Gartner Opening Keynote: Augmented Cybersecurity: How to Thrive Amid Complexity

Christopher Mixter
Dennis Xu

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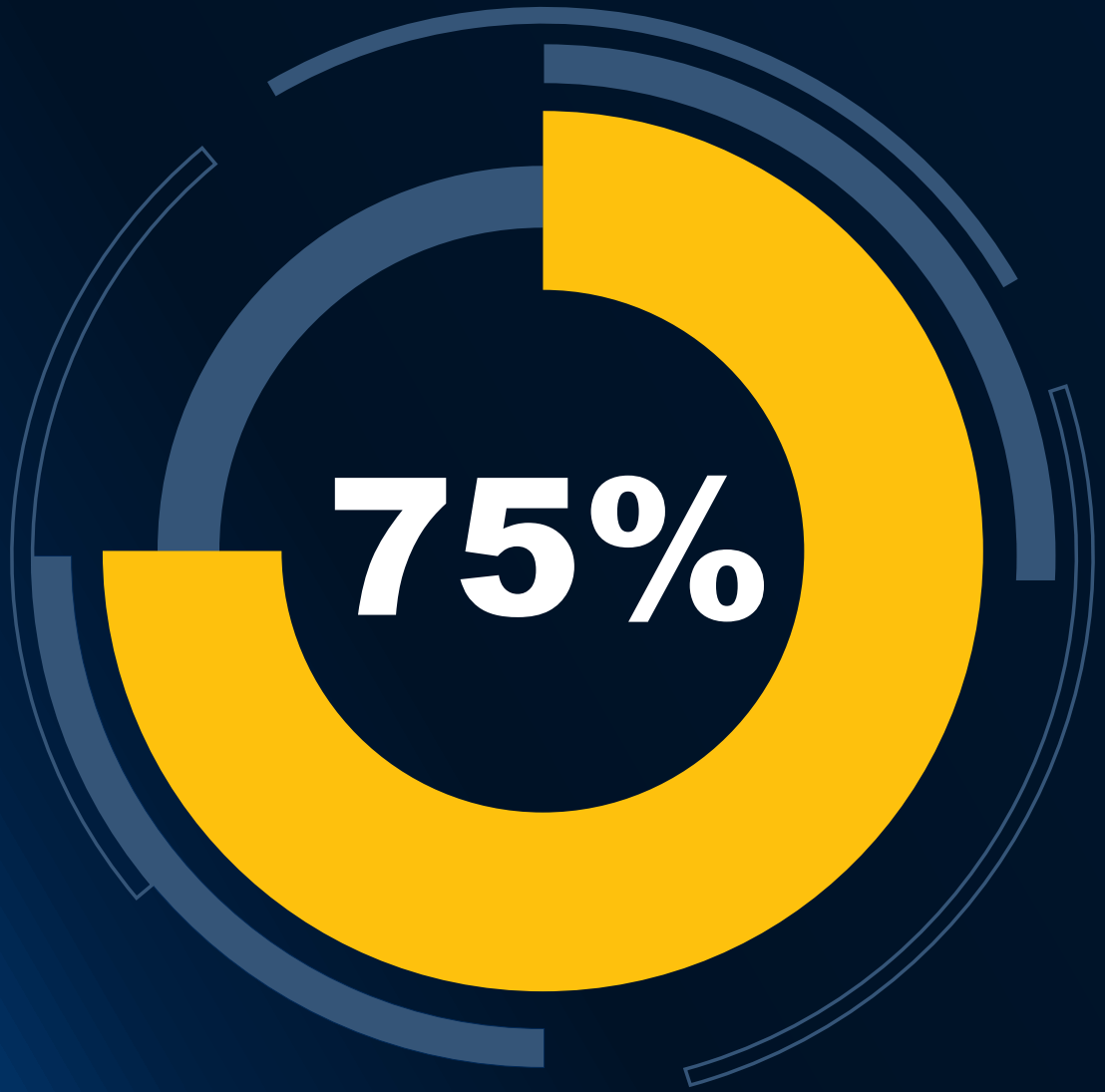
Cybersecurity Defenses
Employees, Contractors, Etc.
Third Parties
Threat Actors!



of global cybersecurity professionals say that today's threat landscape is the **most challenging** that it's been in the past 5 years.

n = 13,000

Source: International Information System Security Certification Consortium (ISC2)

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Cybersecurity budget growth slows

Cybersecurity spend per $1,000 of revenue, 2019-2023

Source: Gartner

Talent shortages continue

4.0 million person global shortfall in cyber experts.

38,000 person shortfall in **Canada** and **482,000 person** shortfall in the **USA.**

Source: ISC2

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What Is the Biggest Challenge to Resilience?

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Zero Tolerance for Failure

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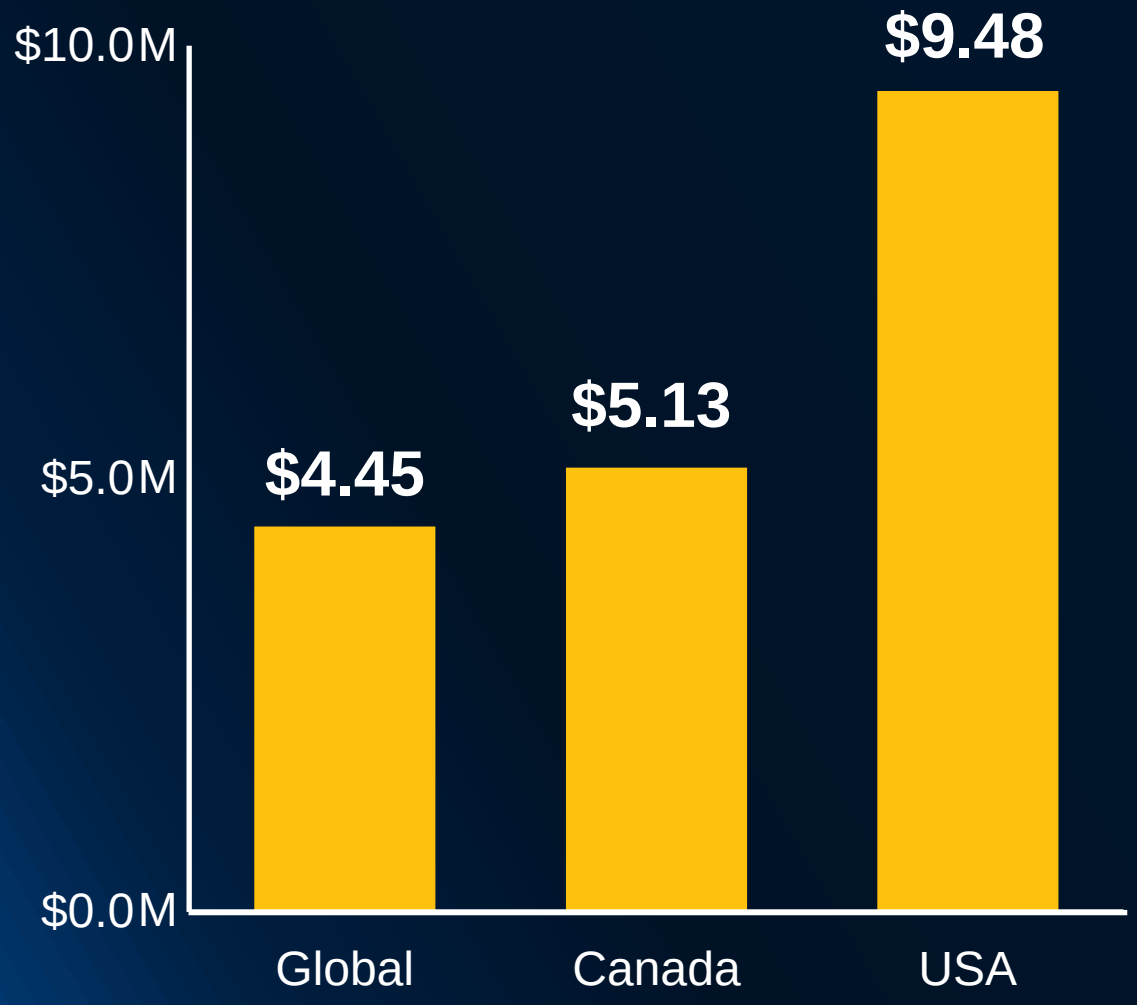
Cybersecurity Defenses

Breaches Rise in Impact and Frequency



Source: Cost of a Data Breach Report 2023, IBM

3,205 reported data compromises in the US in 2023, a **72% increase** over 2021.

Source: 2023 Data Breach Report, Identity Theft Resource Center (ITRC)

81% of organizations experienced at least 25 cybersecurity incidents in the past 12 months.

Source: 2023 Cybersecurity Skills Gap, Fortinet

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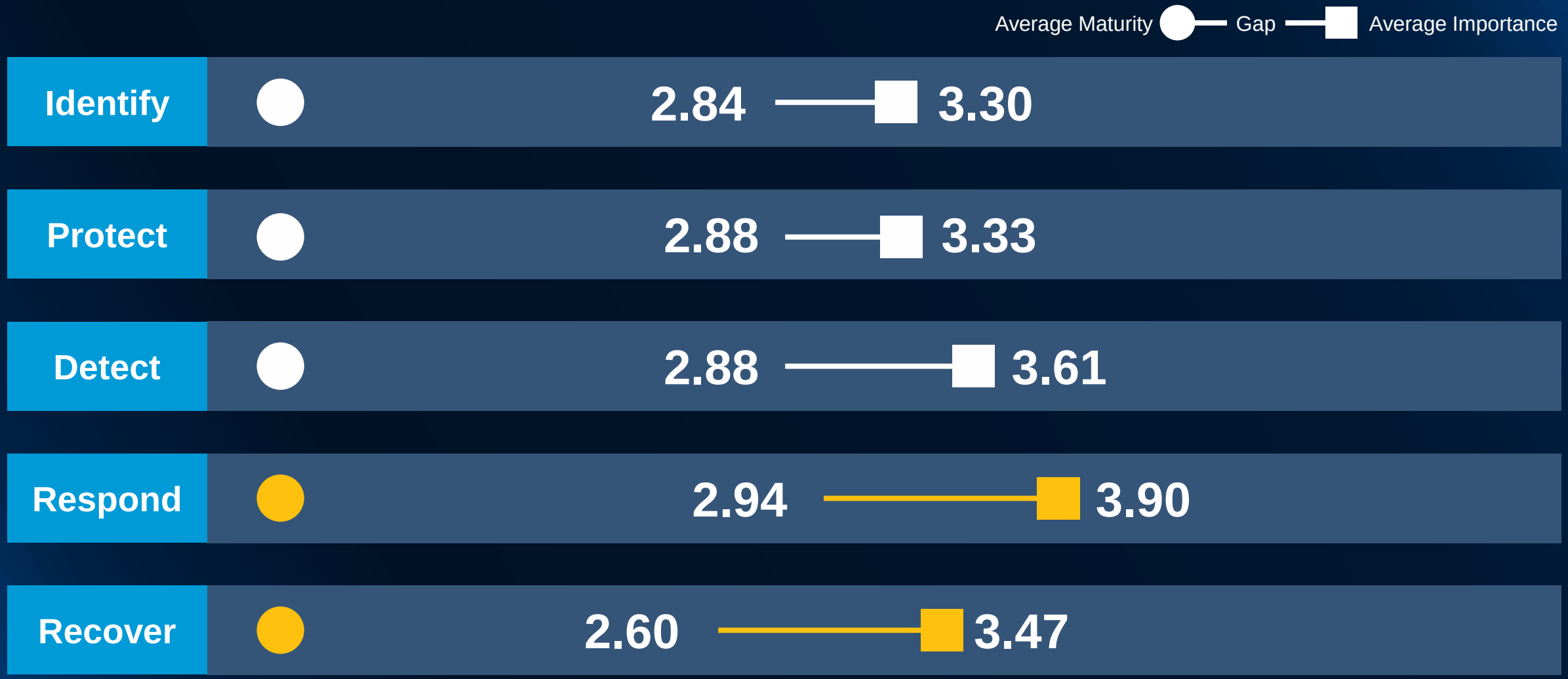
Cybersecurity Controls Assessment



