

Top Strategic Technology Trends in Software Engineering — Delivering Value to the Business

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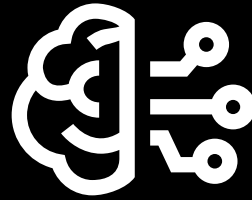


Meeting Business Objectives is a **Top Priority**

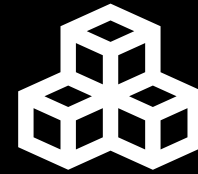
What Should **You** Do?



**Developer
Enablement**



**AI-Augmented
Software Engineering**



**Scaling Software
Development**



Developer Enablement



AI-Augmented Software Engineering



Scaling Software Development



InnerSource



AI-Augmented Software Engineering Teams



Platform Engineering



Developer Experience



AI-Empowered Applications



Digital Immune System

Gartner's Top Strategic Technology Trends in Software Engineering

Developer Enablement



InnerSource



Developer Experience

AI-Augmented Software Engineering



AI-Augmented Software Engineering Teams



AI-Empowered Applications

Scaling Software Development



Platform Engineering



Digital Immune System

Developer Enablement



InnerSource



Developer Experience

AI-Augmented Software Engineering



AI-Augmented Software Engineering Teams



AI-Empowered Applications

Scaling Software Development

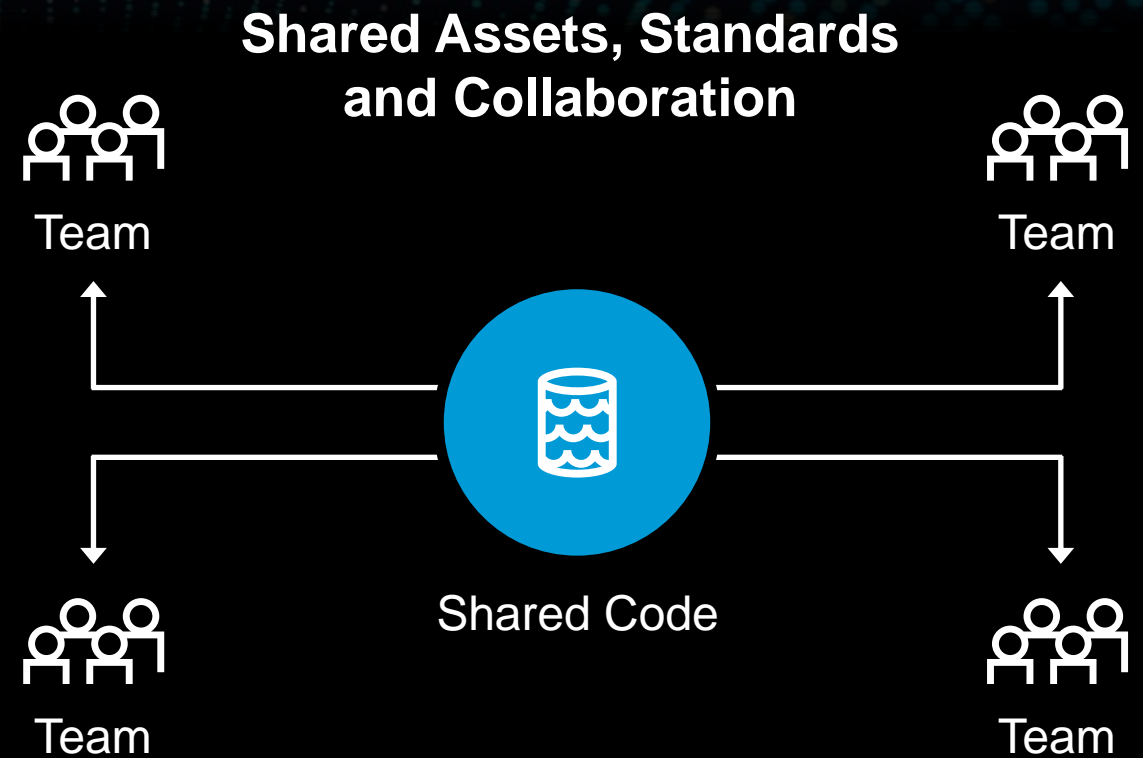


Platform Engineering



Digital Immune System

InnerSource





- Promotes Code Reuse
- Drives Rapid Development
- Simplifies Collaboration
- Increasing Clarity
- Encourages Culture of Openness
- Reinforces Pride in Product



