



5 steps to building strategic, scalable testing teams





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INTRODUCTION

Whether your organization is using a waterfall or Agile development methodology (or a combination of both), or transitioning to DevOps, “shifting left” to move testing earlier in the development cycle results in higher-quality software at lower costs. What’s usually unspoken about this shift left is the need for teams — from idea to production, including development, quality assurance, security, release, and delivery — to collaborate more closely throughout the development cycle.

This white paper walks you through some of the key considerations for building collaboration into your testing strategy and concludes with a checklist to help guide your efforts.





STEP 1: DEFINE QA SUCCESS WITHIN YOUR BUSINESS CONTEXT

Identifying what success looks like for your business helps inform what skills, staffing, and other capabilities your team needs.

Today every business is a software business, which means that teams who develop, test, and deliver software must tie their goals and KPIs to those of the business itself. Those business goals are likely couched in terms of user growth, increased adoption, customer retention, revenue, or profit. Business goals, in turn, are translated into more digestible requirements for the product or application you're testing.

Here's an example of how business goals may influence test and QA requirements:

- A business goal of **user growth** may require new product features such as a more elegant user onboarding experience or an organic way for existing users to invite their team to use the product. These new features may translate to more visual, cross-browser, and exploratory testing across invitation, outreach, and sign-up flows.
- A business goal to increase **customer retention** may require improved speed and security, as well as telemetry to better monitor product usage. This points to an increased need for performance testing, security testing, and data integrity.

In either case, the business goals influence the product feature and, in turn, the testing goals and risk tolerance for different areas of the product.

Key takeaway: Software is critical to growing a competitive business. Identifying test strategies and metrics that support the business helps inform the additional skills, knowledge, and training that your team needs.



STEP 2: ASSESS HOW YOU WILL GROW THE TEAM

Changes usually start small with an initial, enthusiastic project team, but over time you'll need to home in on how to hire for, train, and scale specialized knowledge.

Once you have established that your individual team goals are in line with the larger business goals, it is critical to take stock of the knowledge and talent within your team so you can make the right investments to support those goals. Fast-moving trends like test automation and DevOps mean that the skills your testing and QA team have today will likely evolve on a continual basis.

Here are a few questions to ask yourself as you look at the team and how it needs to evolve:

- **Will our quality organization work in a centralized, distributed, or hybrid model?** Leaders in continuous testing tend to work in a fully centralized or hybrid center of excellence (CoE) model to scale best practices across the organization.¹
- **Do we have the specialized technical skills to support our pilot projects? How will we train, hire, or otherwise scale these skills going forward?** For example, as teams shift increasingly towards DevOps and its reliance on CI/CD automation, automated testing skills become more important. Additional skillsets may include knowledge with specific proprietary or open-source tools, or a software engineering background.
- **What other skills will we need to grow within the organization?** Engineering teams are more than a source of technical skills — the ability to train other team members, lead specific efforts, or work collaboratively with other teams should also be considered.

Key takeaway: Most organizations today are continually evolving their testing capabilities to get ahead of market needs, either through hiring or targeted training. Specialized, technical skills like automation engineering within a specific tool or framework should be considered alongside softer skills like leadership, collaboration, and decision-making to ensure that your team can support its initial goals and mature to support the business at large.

¹ Business value of investing in testing, Forrester Consulting research, September 2021



STEP 3: REFINE YOUR STACK AND TOOLCHAIN

Your team is the foundation for a successful QA practice, but the tools and solutions they use can either hinder or help.

While the approach your team takes to testing is key to making your testing strategy a success, the right tools and platforms can accelerate the teams' work by helping them collaborate and execute more efficiently. But the wrong tools can undermine your efforts. As you consider how to round out your tooling, here are a few factors to keep in mind:

- **Mix of open-source and commercial testing tools.** It's rare for organizations to work with exclusively one or the other, but either way, the choices you make will influence the cost of support, vendor management, and flexibility through integrations.
- **Required tooling or platform integrations.** Testing teams often use their test management solution as their system of record, including traceability to a requirements and defect tracking tool like Jira. Increased collaboration means that easy integrations with platforms used by other teams, such as GitHub for software development or Jenkins for CI/CD, are important as well.
- **Scope of test automation.** There is a huge range of specialized test automation tools available today, for everything ranging from unit tests to security, performance, APIs, accessibility, and more. Additionally, though organizations often look to increase test automation rates, very few tools successfully cover all testing requirements. Some manual or exploratory testing will generally be required as well.
- **Managed services vs self-managed options** (this may be framed as cloud versus on-premises in some cases). Many testing solutions are offered as a hosted service, often with greater security, reliability, and scalability than an in-house team may be able to provide. Managed services free up resources to pursue other valuable business problems. However, specific compliance or security requirements may push your selection towards purchasing self-managed solutions.
- **Standardization of best practices.** If your testing plans include replicating and scaling certain processes across the business, you need a test management tool that facilitates sharing and reuse of test assets across the organization.