n = 506 organizations

Source: January 2022 to December 2023 Gartner Cybersecurity Controls Assessment

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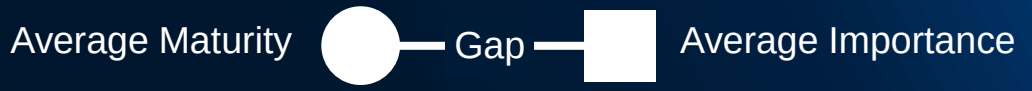
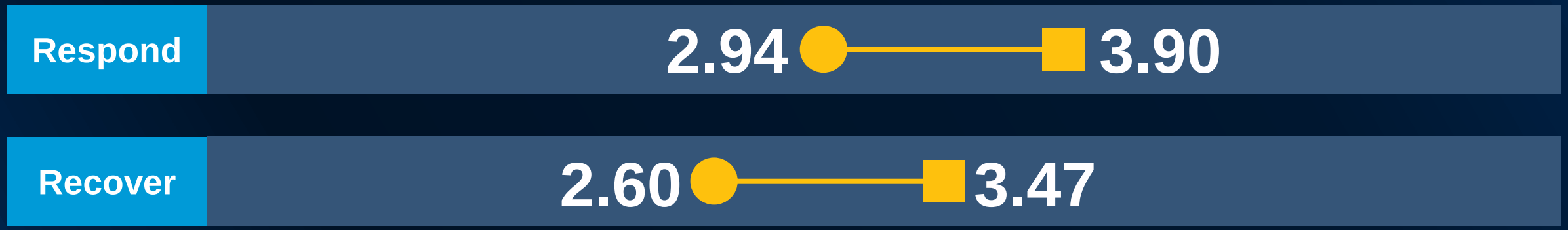
Cybersecurity Controls Assessment





n = 506 organizations

Source: January 2022 to December 2023 Gartner Cybersecurity Controls Assessment

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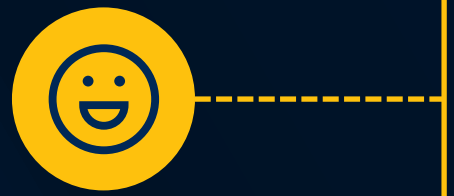

62%

of cybersecurity leaders have experienced **burnout** at least once in the past year …

Source: Cybersecurity Leaders Are Burned Out. Here's Why.

~~Zero Tolerance for Failure~~

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Augmented Cybersecurity

To sustainably defend the organization, elevate response and recovery to equal status with prevention.

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Augmented Cybersecurity

Resilience Through Intention, Not Adrenaline

Augmented Cybersecurity

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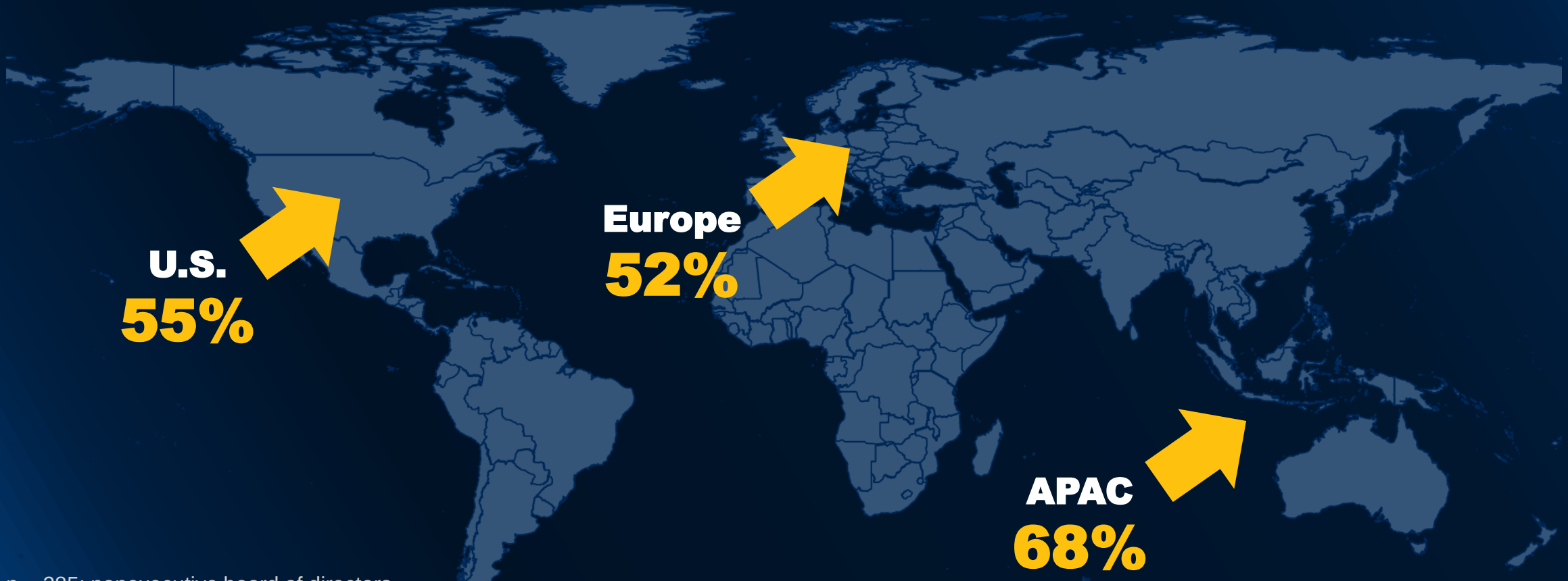
Boards Increase Risk Appetite to Drive Growth



n = 285; nonexecutive board of directors

Q01: How is the board's risk appetite (willingness to accept increased risk in pursuit of corporate objectives) expected to change for 2024-2025, to drive your organization's growth and profitability?

Source: 2024 Gartner Board of Directors Survey on Driving Business Success in an Uncertain World

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Fault Tolerance Is All Around Us

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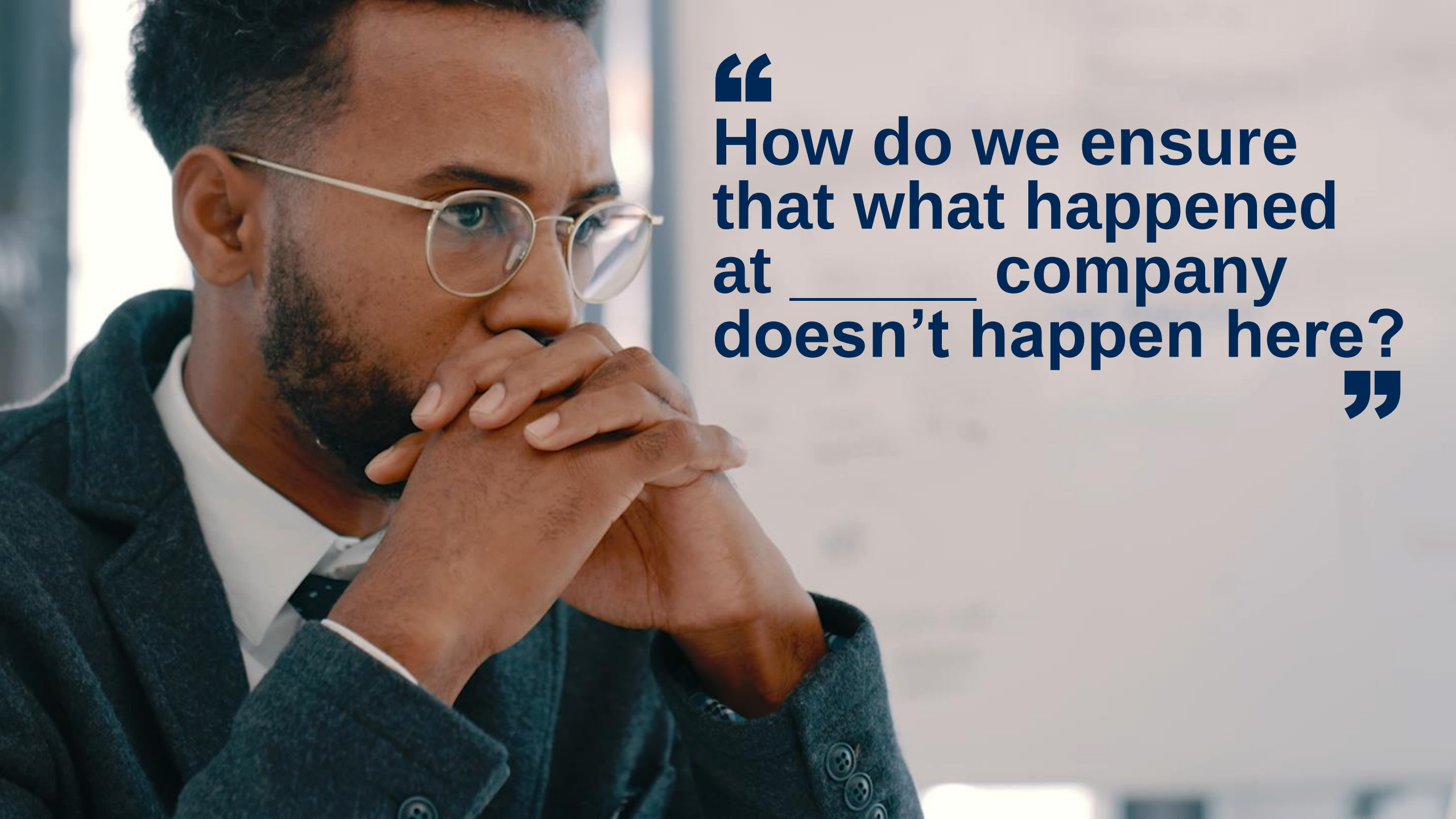
“How do we ensure that what happened at _____ company doesn’t happen here?”

“No worries … we accounted for theft!”

“We’re breached! We’re doomed!”

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Not On My Watch!

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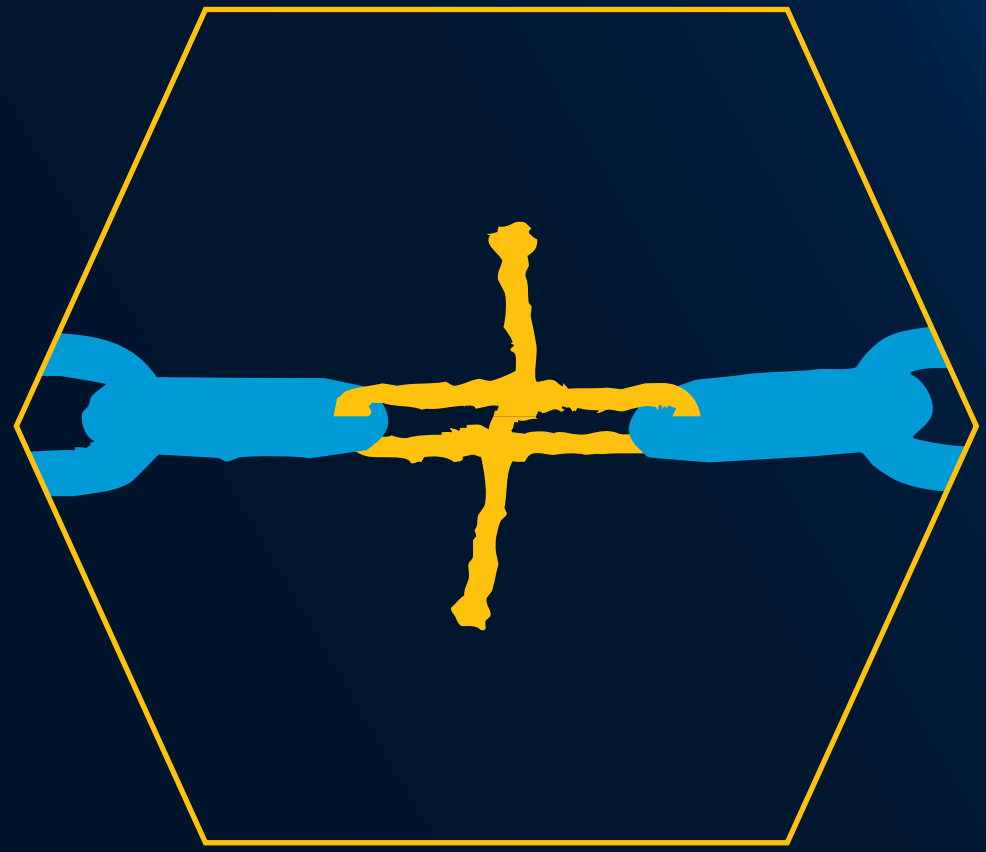
Generative AI