Comcast

Open-Source Program Office

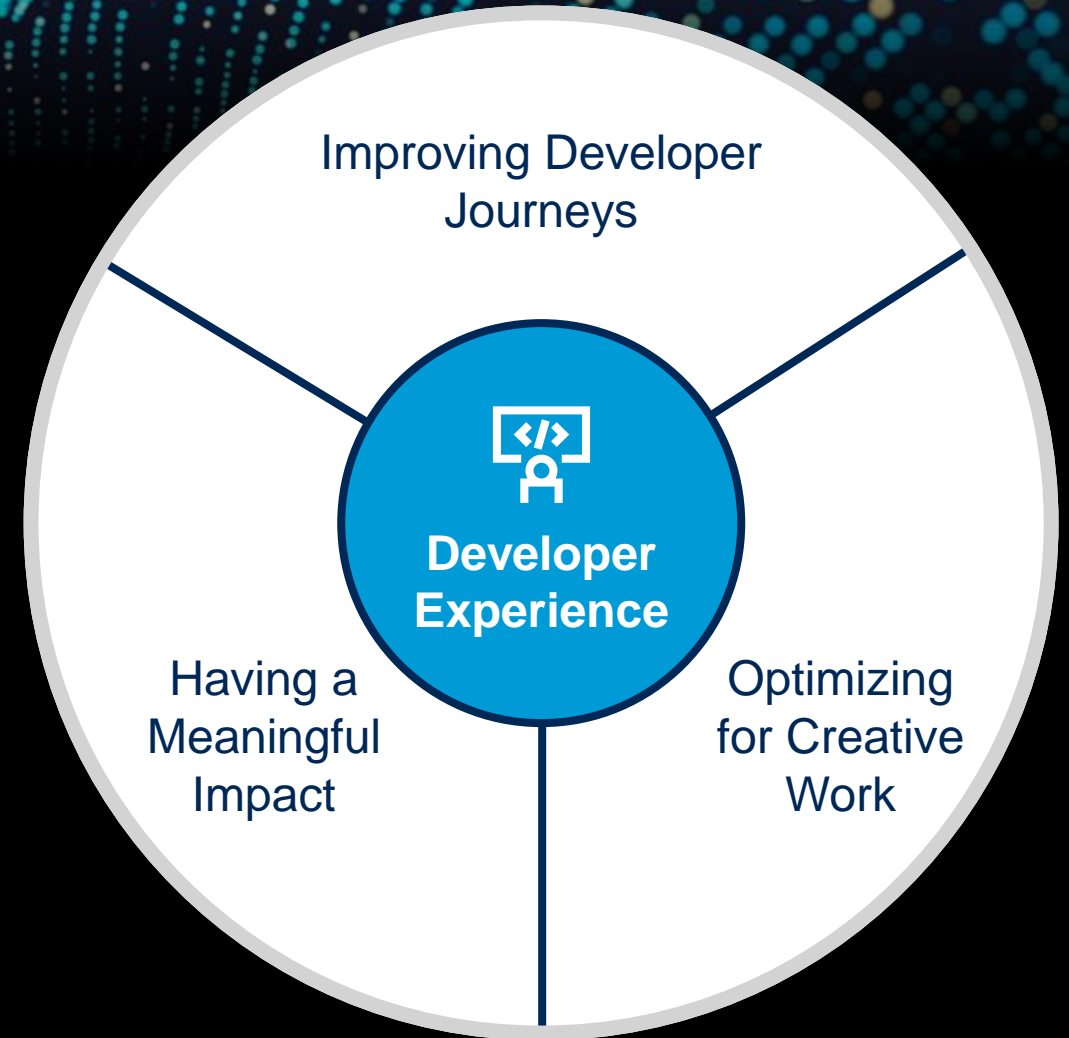


Promoting Open-Source Contribution

Fannie Mae



Developer Experience



Developer Experience

- Streamlined onboarding experience
- Self-service DevOps workflows
- Collaborative work environment
- Focus time to do deep work
- Freedom to fail and experiment
- Contributing to the wider community



