

Building a World-Class Software Organization

Plot your path with this strategic roadmap.



Transforming your software engineering organization

For the software engineering organization to deliver value to business stakeholders and customers, its leaders need to:

- Focus on creating and measuring business value, not technical outputs
- Be obsessed with design and quality to exceed customer expectations
- Attract, retain and develop the right software engineering talent

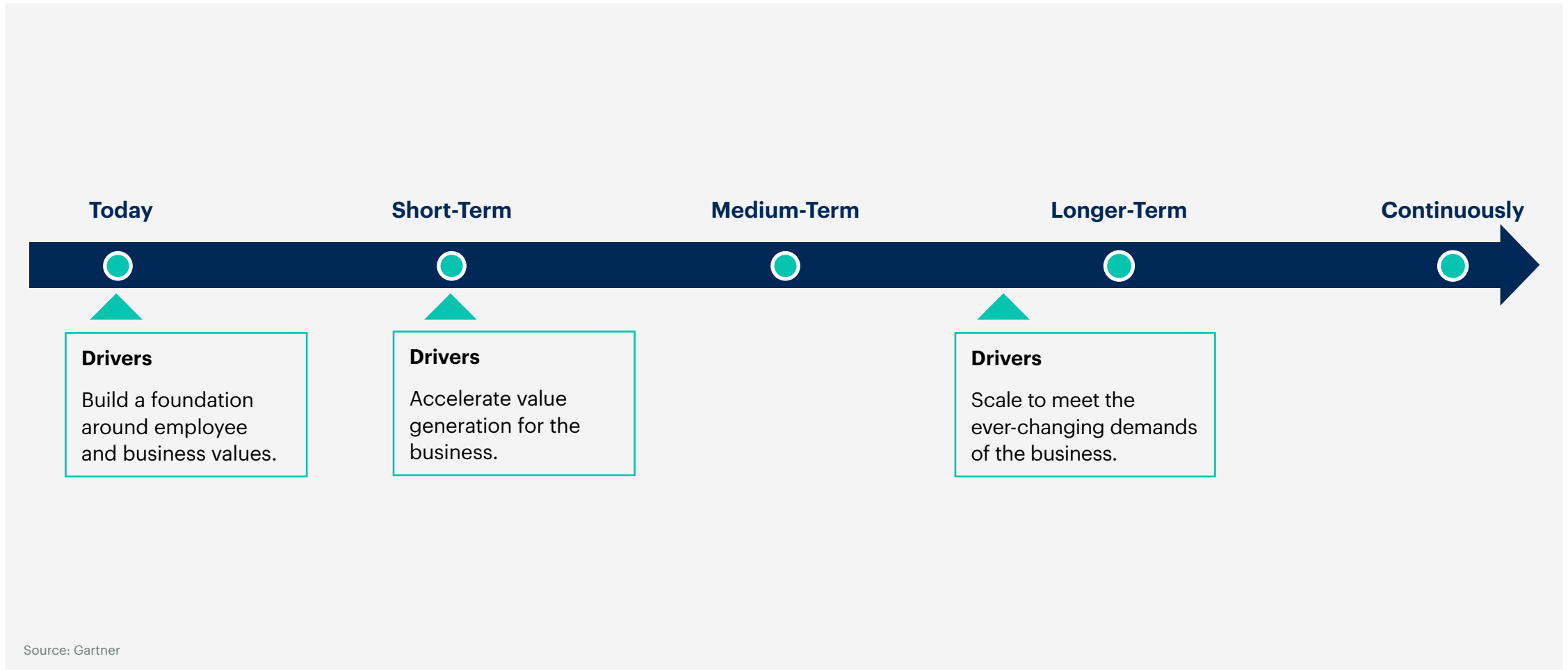
Use this strategic roadmap to mature your organization into one that can deliver the digital products and services that customers expect and the business needs to drive digital transformation.