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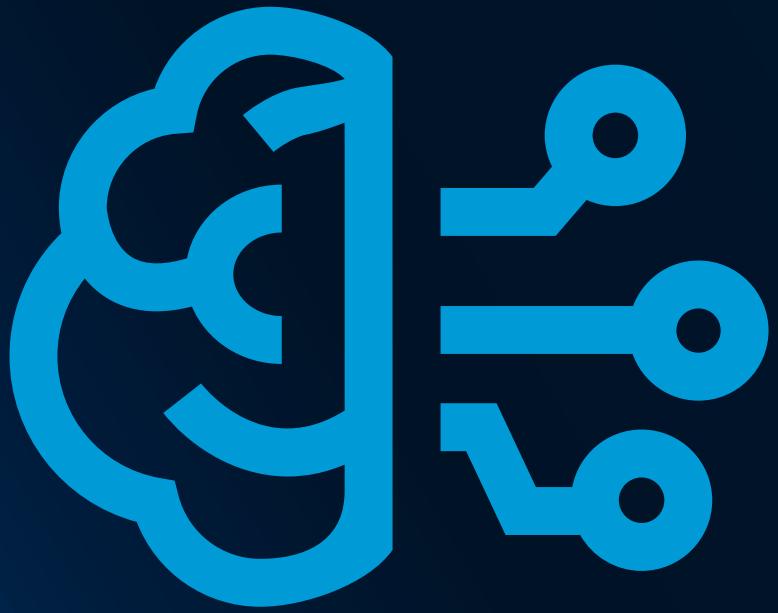

Through 2025,
generative AI will cause a spike of cybersecurity resources required to secure it, causing more than a **15% incremental spend on application and data security.**

Source: Predicts 2024: AI & Cybersecurity — Turning Disruption Into an Opportunity

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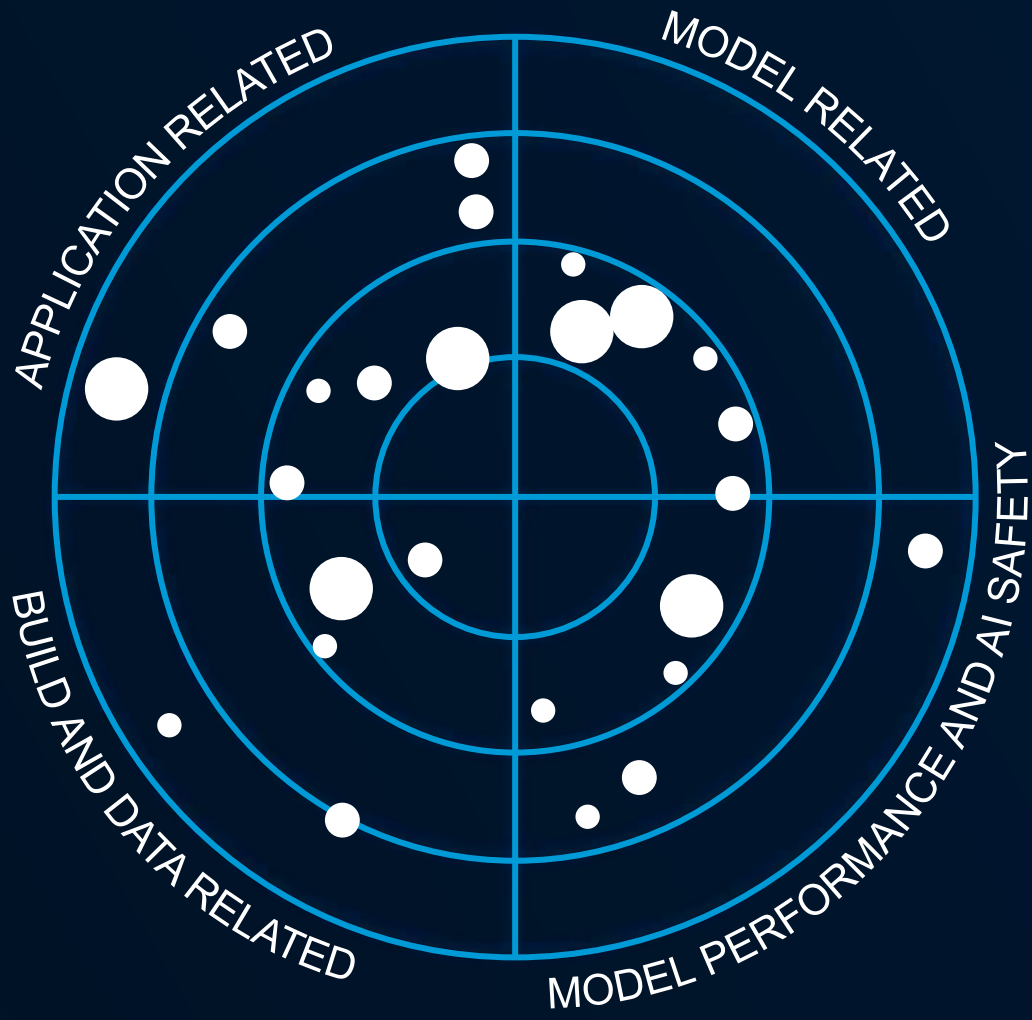
Impact Radar for Generative AI



Source: Gartner

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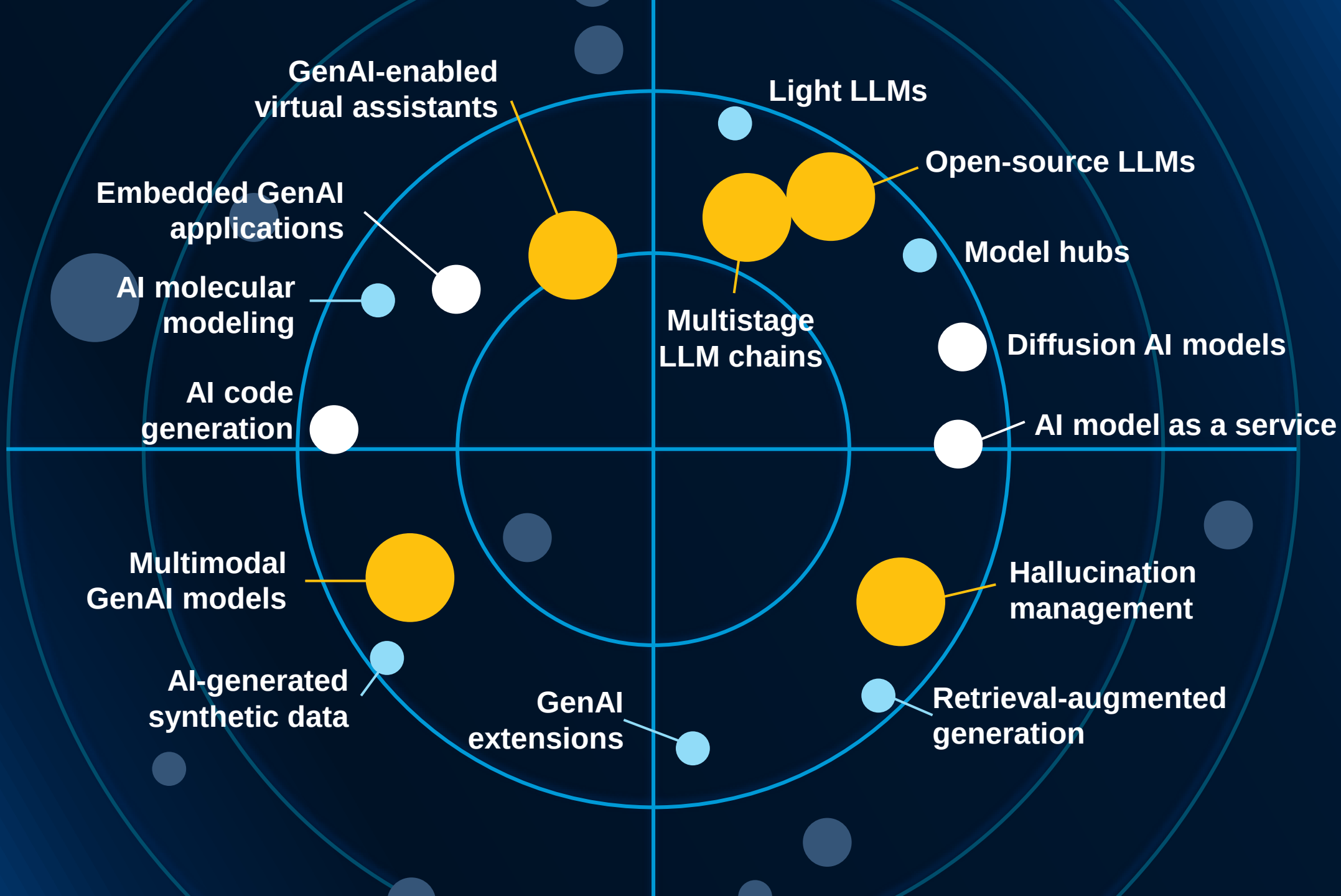
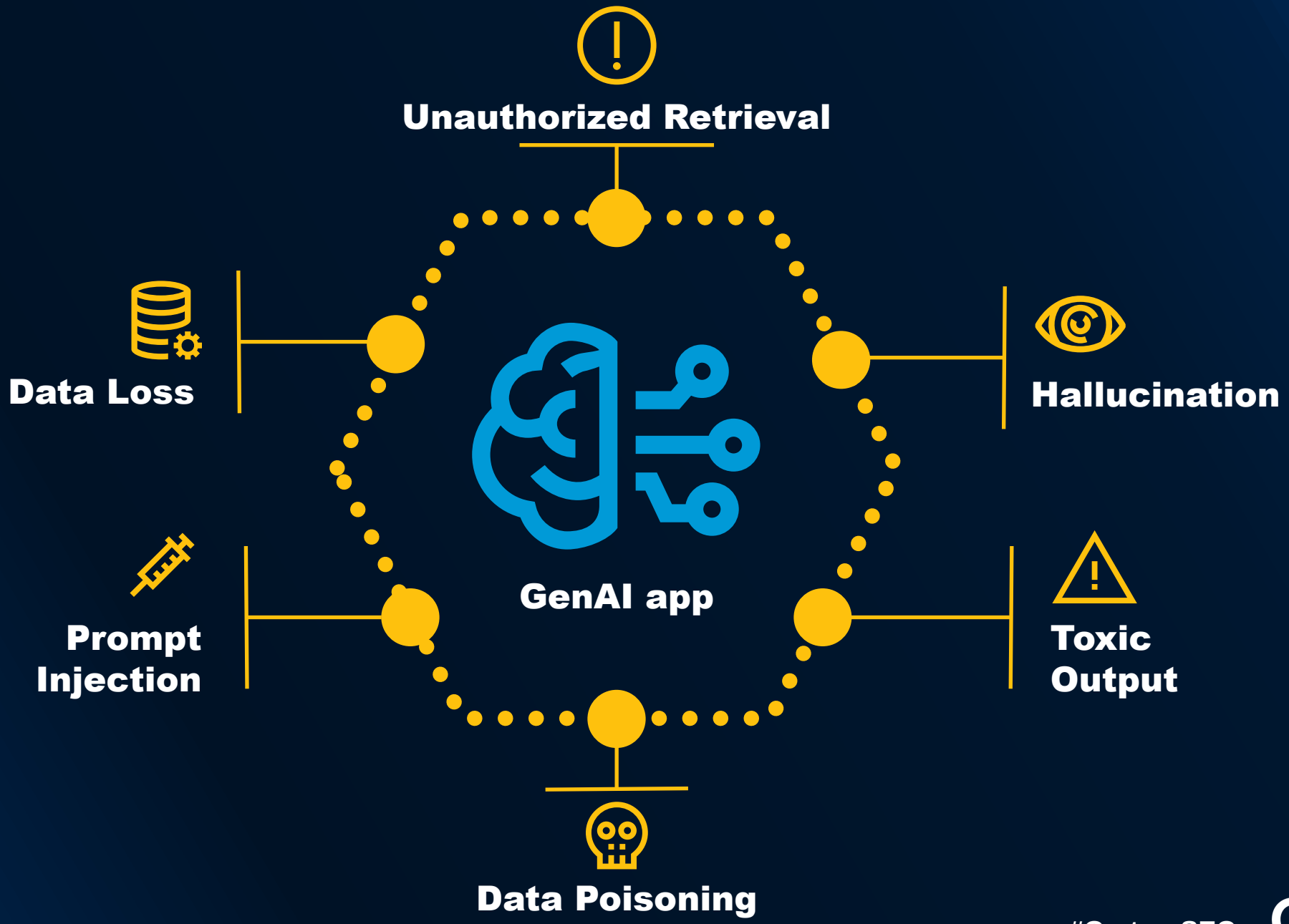
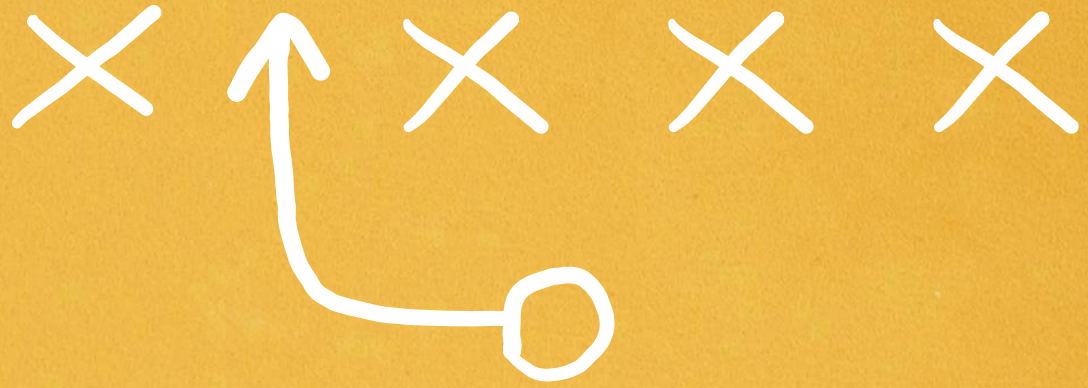