Developer Experience

Hargreaves Lansdown Developer Experience Program



DevOps Toolchain as a product LexisNexis



Developer Enablement



InnerSource



Developer Experience

AI-Augmented Software Engineering



AI-Augmented Software Engineering Teams



AI-Empowered Applications

Scaling Software Development

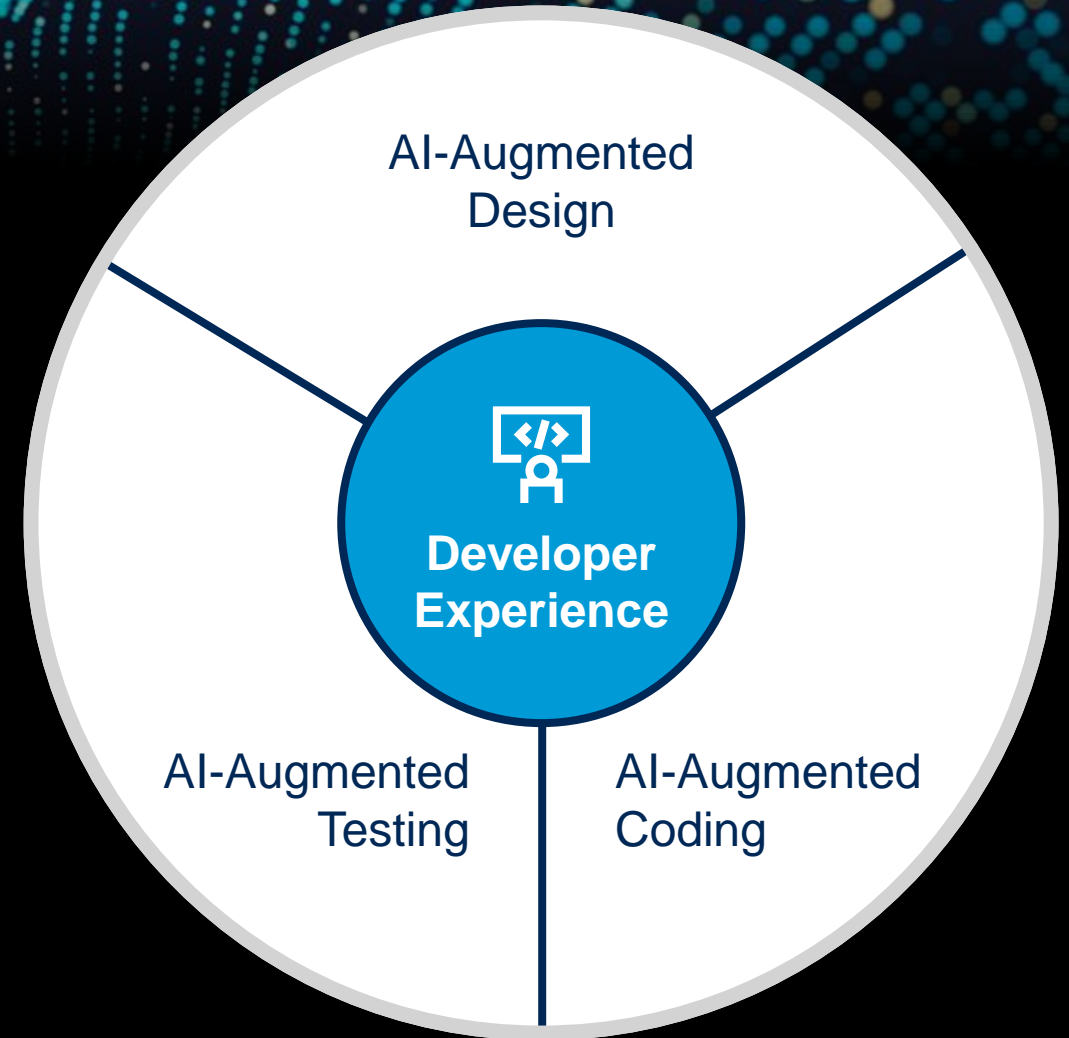


Platform Engineering



Digital Immune System

AI-Augmented Software Engineering Teams



AI-Augmented Design

- Brand consistency
- Usability
- Accessibility
- Productivity



AI-Augmented Coding

Use Cases