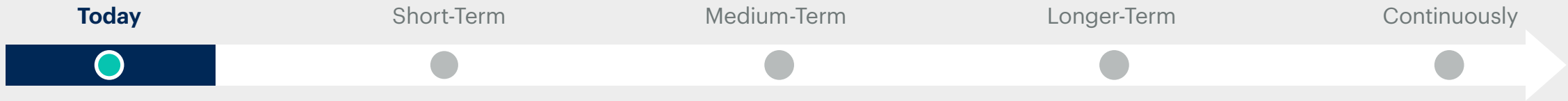
- Already a client?
Get access to the extensive roadmap and even more resources in your client portal. [Log In](#)



A world-class software engineering organization delivers digital products, services and experiences that customers love and the business can't do without.

3 key drivers of success over time





Today's Priority

Build a foundation around employee and business values

The first priority should be to build a solid foundation for your software organization, establishing your culture and priorities to attract and retain talent, align work to business priorities and meet UX and quality expectations. Job No. 1, given the fierce competition for great software engineers, is to inspire the talent already inside your organization.

Key Actions

1

Define a compelling employee value proposition (EVP) for developers beyond compensation and benefits.

2

Gain the trust of business leaders by being transparent in forecasting product costs and delivery times so plans and priorities are well-known and understood.

3

Reduce time to market without sacrificing quality by using continuous quality strategies.

Sample Action

Define a compelling developer experience

To become a magnet for talent, tailor the EVP to attract engineers who want to work on interesting products using modern technologies and advanced practices.

A compelling EVP is a significant advantage in the fierce competition for talent.



Rewards

- Competitive compensation
- Great benefits



Opportunity

- Exciting development opportunities
- Clear career paths
- Stability



Organization

- Great employer brand
- Diverse, equitable and inclusive teams
- Autonomy

Source: Gartner



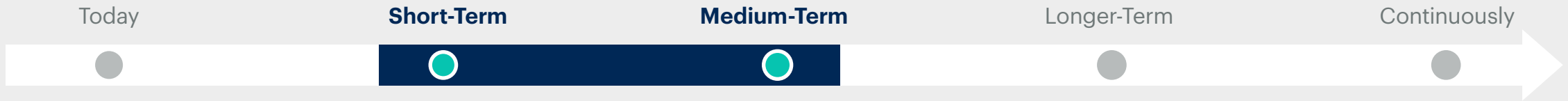
People

- Respectful and trusting management
- Psychologically safe environment
- Great colleagues



Work

- Work-life harmony
- Hybrid work
- Modern technologies
- Frictionless software engineering experience
- Purpose (pride in product)



Short- to Medium-Term Priority

Accelerate value generation for the business

The short-term priority is to accelerate value generation by aligning your team around what really matters. This means tackling challenges such as your team’s inability to focus on business priorities because they are distracted by urgent or critical requests.

Key Actions

- 1** Speed product delivery by building more **effective, diverse, autonomous teams** and an environment that values and celebrates cognitive diversity and collaboration.
- 2** **Realign team metrics** based on value delivery to ensure software engineers focus on creating value, as well as delivering value faster.
- 3** **Embed and automate engineering standards** to decrease delivery risks, maintain the quality of new software solutions and ultimately reduce technical debt.

Sample Action

Track the trends that matter

To become a value generator for the business, move away from efficiency-focused, output-based metrics, such as number of defects, lines of code or bugs fixed per sprint, and define and measure the outcomes of digital technology initiatives in a way that reflects business goals.

Set the expectation that outcome-based, business-aligned metrics must be used across teams, products and processes.

9 Guiding Principles of Metrics



Use team or product metrics — do not measure individual performance.



Use metrics to gain confidence (but not certainty) that you will hit targets.



Use temporary metrics to identify and fix problems or constraints.



Use leading metrics to test hypotheses and lagging metrics to prove they worked.



Use outcome metrics over traditional output metrics.



Use metrics to drive improvement and value delivery, not to reward, punish or compare.



Visualize metrics using team boards, charts and trend lines to catalyze discussion and learning.