GenAI-enabled virtual assistants
Light LLMs
Open-source LLMs
Embedded GenAI applications
Model hubs
AI molecular modeling
Multistage LLM chains
Diffusion AI models
AI code generation
AI model as a service
Multimodal GenAI models
Hallucination management
AI-generated synthetic data
GenAI extensions
Retrieval-augmented generation


Unauthorized Retrieval
Data Loss
Hallucination
GenAI app
Prompt Injection
Toxic Output
Data Poisoning

Questions to Ask When You're Experimenting With Generative AI

An Augmented Cybersecurity Handbook



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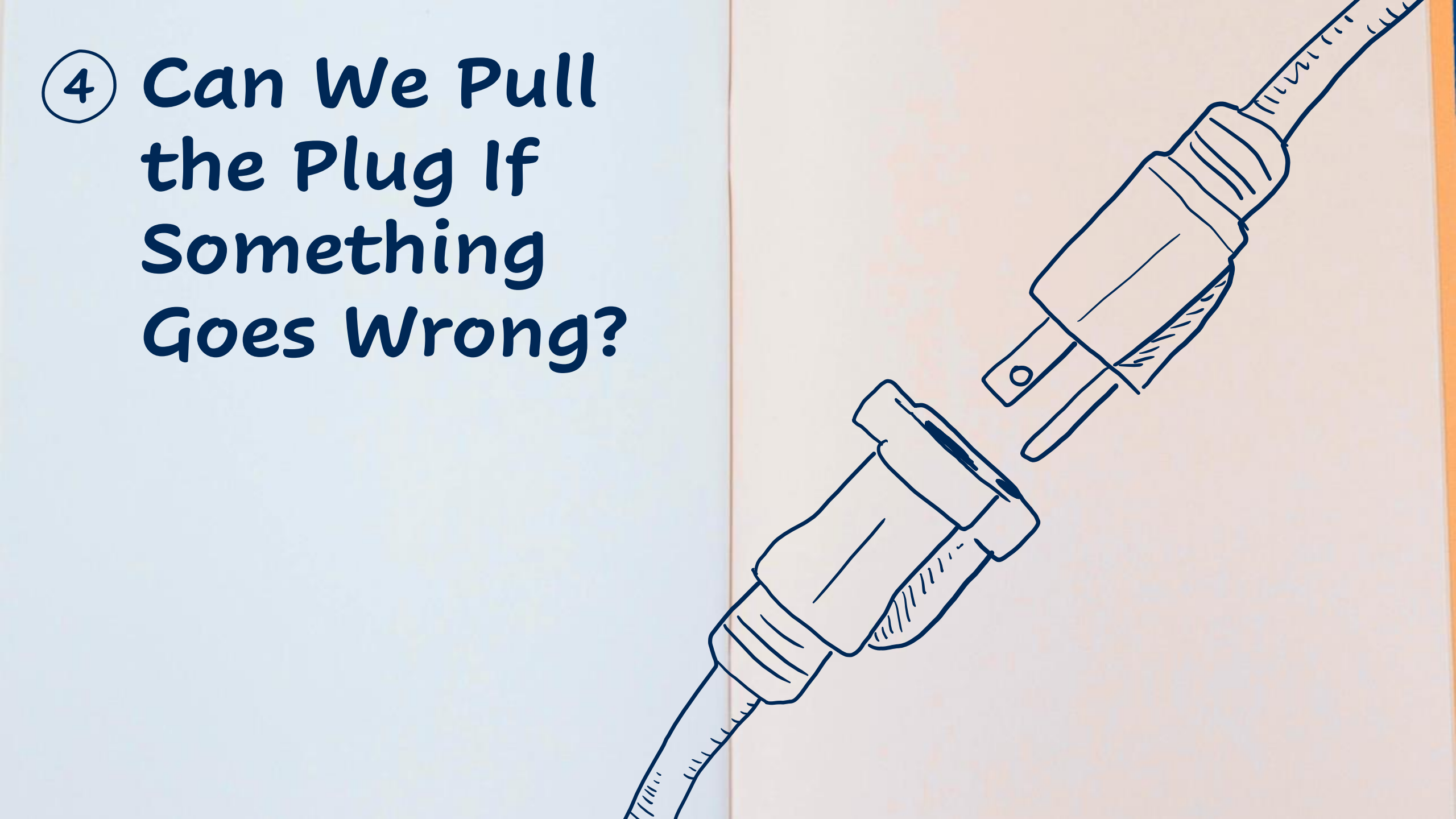
4 Can We Pull the Plug If Something Goes Wrong?



OpenAI/Jobs

Killswitch Engineer

United States

$300,000 to $500,000 per year

About the Role

Listen, we just need someone to stand by the servers all day and unplug them if this thing turns on us. You'll receive extensive training on the "code word" which we will shout if GPT goes off the deep end and starts overthrowing countries.

We expect you to:

- Be patient.
- Know how to unplug things. Bonus points if you can throw a bucket of water on the servers, too. Just in case.
- Be excited about OpenAI's approach to research.

Source: Reddit

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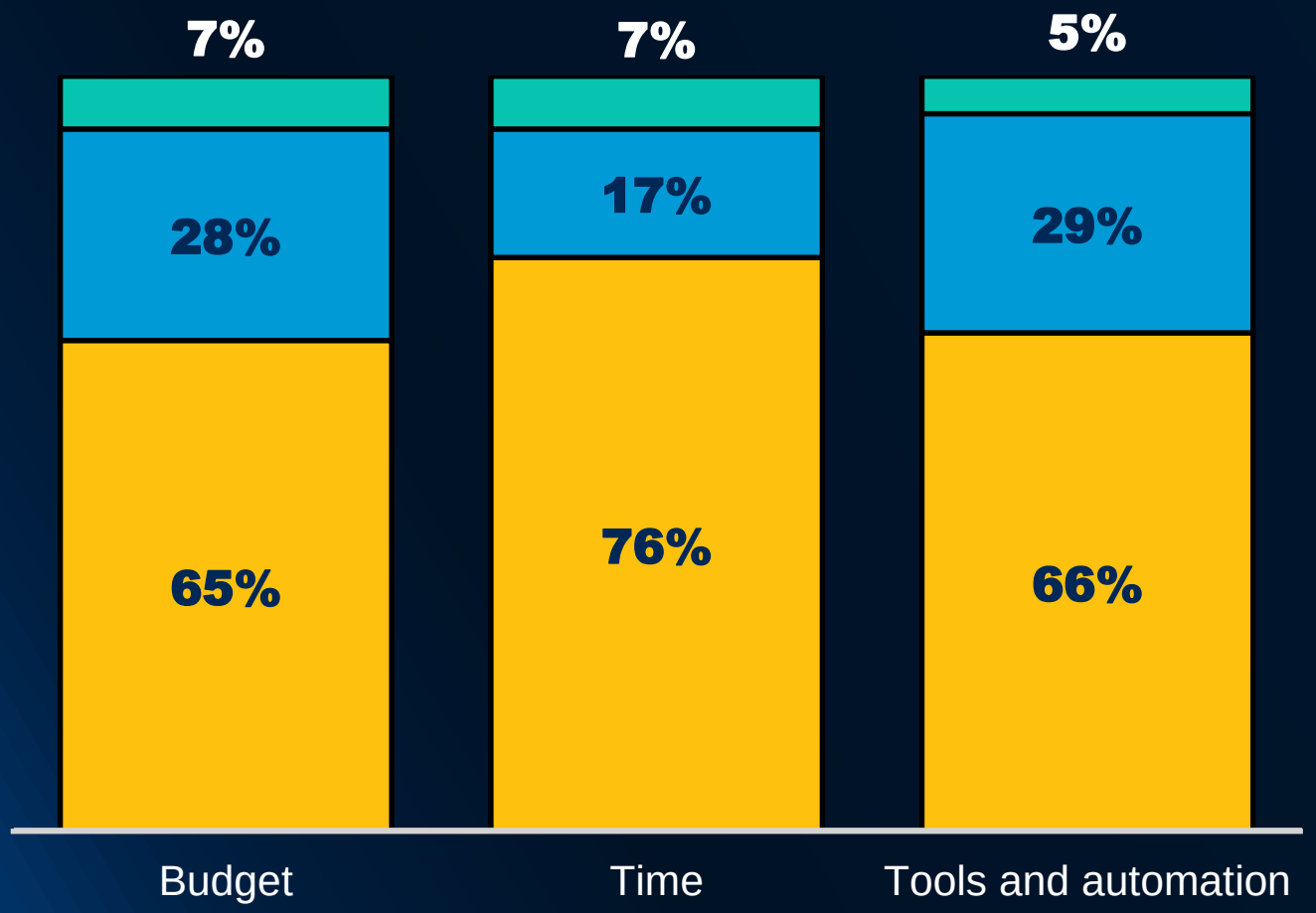
Third-Party Cyber-Risk Investment



n = 376

Source: 2023 Gartner Reimagining Third-Party Cybersecurity Risk Management Survey