- Accelerated Software Development
- Program Exploration

Benefits

- Increased Developer Productivity
- Increased Developer Satisfaction

Risks

- Copyrights and Intellectual Property
- Unsecure Code



🔗 AI-Augmented Testing

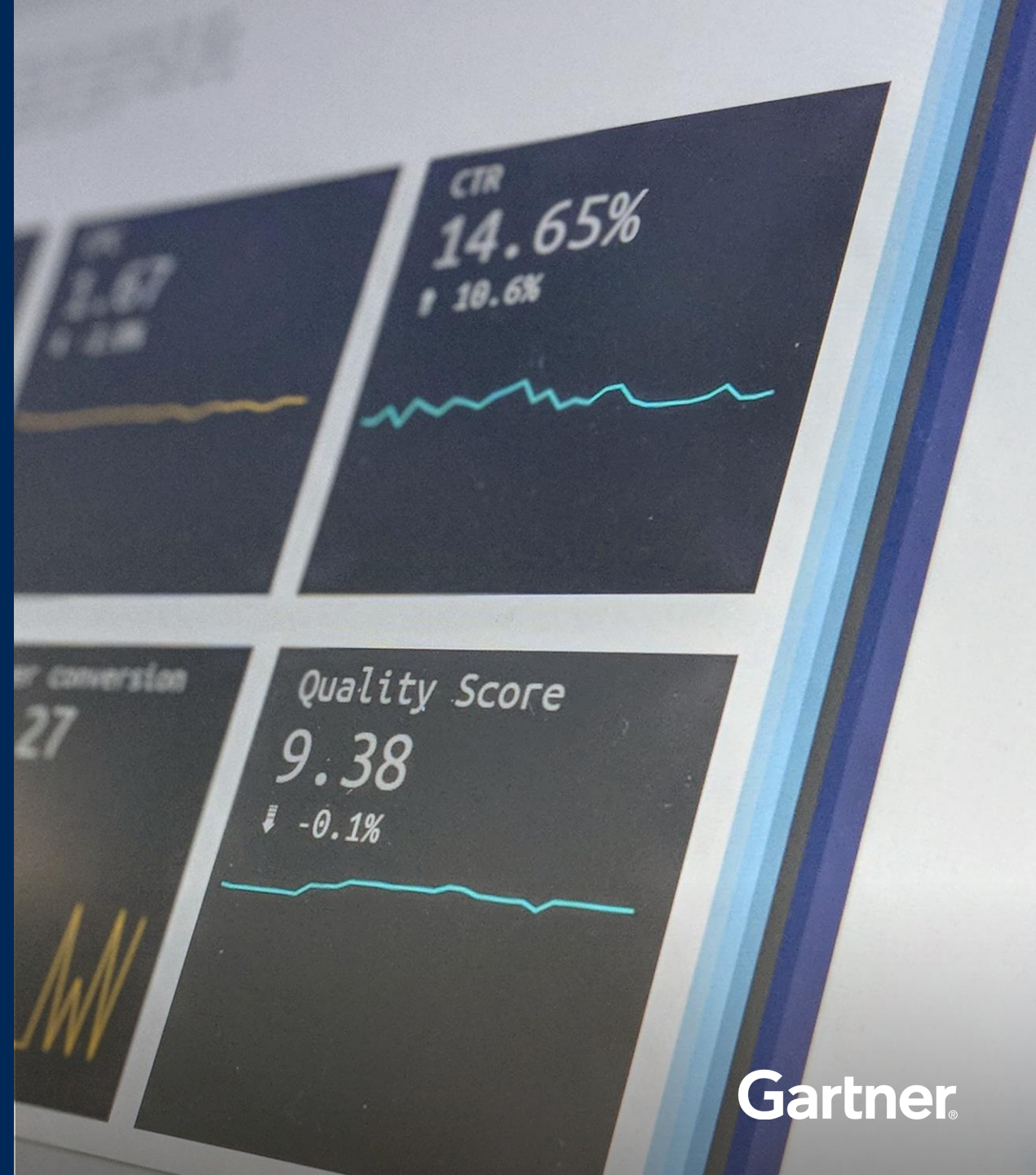
Test Planning and Test Prioritization

- Intelligent Test Selection
- Test Set Optimization

Test Creation and Maintenance

- Manual Test Conversion
- Self-Healing Tests

Visual Testing



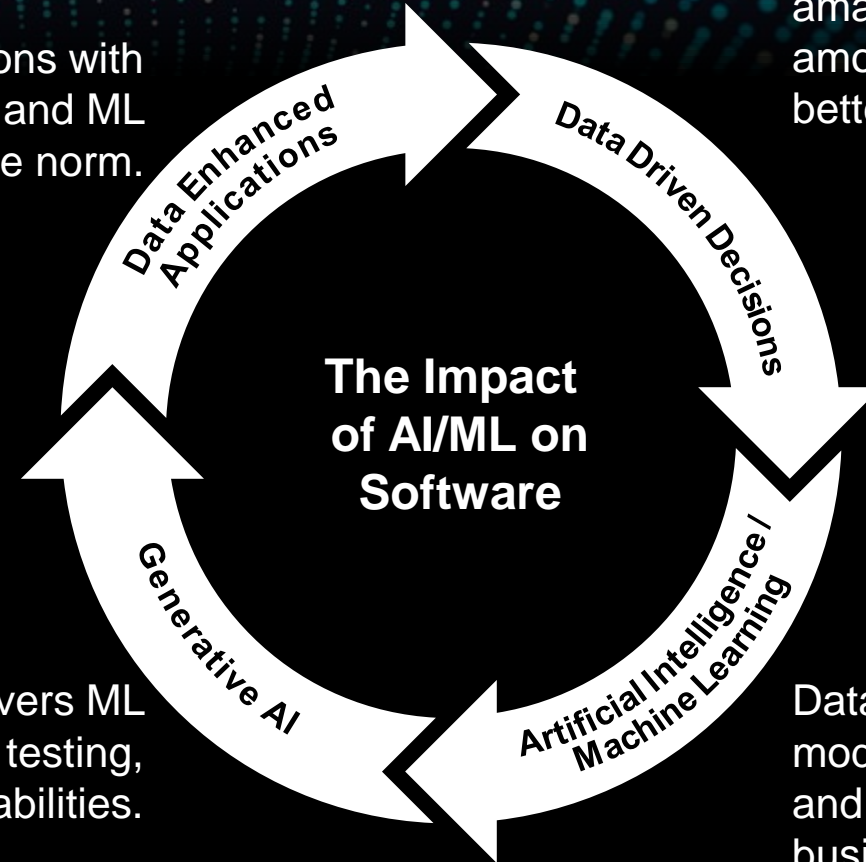
AI-Empowered Applications

Applications with embedded AI and ML models become the norm.