Key takeaway: Businesses increasingly treat quality and testing as a shared responsibility across multiple teams, making seamless integrations between source code, requirements and defect tracking, and testing tools important. While support for testing and CI/CD automation is critical, consider how your organization will also account for manual, exploratory, and even shift-right testing (for example, through feature flags) within your test plan as well.



STEP 4: BUILD MOMENTUM AND CULTIVATE CHAMPIONS WITH EARLY WINS

Start small and build from there.

Implementing a strategic testing plan across a large organization can be daunting. Most organizations start with a proof-of-concept or a small team or project. However, these small projects have another impact: they can cement support from your earliest champions who can tout your first wins, leading to your second and third wins and beyond. These early champions and participants can also demonstrate best practices for other organizations to follow.

Here are a few criteria to keep in mind when selecting a first team and project for your strategic testing plan or transformation:

- **Executive and team support, and a project cheerleader.** An early project may not even be implemented unless the right leadership and team members are bought into the change in the first place.
- **Measurable outcomes.** Clearly demonstrating improvements in test quality or velocity is important for building momentum. However, if the team or project you're working is constantly making big changes in their approach or processes, it may be hard to attribute improvements to a new strategy you're trying to prove out.
- **Achievable within a short time frame.** Short time frames for initial wins help keep teams motivated, though your definition of a short time frame depends on your current practices. An organization practicing Agile development may prefer to implement changes over a handful of sprints, while a team using waterfall development may look at a sustained trend over a longer period of time.

Key takeaway: Early efforts at implementation aren't just a proof-of-concept to validate your new approach to testing. They're also an opportunity to identify and cultivate champions and new practices at every level of the organization, building momentum for further improvements across the organization.



STEP 5: MEASURE, EXPAND, AND OPTIMIZE

At this point, the careful planning and decisions you've made to align with the business, develop your team, refine your toolchain, and demonstrate early wins should set your organization up to expand testing improvements to other projects.

- **Capitalize on demonstrable, measurable improvements** from both your first projects and the next projects to which changes are being applied. Metrics such as cost improvements, risk reduction, or agility are key to justifying continued investment in implementing changes to your testing strategy.
- **Expand at a reasonable pace.** While your pilot project may have demonstrated the value of your improved approach to testing, scaling presents a different challenge. A phased plan for implementation across the business may take longer but provides the opportunity to learn and course-correct along the way, increasing the odds of success in scaling your changes.
- **Sustain organizational support for the initiative.** Executive sponsorship and visibility to leadership across the business are key to ensuring that your efforts sustain momentum as you scale.

Key takeaway: Build upon demonstrable, measurable improvements from your initial wins to expand testing improvements at a reasonable pace across the organization. Sustained support and interest across the business are also critical to maintaining momentum and scaling beyond your pilot projects.



CHECKLIST FOR BUILDING AND SCALING A STRATEGIC TESTING TEAM

Goals and alignment

- I am confident in the product or application strategy we are taking to reach our business goals
- We know which technical features we must build within our product to support business goals
- I know which teams (such as user experience, data and cloud engineering, or security) my team must be closely aligned with to deliver these new features
- My team, as well as my stakeholder teams, agree on the general strategy, goals, and metrics we will use for testing and quality assurance as we build these features

Talent and tooling

- We have the core set of technical skills within the team to implement our plan, or we have resources to hire for them
- We have identified soft skills, such as collaboration, planning, and leadership, we need to ensure that our quality team continues to mature and evolve in line with business needs
- We have the right testing tools and frameworks to address our needs across testing types, including automated, manual, and exploratory testing
- Our solutions have been selected in collaboration with our stakeholder teams for interoperability and ease of management
- Our tooling enables us to track the key metrics for our testing and QA efforts, and how they impact overall goals for the business

Implementing your strategic test plan

- Our pilot project can be completed in a reasonable amount of time and provide a good baseline of metrics against which to measure improvement
- We have support from leadership and at various levels of the organization as we establish early wins and expand testing improvements across the organization
- We have a phased plan for expansion, based on repeatable best practices and measurable goals aligned with the business

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ABOUT TRICENTIS

Tricentis is the global leader in enterprise continuous testing, widely credited for reinventing software testing and delivery for DevOps and agile environments. The Tricentis AI-based, continuous testing platform provides automated testing and real-time business risk insight across your DevOps pipeline. This enables enterprises to accelerate their digital transformation by dramatically increasing software release speed, reducing costs, and improving software quality. Tricentis has been widely recognized as the leader by all major industry analysts, including being named the leader in Gartner's Magic Quadrant five years in a row. Tricentis has more than 1,800 customers, including the largest brands in the world, such as Accenture, Coca-Cola, Nationwide Insurance, Allianz, Telstra, Dolby, RBS, and Zappos.

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