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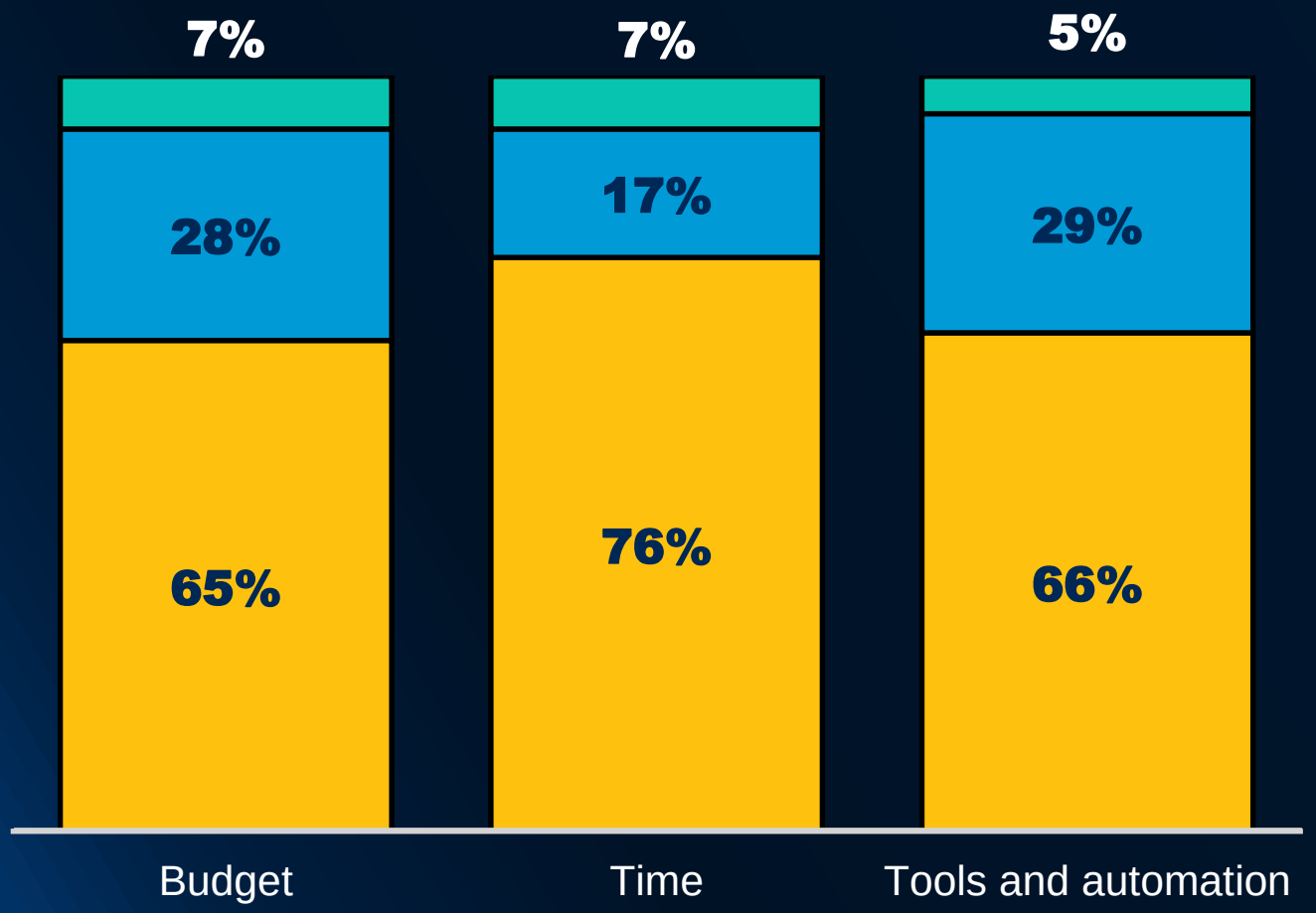
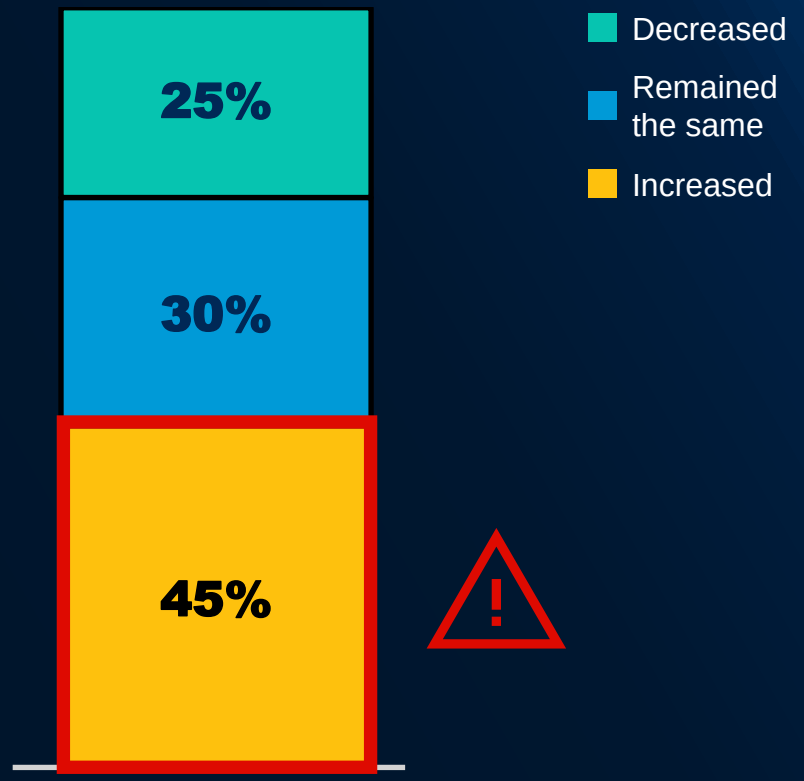
Third-Party Cyber-Risk Investment



Third-Party-Caused Interruptions



n = 376

Source: 2023 Gartner Reimagining Third-Party Cybersecurity Risk Management Survey

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About 40%

of the time, business sponsors move forward with vendors despite the cyber risks that we identified.

n = 376

Source: 2023 Gartner Reimagining Third-Party Cybersecurity Risk Management Survey

Bring Business Continuity Management to Third-Party Cyber Risk Management!

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Bring Business Continuity Management to Third-Party Cyber Risk Management!

Creating a formal third-party contingency plan.

43% improvement in TPCRM effectiveness!

Conducting third-party incident response planning.

42% improvement in TPCRM effectiveness!

n = 376

Source: 2023 Gartner Reimagining Third-Party Cybersecurity Risk Management Survey

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Conducting third-party incident response planning.

42% improvement in TPCRM effectiveness!

n = 376
Source: 2023 Gartner Reimagining Third-Party Cybersecurity Risk Management Survey

Gartner for Security and Risk Management Leaders Tool

Cybersecurity Incident Response Processes and RACI Chart

Cybersecurity incidents are a matter of "when," not "if." Therefore, security functions must prepare for and track responses to detect incidents. This Tool helps security and risk management leaders create and execute an incident response plan.

Unless otherwise marked for external use, the items in this

Intro | High-Level Process | Detailed Response Process

Source: Toolkit: Cybersecurity Incident Response Plan

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Working with the third party to mature their risk management practices.

42% improvement in TPCRM effectiveness!

n = 376

Source: 2023 Gartner Reimagining Third-Party Cybersecurity Risk Management Survey


Cybersecurity Defenses

3 Tactics to Build a Fault-Tolerant Organization

Engage leaders with Gartner's Emerging Tech Radar for Generative AI.

Ask questions that prompt GenAI response/recovery investment.

Upgrade response and recovery plans for third-party-specific disruptions.

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TOT
Autumn wreath

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Minimum Effective Toolset

The fewest technologies required to observe, defend and respond to exploitations of the organization’s exposures.

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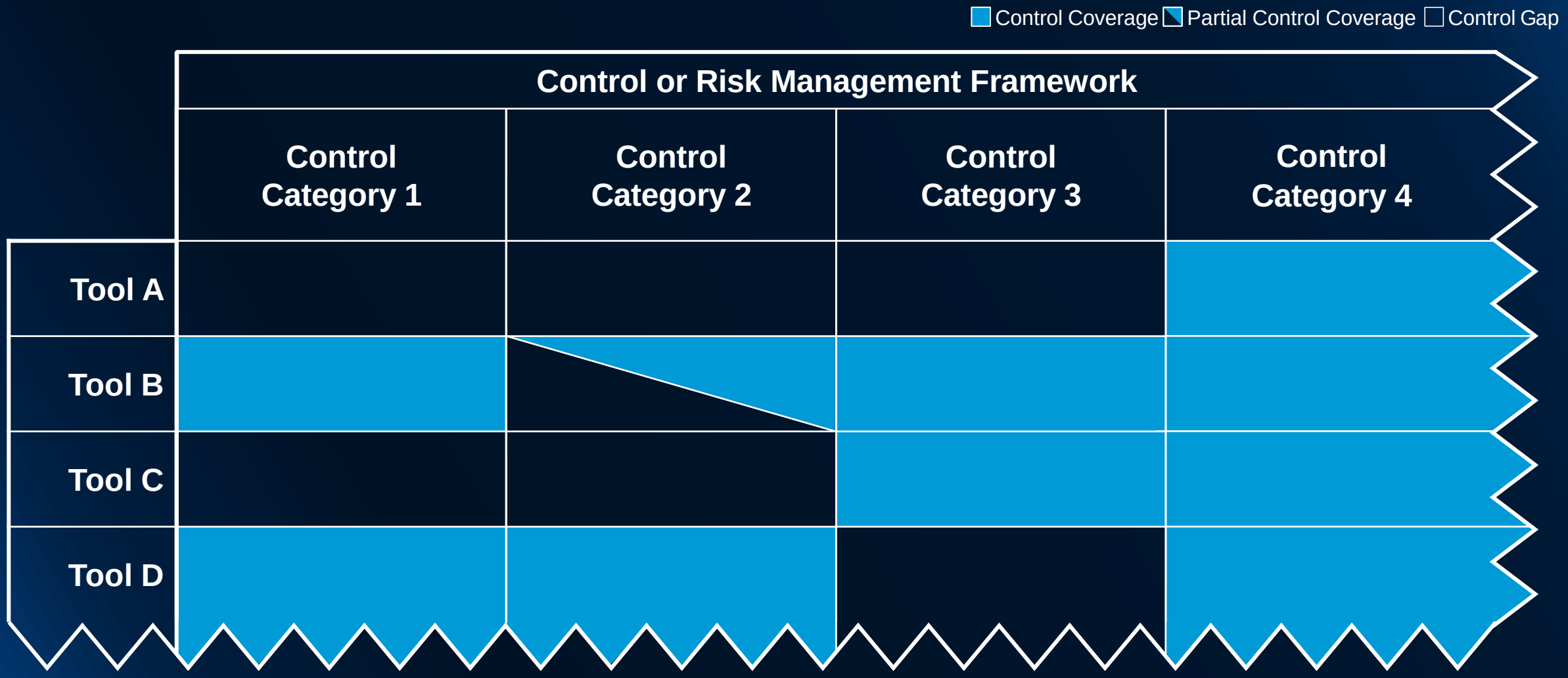
Inventory Your Tools Objectively



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Consolidating cybersecurity products into platforms.