Enterprises are amassing a vast amount of data-enabling better decisions.

Generative AI delivers ML generated coding and testing, design to code capabilities.

Data enables AI/ML models to automate and improve business processes.



ML = Machine learning

AI-Empowered Applications

Benefits

- Enrich the information available in enterprise applications
- Automate workflows
- Build models that assess risk or recommend next best actions

What You Need to Do

- Treat AI model development differently from application development
- Coordinate activities between development and model-building teams



AI-Empowered Applications

Fidelity

AI Model Operations at Scale



- Doubled its speed of AI model to production
- Reduced time to find and resolve issues by 80%
- Rationalized AI model portfolio

Developer Enablement



InnerSource



Developer Experience

AI-Augmented Software Engineering



AI-Augmented Software Engineering Teams



AI-Empowered Applications

Scaling Software Development

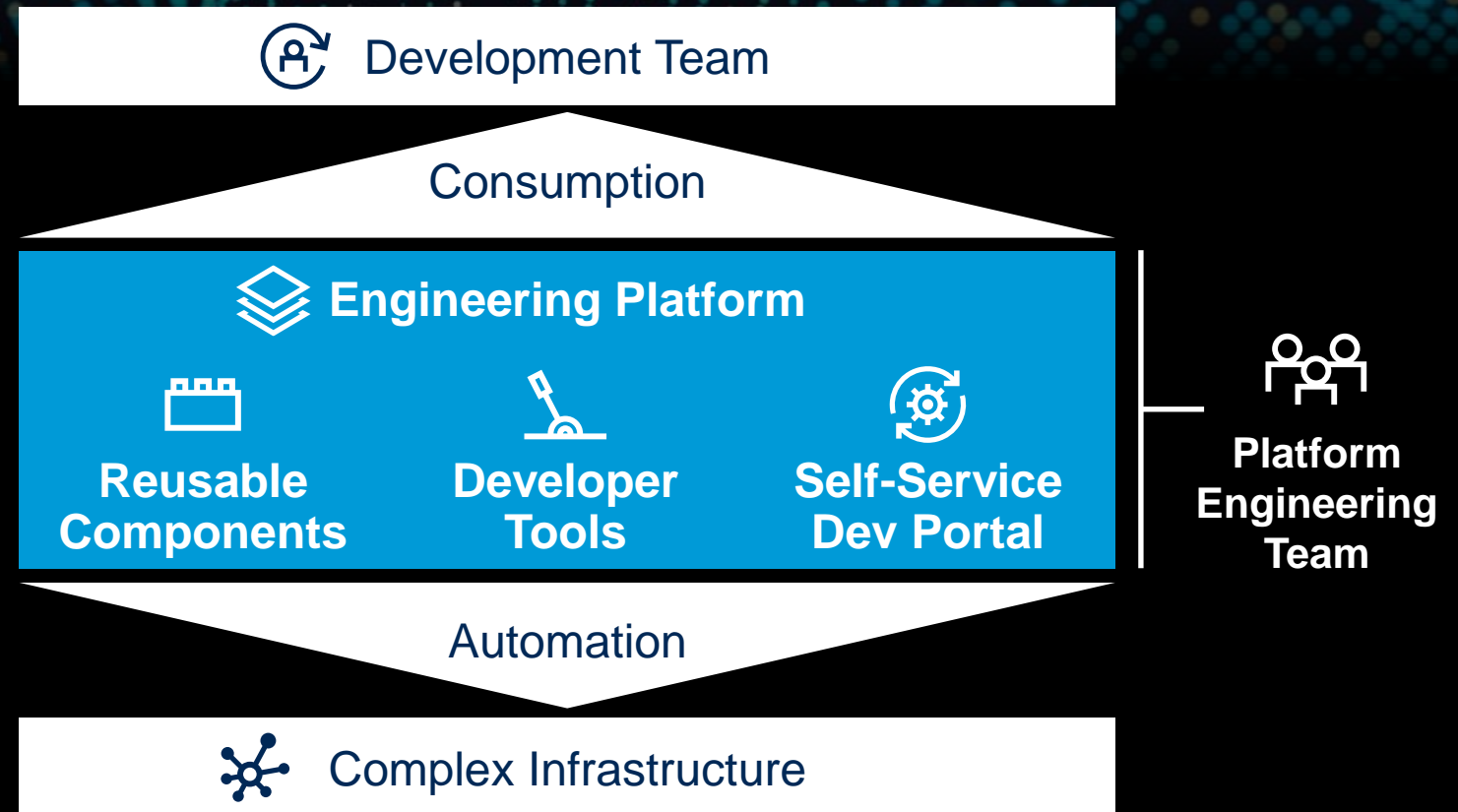


Platform Engineering



Digital Immune System

Platform Engineering



Dev = Development

Platform Engineering

- Enables developer self-service
 - Improves user experience
 - Increases Consistency
-
- Treat as a product
 - Offer as a shared service
 - Standardization isn't the primary goal



