions of tokens; and 4) the arrival of agentic AI. Altogether, these expand opportunities well beyond code and test generation. Examples outside of code and test are generating product requirement documents, analyzing and productizing product feedback at scale through text and video analysis, templatizing requirement descriptions, and automating infrastructure playbooks.



PREDICTION

The EU will fine a genAI provider for the first time under the EU AI Act.

EU enforcement of the EU AI Act requirements on prohibited use cases will kick off as private action only in February 2025 and expand to general-purpose AI (GPAI) models (e.g., generative AI) in June 2025. With the EU AI Office and data protection authorities joining forces to oversee GPAI providers, it won't take long for the action to begin! In 2025, a GPAI model's provider will receive the first fine for violating the EU AI Act. Users, take note: While the Act aims GPAI requirements — such as disclosing training sources and sharing results of model evaluations including adversarial testing — directly at GPAI providers, compliance obligations are linked across AI actors. Organizations that are not prepared will inevitably face a third-party risk nightmare. As companies diversify the genAI models they use, they must vet their providers carefully and ensure that they collect all of the evidence necessary to avoid exposing themselves to investigation and fines.



PREDICTION

Three out of four firms that build aspirational agentic architectures on their own will fail.

AI agentic architectures were a top emerging technology for 2024, but they're not ready yet — expect another two years before they have any chance of meeting inflated automation hopes. Meanwhile, agentic AI is all the rage as companies push generative AI beyond basic tasks into more complex actions. The challenge is that these architectures are convoluted, requiring multiple models, advanced retrieval-augmented generation (RAG) stacks, advanced data architectures, and specialized expertise. Aligning these models for focused outcomes is an unresolved issue that will disappoint eager developers. As a result, 75% of enterprises that attempt to build these agents themselves next year will fail and turn to consultancies to build custom agent setups or use agents embedded in their existing vendor software ecosystems. Savvy firms will grasp current limitations and lean on their vendor and systems integrator partners to build agents at the cutting edge of this technology.

PREDICTION

Private cloud will gain momentum with VMware alternatives.

On-premises computing (by any name) is on the rise again as companies solve sovereignty, cost, and data ownership/security challenges. Most large enterprises already take a hybrid cloud approach, and they will further invest in private cloud for workloads requiring data storage and processing on-premises for security, privacy, and regulatory compliance (e.g., pretraining and fine-tuning of foundation models, RAG integration, AI agent automation). But newcomers and private cloud expanders won't likely increase business with dominant private cloud player VMware given recent bundling and pricing changes. In 2025, Forrester predicts that most major public cloud providers will increase investments in private cloud. Hyperconverged offerings like Nutanix and open-source projects like OpenStack will see increased interest. OpenStack's success will require an improved tech vendor ecosystem. But keep in mind that private cloud growth will occur in parallel to public cloud's, not at its expense, and many VMware shops will renew at a limited scale.

Activate Our Predictions Within Your Organization

Forrester analysts predict changes for 2025 that will present both challenges and opportunities for your organization. Take the next steps to dig deeper into the details of these predictions as well as strategies for driving positive growth. We invite you to join us for:

2025 Technology & Security Predictions Webinar

Join us on January 30, 2025 for a live webinar featuring Forrester analysts discussing our top technology and security predictions. If you're not available on that date, be sure to tune in for the on-demand version.

REGISTER NOW

2025 Technology & Security Predictions Webinar — APAC Region

If you're in the Asia Pacific region, join our webinar on November 26, where analysts based in the region will review our technology predictions for 2025.

REGISTER NOW

Discover more complimentary Predictions 2025 resources.

LEARN MORE

Security & Risk Summit 2024

Join us for our Security & Risk Summit, December 9–11 in Baltimore. Forrester's flagship security event features 30-plus sessions, workshops, keynotes, case studies, and specialized tracks for targeted learning.

LEARN MORE

Technology & Innovation Summit North America 2025

Attend this event live in Austin on November 3–6, 2025 to gain insight into achieving a high-performance IT strategy and find out how our 2025 predictions held up.

LEARN MORE

Ready to get started now? Give us a call:

Americas: +1 615.395.3401

EMEA: +44 (0)207 323 7741

Australia: +61 2 9159 4925

Singapore: +65 6426 7060

India: +91 1142840027