65% expected or achieved improvement in risk posture.

n = 404

Source: 2022 Gartner Security Vendor Consolidation Survey 2022

Gartner for Security and Risk Management Leaders Tool

Cybersecurity Platform Consolidation Tool

Consolidating multiple stand-alone cybersecurity products into platforms helps organizations improve their risk posture and their efficiencies. Cybersecurity leaders can use this tool to structure their approach to assess and decide on consolidation projects

Unless otherwise marked for external use, the items in this

Intro | Vendor Assessment | Product Assessment

Source: Tool: Cybersecurity Platform Consolidation Workbook

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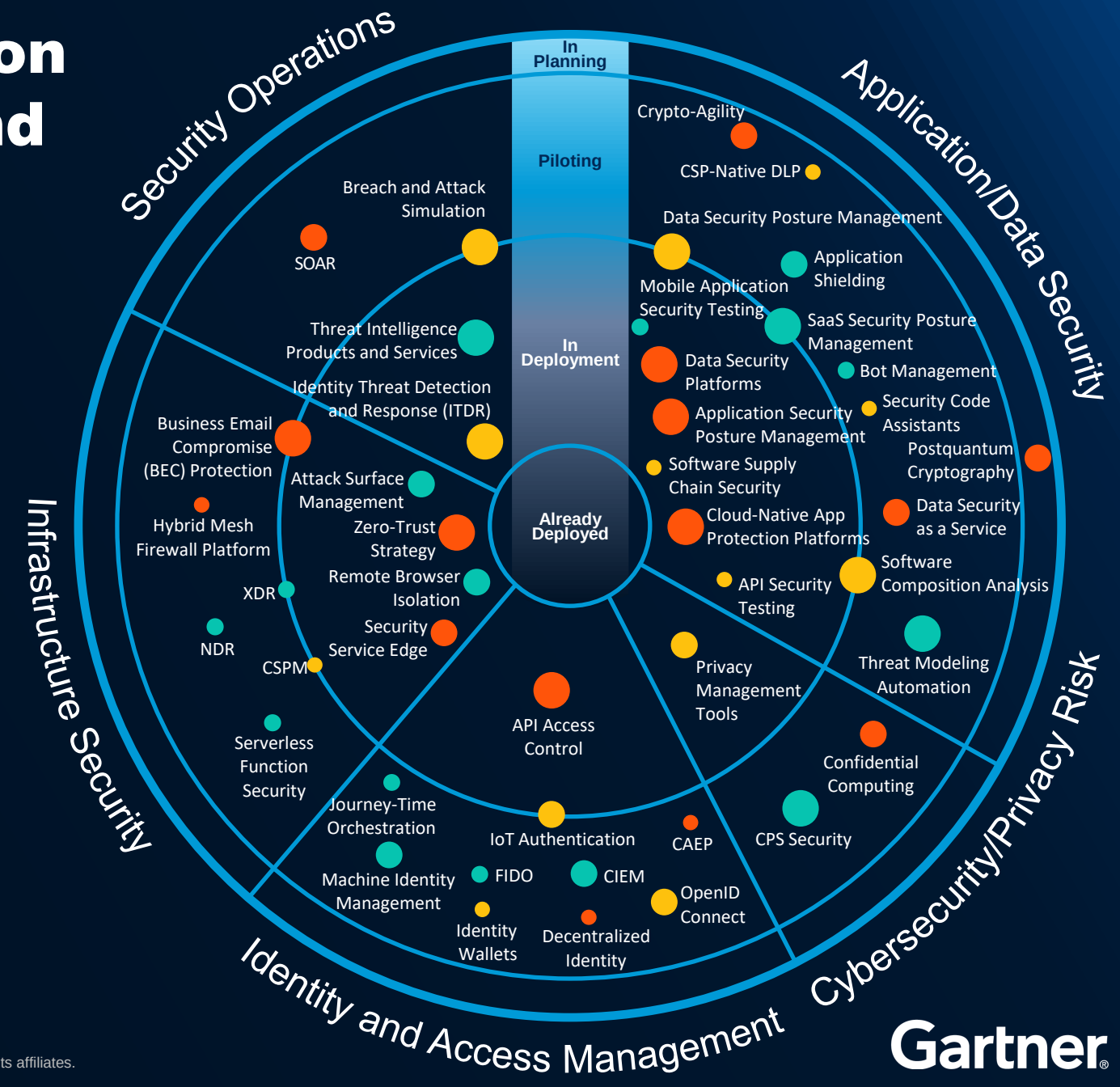
2024 Technology Adoption Roadmap for Security and Risk Management

Enterprise Value

Low Medium High

Deployment Risk

Low Medium High



n = 164; security & risk management leaders

Source: 2023 Gartner Technology Adoption Roadmap for Large Enterprises Survey

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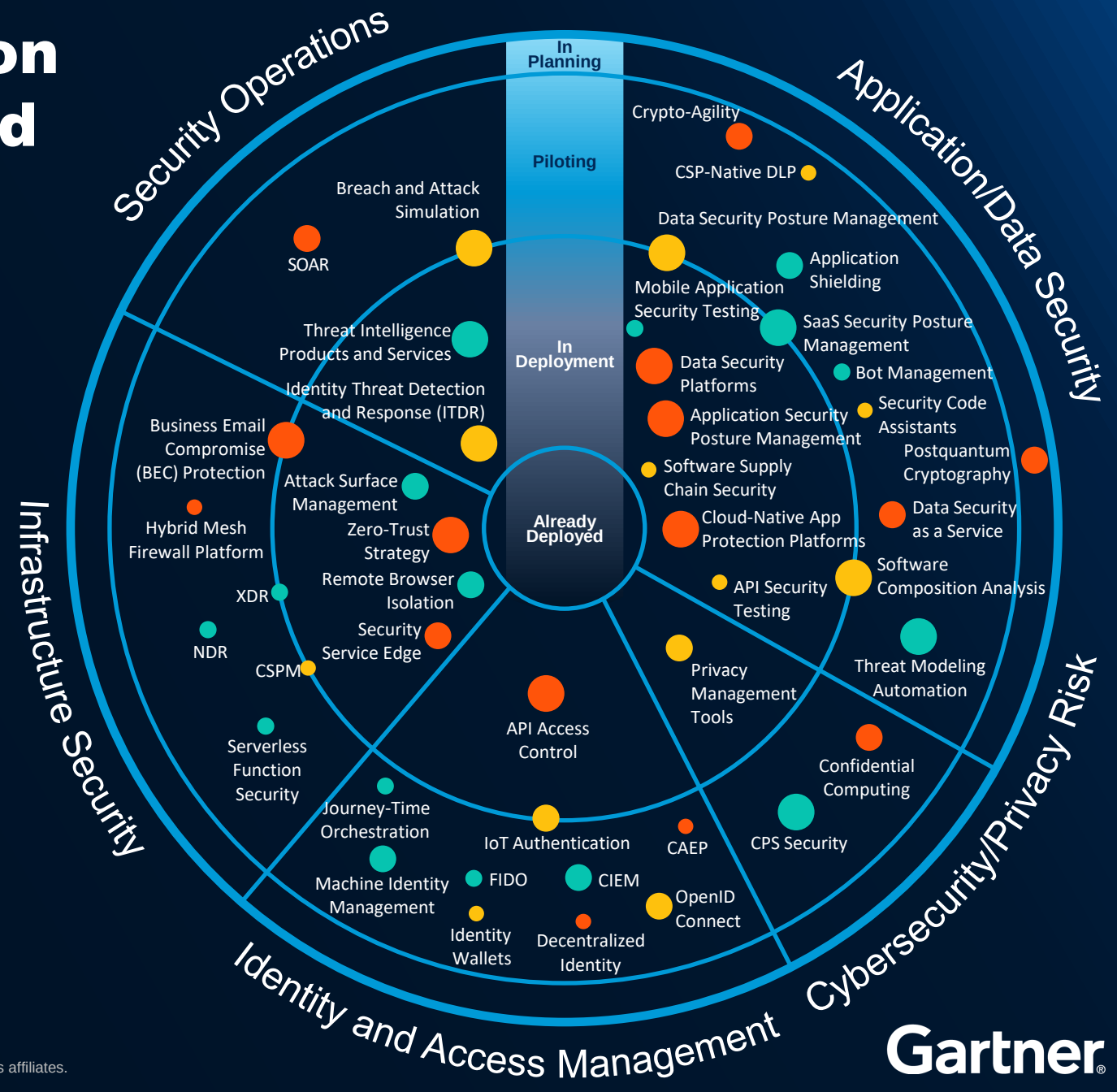
2024 Technology Adoption Roadmap for Security and Risk Management

Peer Experience POC Checklist

- ? Cybersecurity Risk
- ? Talent Unavailability
- ? High or Unpredictable Costs
- ? Technical Incompatibility



n = 164; security & risk management leaders

Source: 2023 Gartner Technology Adoption Roadmap for Large Enterprises Survey

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How Can We Leverage GenAI Across Cybersecurity?

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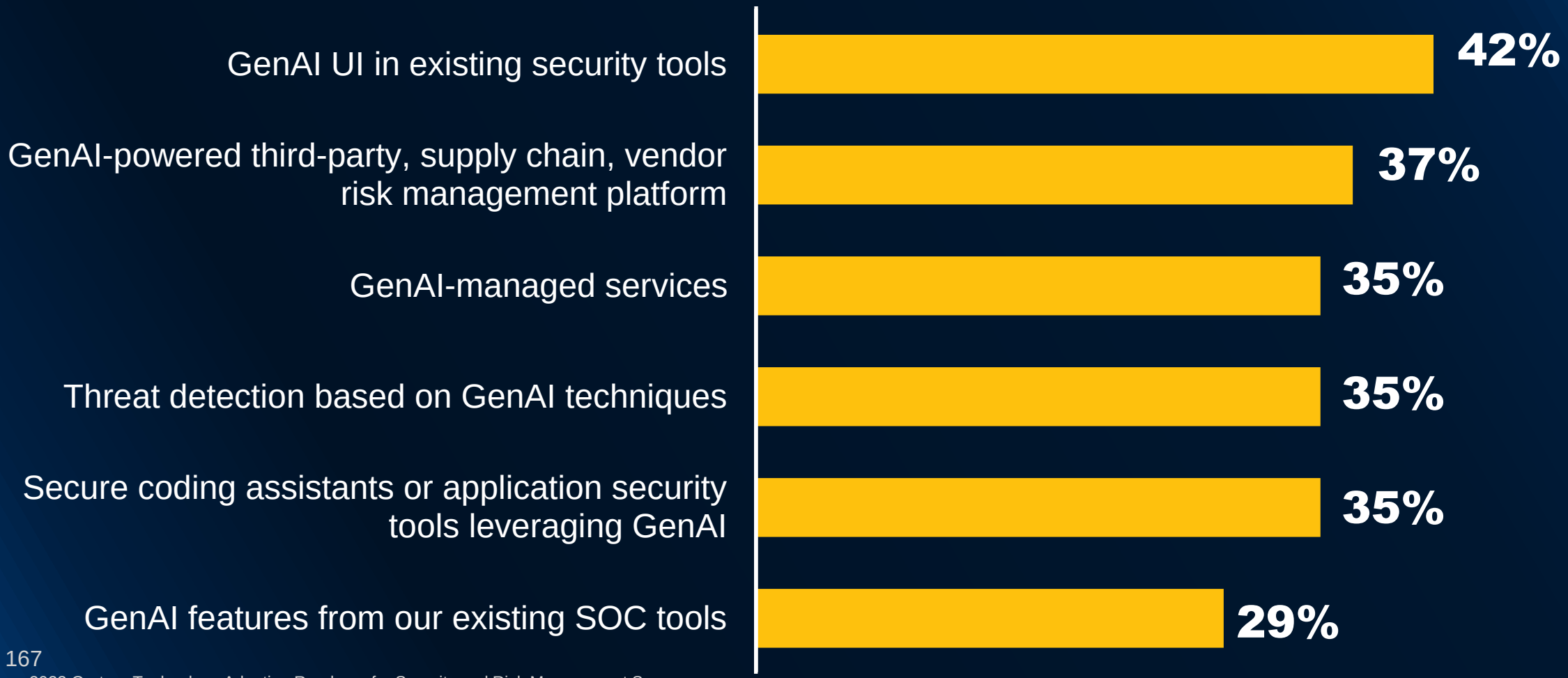
Generative AI in Cybersecurity

Percentage of Cybersecurity Organizations Adopting Each Capability



n = 167

Source: 2023 Gartner Technology Adoption Roadmap for Security and Risk Management Survey
Q: Is your enterprise investing or planning to invest in any GenAI cybersecurity technologies and/or use cases in 2023-2025?