Platform Engineering

Politiet

Rapid Product Innovation

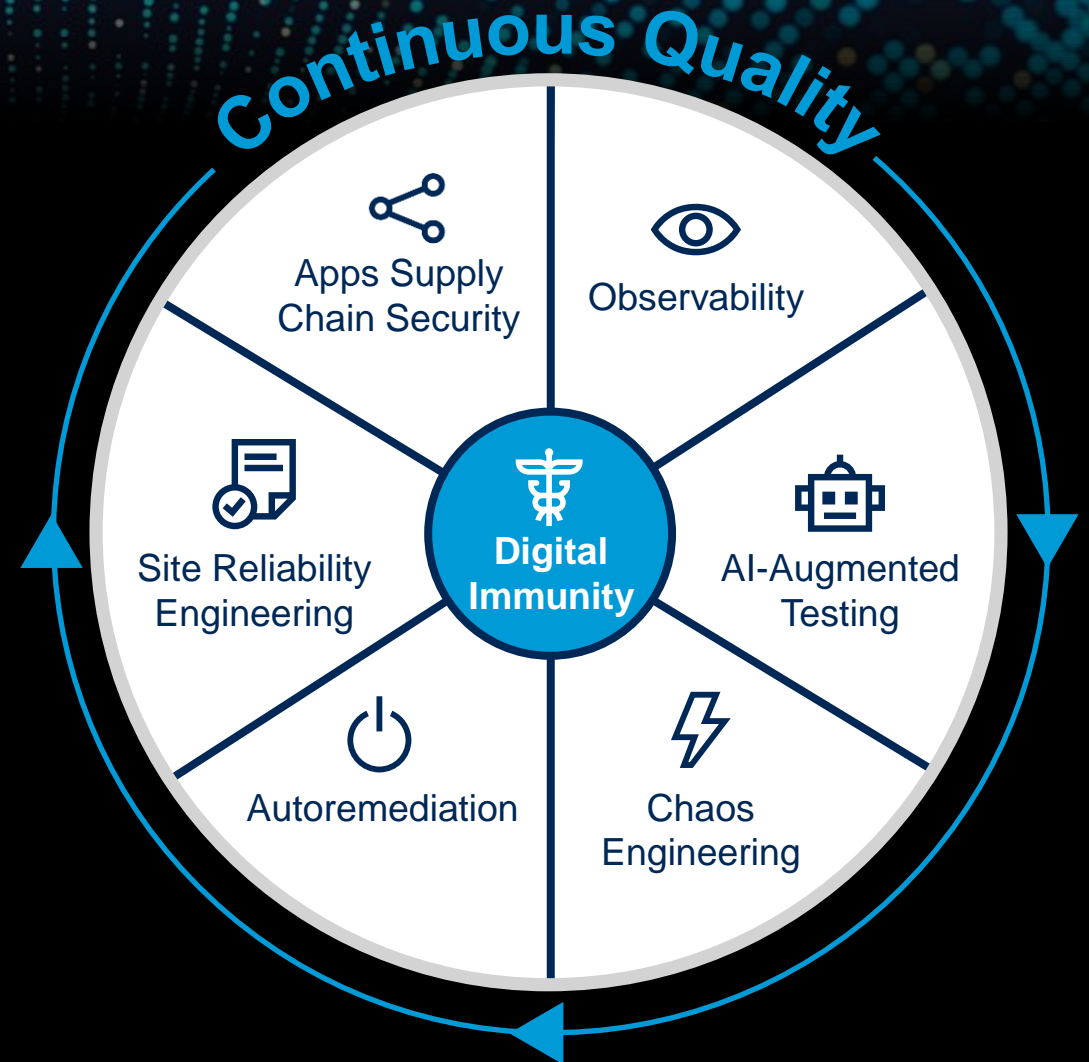


Standardized Common Activities

adidas



Digital Immune System



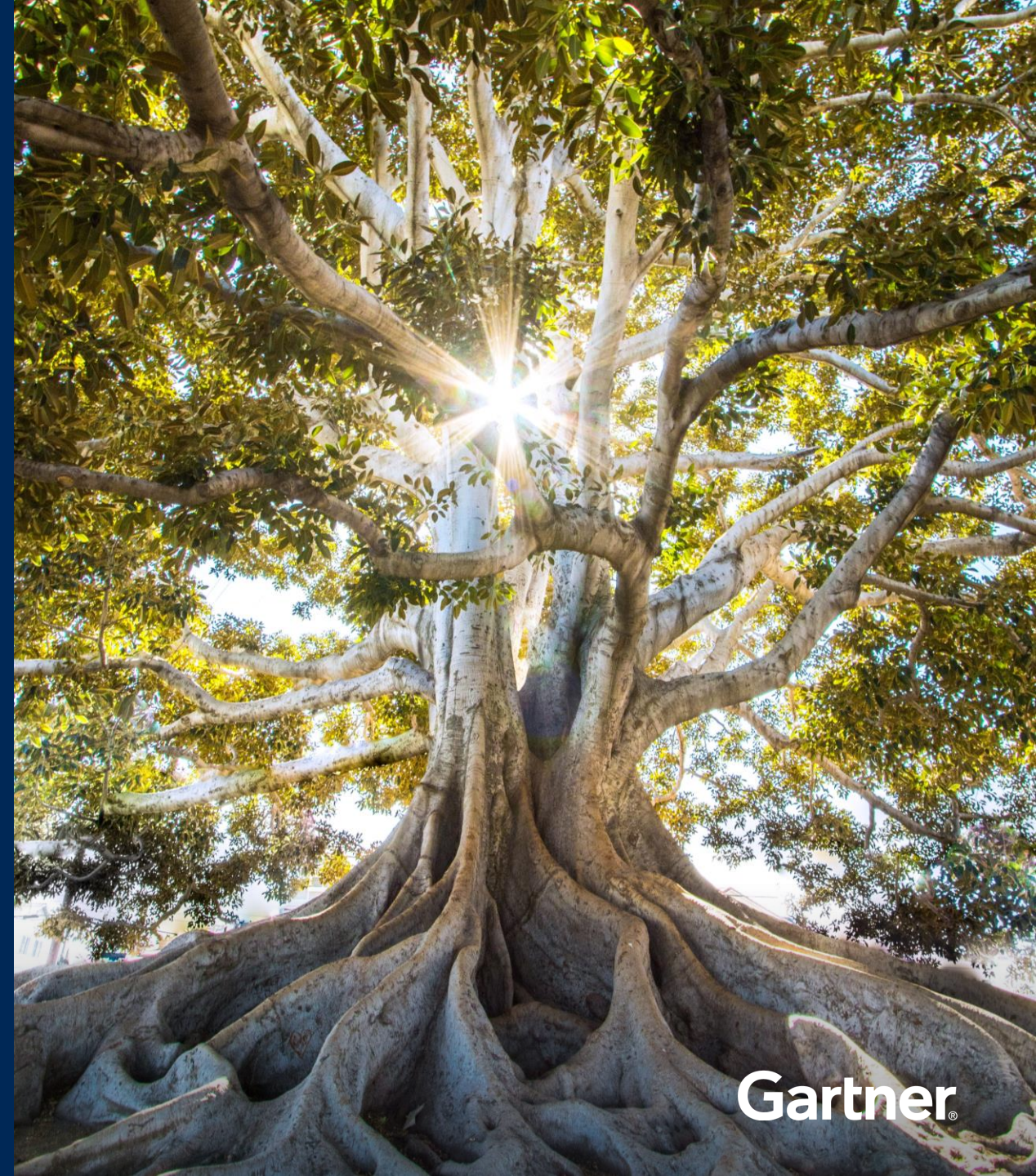
Digital Immune System

Vision

- Fostering a Quality Culture
- Embracing Failure
- Continuous Improvement

Driving Change

- Ecosystem-Centric View of Quality
- Infusing Quality in Every Step
- Building the Skills Needed