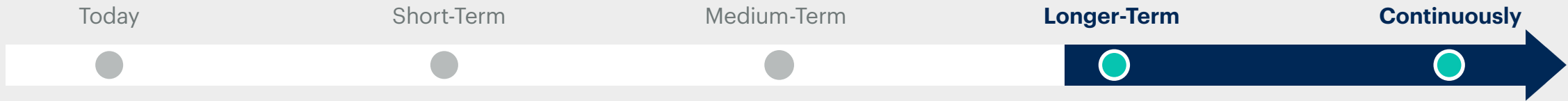


Use the primary measurement of success: business and customer value via working software.



Metrics drive behavior, so select and adapt metrics appropriate to the culture.

Source: Gartner



Longer-Term and Continuous Priority

Scale to meet the ever-changing demands of the business

Ultimately, your software engineering organization must be able to scale its efforts to meet the needs of the business and will need new ways of solving problems. For example, data-driven insights can help optimize product value delivery and adapt to changing customer needs.

Key Actions

- 1** Optimize the quality and delivery of digital products **by deepening UX collaboration with design systems.**
- 2** **Implement platform engineering** with leading technologies to free software engineering teams from the tasks associated with platform creation and maintenance.
- 3** **Build up digital immunity** to maintain your focus on continuous quality and UX.

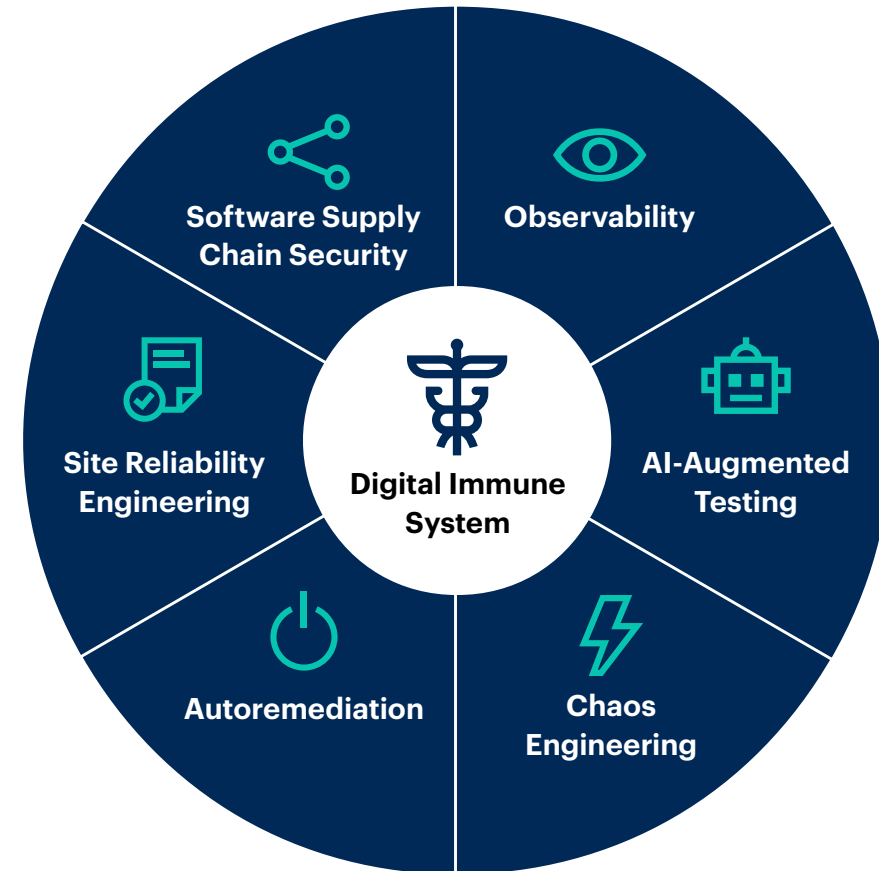
Sample Action

Build a digital immune system

Design and software quality are inextricably tied to a great UX. A software engineering team **obsessed with design and quality** will make sure to build a digital immune system that enables them to build secure, resilient, high-quality software that delights users.

- A healthy digital immune system protects the enterprise from business continuity risks that arise when critical applications and services are severely compromised or stop working altogether.