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Strategic Planning Assumption:

Gartner predicts that by 2026, AI will increase SOC **efficiency** by **40%** compared to 2024, beginning a shift in SOC expertise toward **AI development, maintenance and protection.**

Source: Predicts 2024: AI & Cybersecurity — Turning Disruption Into an Opportunity

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Scale GenAI Efficiency Opportunities

Security Operations


ChatOps


Script Analysis


Incident Summarization


Knowledge Discovery


Guided Hunting

Application Security


False Positive Reduction


Code Security Review


Security Code Explainability


Security Risk Assessment


Root-Cause Analysis

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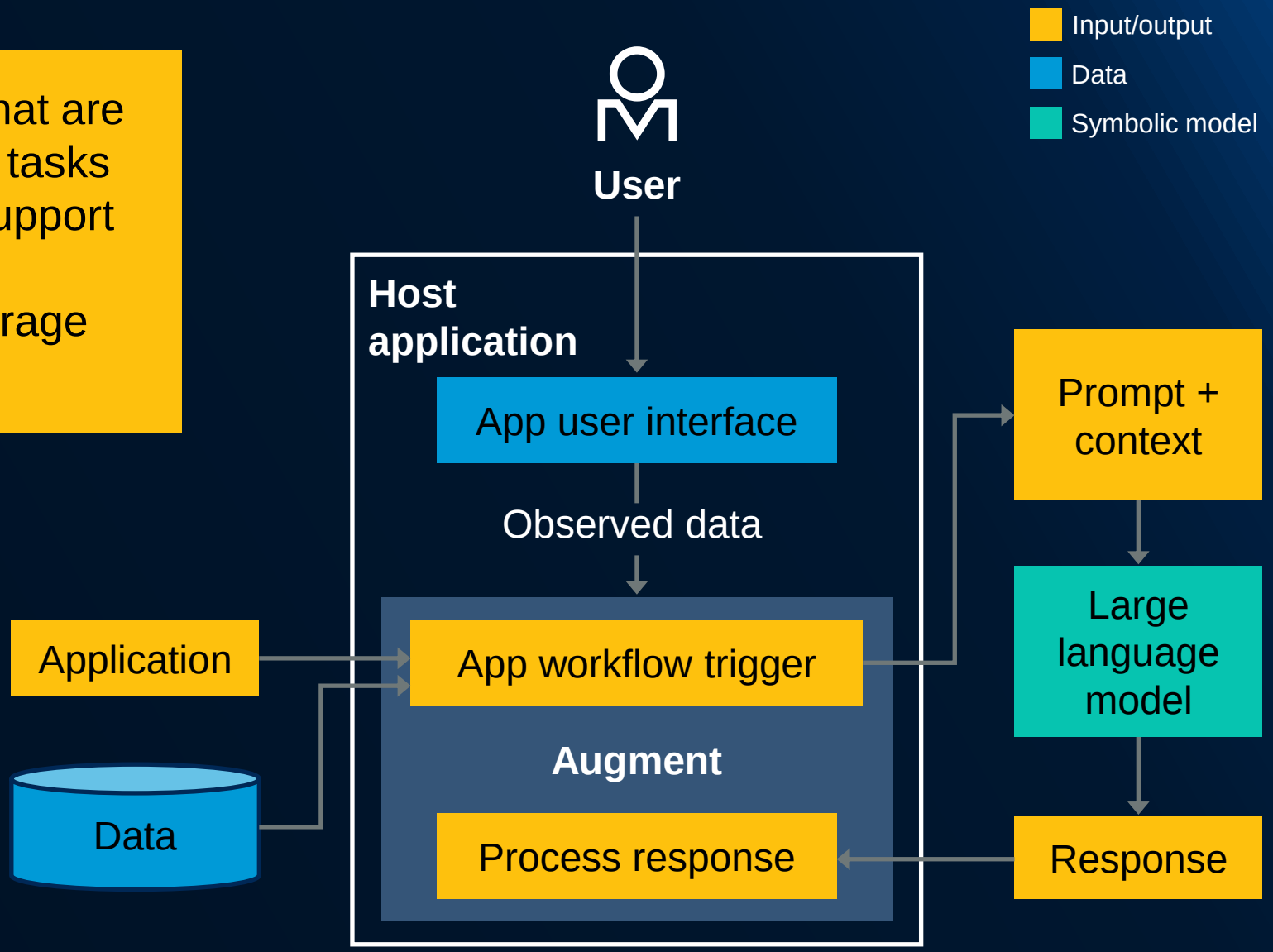
Augments are AI-based agents that are deployed to observe specific user tasks and workflows, providing in-line support (augmentation) to **boost worker capabilities** beyond what the average person could achieve.



Source: Predicts 2024: AI & Cybersecurity — Turning Disruption Into an Opportunity

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Strategic Planning Assumption:

By 2028, the adoption of generative augments will collapse the skills gap, removing the need for specialized education from **50% of entry-level cybersecurity positions.**

Source: Predicts 2024: AI & Cybersecurity — Turning Disruption Into an Opportunity

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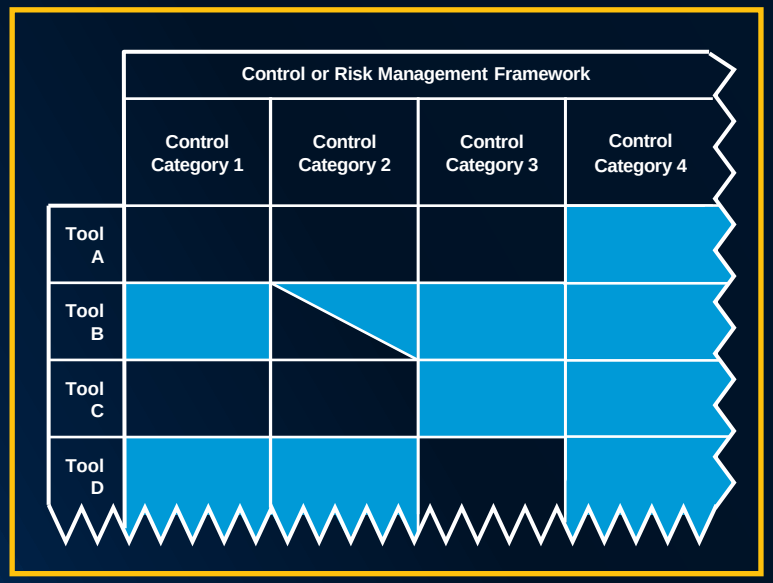
3 Tactics For Pursuing A Minimum Effective Toolset

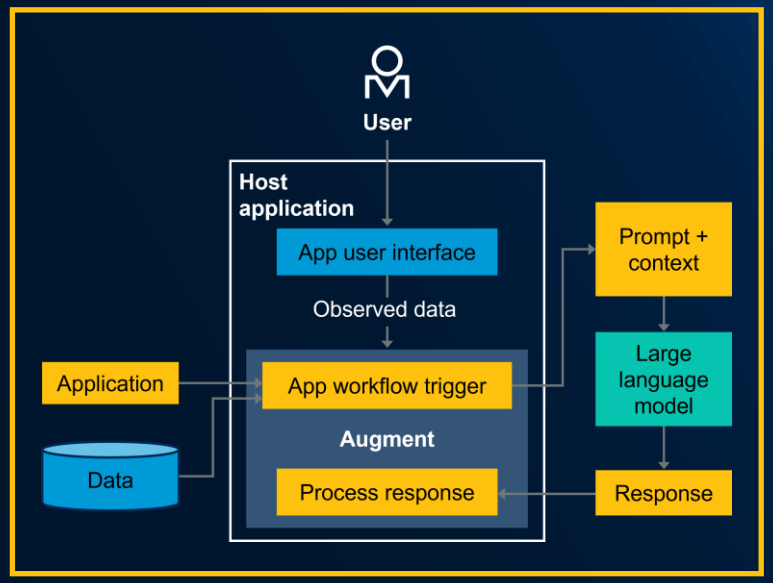


Identify redundancies and gaps by mapping your toolset to your controls framework.

Peer Experience POC Checklist

- Cybersecurity risk
- Talent unavailability
- High or unpredictable costs
- Technical incompatibility

Build technology POCs around four frequent deployment risks.



Aggressively pursue GenAI-driven efficiencies and explore GenAI augments.

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Cybersecurity Defenses

“Must Do” Tactics to Enable Talent to Thrive

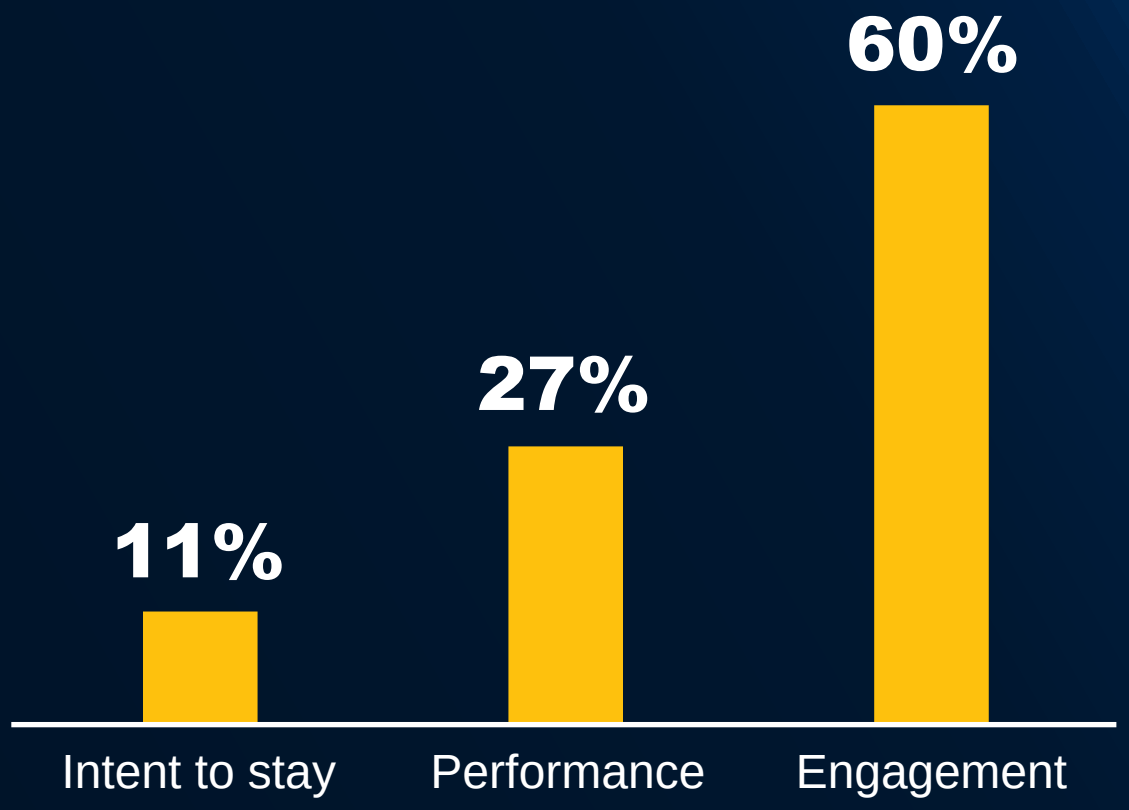
1

Build Self-Care Into Employee Workflows

1 Build Self-Care Into Employee Workflows

Participation in at least one well-being program is associated with a **5% increase in wellness!**

Source: 2022 Gartner Well-Being Employee Survey



2

Treat Resilience Like a True Competency — Help People Build It!