⚕️ Digital Immune System

American Airlines

Increased Operations Resilience



Dual Shift Digital Immunity Approach

Healthfirst



Gartner's Top Strategic Technology Trends in Software Engineering

Developer Enablement



InnerSource



Developer Experience

AI-Augmented Software Engineering



AI-Augmented Software Engineering Teams



AI-Empowered Applications

Scaling Software Development



Platform Engineering



Digital Immune System

Meet Business Objectives

Create Secure
Foundations

Maximize Value
From Data

Protect and Grow
Your Brand

Grow
Revenue

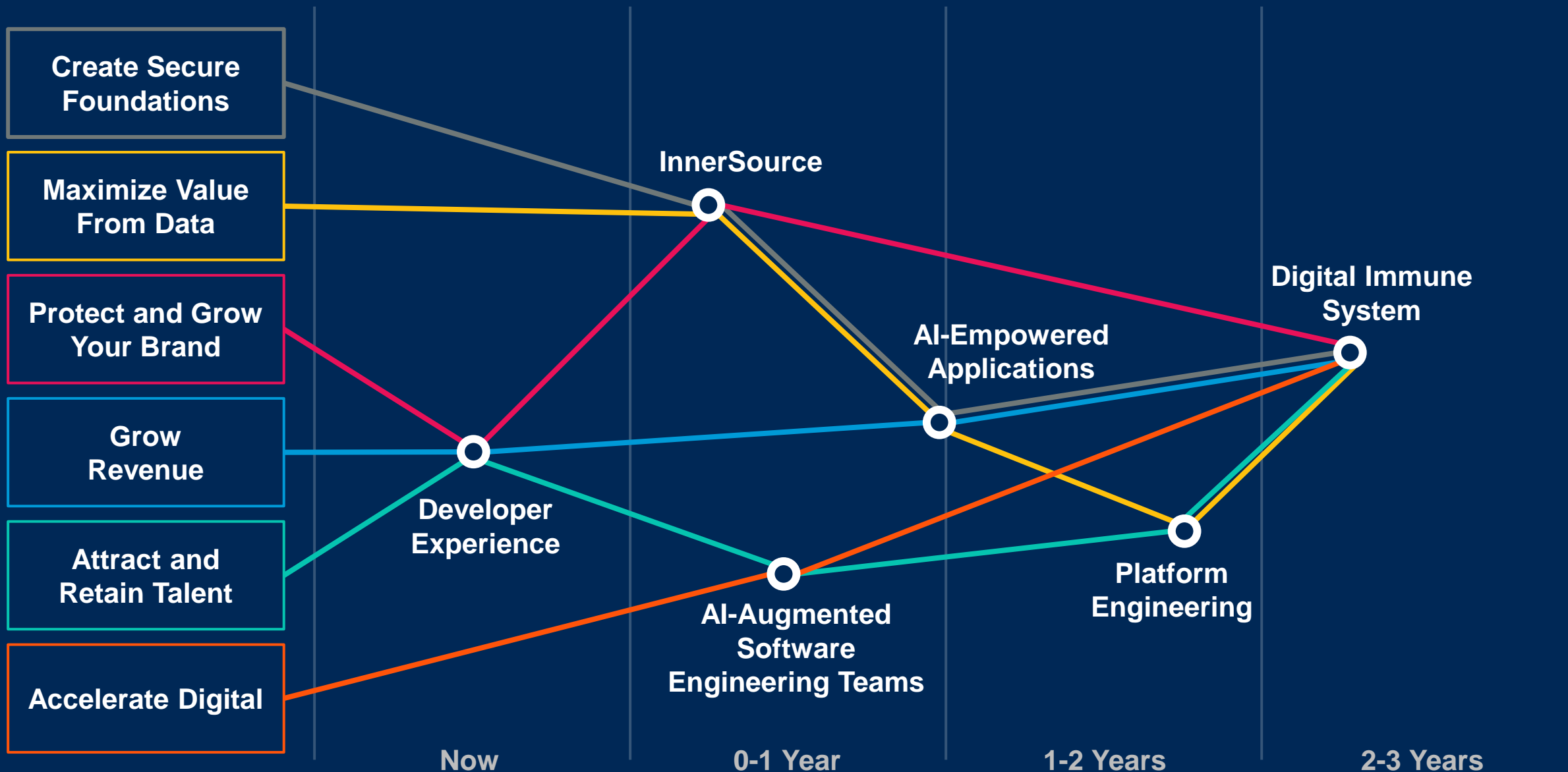
Attract and
Retain Talent

Accelerate Digital

Focus



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Gartner's Top Strategic Technology Trends in Software Engineering

Developer Enablement



InnerSource



Developer Experience

AI-Augmented Software Engineering



AI-Augmented Software Engineering Teams



AI-Empowered Applications

Scaling Software Development



Platform Engineering



Digital Immune System

Recommended Gartner Research

- 🔍 [A Software Engineering Leader's Guide to Improving Developer Experience](#)
Manjunath Bhat, Mark O'Neill, Arun Batchu and Akis Sklavounakis
- 🔍 [The Impact of AI and ML on Software Engineering](#)
Van Baker and Anthony Mullen
- 🔍 [Top Strategic Technology Trends for 2023: Platform Engineering](#)
Paul Delory and Oleksandr Matvitskyy
- 🔍 [Top Strategic Technology Trends for 2023: Digital Immune System](#)
Joachim Herschmann, Jim Scheibmeir and Others