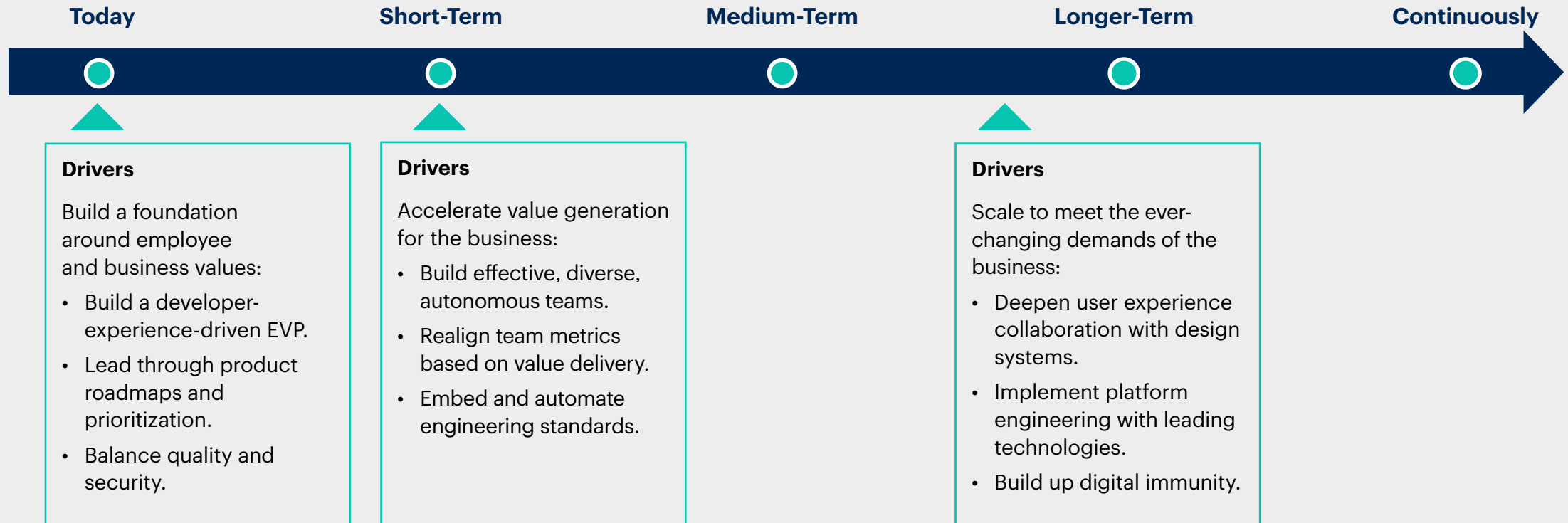
6 Elements of a Digital Immune System



Source: Gartner

Strategic Roadmap Timeline for Becoming a World-Class Software Engineering Organization

Migration Path Timeline



Source: Gartner

Actionable, objective insight

Explore these additional complimentary resources and tools for software engineering leaders:

Infographic



Six Value Stories to Communicate the Business Value of Software Engineering

Use value stories to demonstrate how software engineering initiatives drive high-priority business objectives.

[Download Now](#)

Webinar



Future of Work for Software Engineering and IT Agile Teams

Create a productive work environment to attract and retain top talent.

[Watch Now](#)

Infographic



Platforms and Tools to Scale the Delivery of High-Quality Software

Address the four software engineering needs to deliver high-quality outcomes.

[Download Now](#)

Conference



Gartner Application Innovation & Business Solutions Summit

Join a world-class community of Gartner application and software engineering experts and thousands of industry peers from across every industry.

[View Calendar](#)

○ Already a client?

Get access to the extensive roadmap and even more resources in your client portal. [Log In](#)

Connect With Us

Get actionable, objective insight to deliver on your mission-critical priorities. Our expert guidance and tools enable faster, smarter decisions and stronger performance. Contact us to become a client:

U.S.: 1 855 811 7593

International: +44 (0) 3330 607 044

[Become a Client](#)

**Learn more about Gartner for Information
Technology Executives**

gartner.com/en/information-technology

Stay connected to the latest insights