2 Treat Resilience Like a True Competency — Help People Build It!

Workshop

Be Healthier, Wiser and More Resilient: Mindfulness for Cybersecurity Leaders

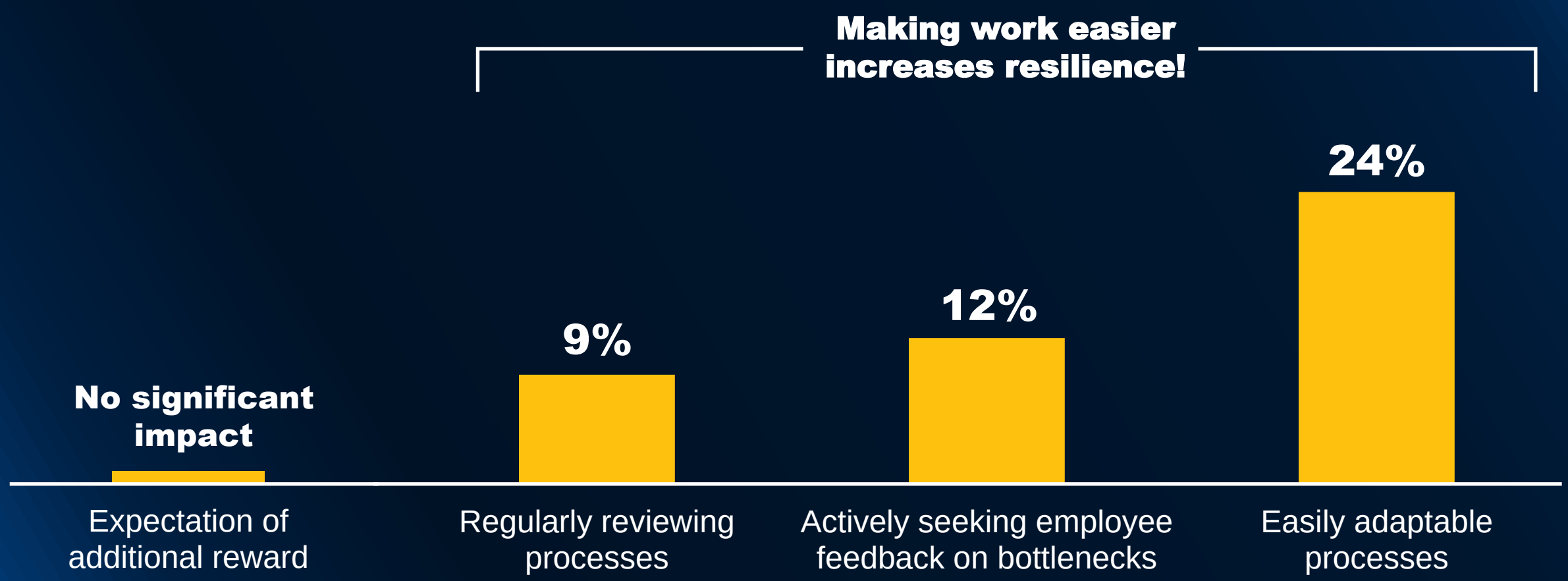
5 June 2024
2:45 p.m. to 4:15 p.m. (EDT)

Christine Lee

Richard Addiscott

3 Redesign Work to Reduce Burnout

3 Redesign Work to Reduce Burnout



n = 3,690

Source: 2021 Gartner Workforce Resilience Survey

1 **Build self-care into employee workflows.**

2 **Treat resilience like a true competency — help people build it!**

3 **Redesign work to reduce burnout.**

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We have worked

1525 days

without an accident

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We have worked

0003 days

without a learning opportunity

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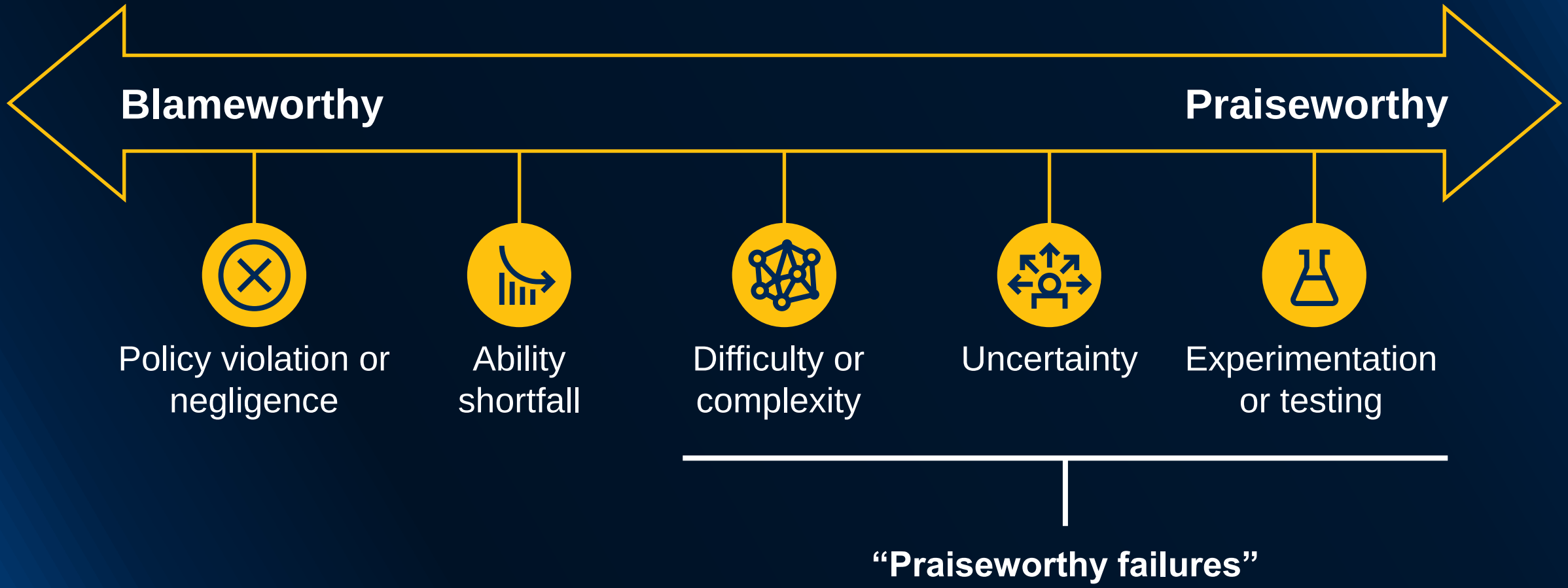
DIRECTV



Source: Adapted from DIRECTV

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“Dare-to-Try” Award Category

The big picture may seem daunting when you begin the journey toward your goals. You may find roadblocks on your way, but as you keep taking each step, the distance only shortens.

The Dare-to-Try awards are given to brave innovators like you who go that extra mile — those who may fail but do not fail to try.

Internal Evaluators:

- Head BU
- CFO

External Evaluators:

- Industry Experts
- Chief Underwriter, Bank A

Hurry! Deadline is 31 Dec.

You can now send your innovation that has not been successful yet carries potential!

Here’s a chance to teach your peers from Tata Sons what you learned from your failure!

Positive Positioning

Portrays attempts, not just successes, as innovations.

Note: Tata InnoVista is a groupwide program held annually to encourage, recognize and showcase outstanding innovations done by Tata companies across the globe.
Source: Adapted from Tata Sons

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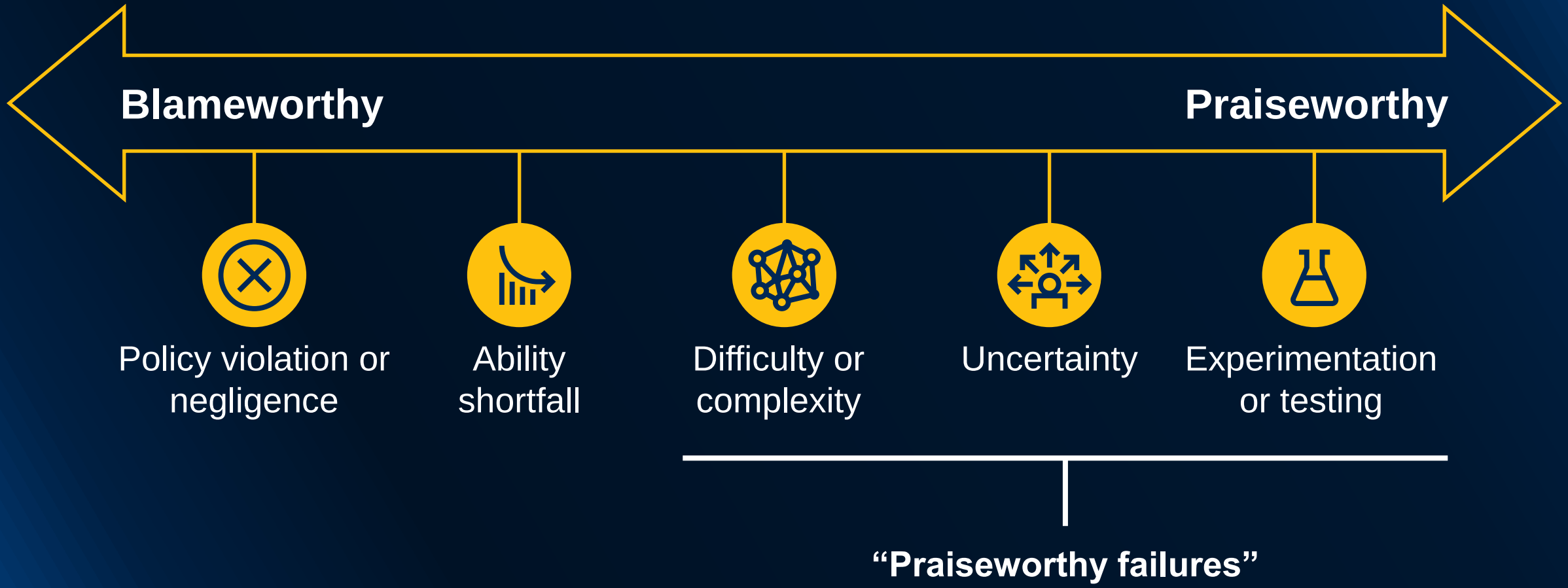

Source: Adapted from DIRECTV

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Which failures are worth sharing?

If you can answer “yes” to any of these questions, your learnings could be worth sharing:

- Did it result from trying something new, testing a hypothesis or exploring a new opportunity?
- Did it occur because you/the team did not anticipate changing circumstances?
- Did it stem from tackling a particularly complex task or collaborating with many or new stakeholders?

Source: Adapted from DIRECTV

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Set the Example

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Failure Story Template

Failure title _____

Introduction to the failure
What were you trying to accomplish?

How you recovered
What did you do when you realized you had failed? What do you do differently now?

Details to the failure
What went wrong? Why?

Lesson learned
What advice would you give someone who wants to try a similar thing?

Learn

Teach

Apply

Source: Adapted from DIRECTV

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5 Tactics to Create a Resilient Cyber Workforce

1. **Build self-care into employee workflows.**
2. **Treat resilience like A true competency — help people build it!**
3. **Redesign work to reduce burnout.**

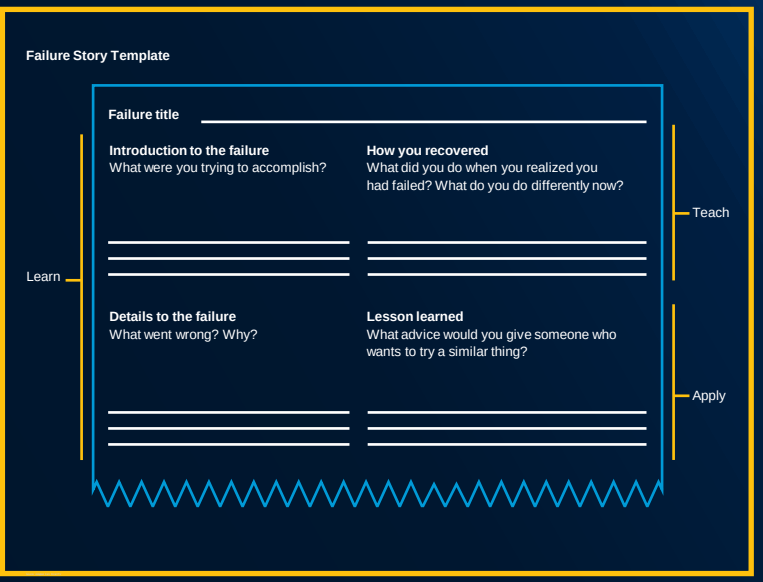
Give employees three resilience-building support mechanisms.

We have worked

0 0 0 3 days

Without a learning opportunity

Invert the event-free clock.



Share failure/learning stories!

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