



# Testing Doesn't Have to Suck

*A Modernized Approach to the Testing Experience*

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Poor software quality cost U.S. companies approximately \$2.41 trillion in 2022 [1], with testing activities accounting for 50% of those costs[2]. Poor testing approaches contribute to delays, rework, resource inefficiency, and reduced productivity.

While various software testing methods exist (integration, acceptance, regression, smoke, performance, security, usability, etc.), a flawed approach will always undermine testing's value. This is particularly true as traditional testing methods shift towards speed and iteration, incorporating Agile and automation that prioritize bug detection and resolution. Strategically, methods that prioritize anything other than **business value and adoption** neglect core testing objectives.

**Modernized testing focuses on business value, generates a higher ROI, and accelerates change.**

The difference between traditional and modern testing strategies is one of **priority**. Traditional testing prioritized thoroughness and risk avoidance; modern testing prioritizes value for effort.

Traditional Testing	Modern Testing
Comprehensive test scenarios based on software functions or features	Test scenarios based on critical daily operations and prioritized by project objectives



Detects bugs and resolves them quicker	Identify, prioritize, and resolve gaps based on business readiness risks
Communication is top-down, generalized, and sporadic	Communication is targeted to the timeframe and resources required
Validates independent business or technology processes but neglects the human element	Emphasizes seamless continuity of day-to-day and critical operations with an intentional focus on people
Reports reflect the number of test cases, scenarios, and code-level test statuses	Reports discuss technical metrics and business process level test status, including business impacts
Training is not integrated with the testing timeline; it's executed independently	Training enhances testing, ensures business functionality & processes are understood and validated
Testing is conducted in silos or on an individual basis	Cross-functional teams actively test in a central space (digital or physical) to boost business readiness.
Does not include any conference room pilot activity	Pilot activity conducted to validate logistics

# A modern testing approach focuses on business value

The scope of testing should be carefully determined based on the significance of each function or process in achieving business objectives. This approach avoids allocating resources to edge cases and tasks with minimal impact.

This is not just a scope-limiting activity. In fact, the ideal approach looks at processes beyond the systems being impacted, to upstream and downstream elements. The idea here is that delivering value usually requires a sequence of steps and more than one system. Prioritizing value means ensuring process continuity and comprehensive business readiness across systems.



Done correctly, Boehm's study on value-based engineering testing suggests a potential 60% cost reduction, saving up to \$300 billion globally annually [2].

## A modern testing approach generates a higher ROI

The focus on value-centricity leads to a higher ROI by minimizing non-value-added activity, driving down cost, and optimizing resource allocation. Where a traditional approach would have testers working on infrequent or non impactful cases, a value-based approach has them looking at end-to-end scenarios that ensure business continuity.

### Benefit Drivers - Outcomes:

- **Business downtime:** Testing reduces a solution's downtime or rework effort, especially across integration (systematic or person-to-person).
- **Productivity:** Testing optimizes resource allocation by prioritizing tasks, manpower, and testing environments, ensuring maximum productivity and outcomes.

### Cost Drivers - Capital & Labor:

- **Capital investment:** When opting for automation and testing tools, it's essential to weigh the initial investment against long-term maintenance costs, ensuring that ongoing expenses are factored into the decision-making process.
- **Labor:** Person hours and related costs of developing and executing testing.

*“Value-neutral testing generated a lower ROI of 1.22 with 100% test execution, and value-based testing produced a higher ROI of 1.74 with the execution of about 40% of the most valuable test cases”*

- D Zhang [3]



## A modern testing approach accelerates change

Focusing on value and ROI plays a crucial role in facilitating change management. Positive attitudes toward testing increase morale & productivity, foster a supportive work environment, and reduce resistance to change.

Effective communication is crucial for driving adoption and ensuring successful implementation. Tailored messaging improves understanding by focusing on what is important to each person or group.

Messages include:

- **Convey strategy and roadmap**
  - What is in it for the tester?
  - How does this align with the greater goals of the organization?
  - What are the changes expected for each persona?
  - What does the sequence of testing activities look like?
- **Deliver program or testing status**
  - What is the current status of the program?
  - Are there any risks to business continuity?
  - Is there any downtime that needs accommodation?
- **Provide resources and support information**
  - Who or what can be referenced for help?
  - When and where will the training take place?
  - Are there any town hall meetings or surveys to convey feedback?

## Shift to a modernized testing approach in four steps

Modern testing must address a robust prioritization process and focus on people. Take these steps to move your organization towards a modernized



approach:

1. **Establish priority and testing scope:** Focus on critical processes that directly support project objectives and allow the business to operate without interruption. Ground your prioritization in data, like process metrics, to validate the materiality of each test case.
2. **Identify conflicts and risks:** Review other initiatives within your organization to identify and account for constraints or scheduling conflicts; prepare mitigation plans for risks that, if triggered, could significantly impact quality, schedule, or budget.
3. **Identify and communicate with stakeholders:** Identify stakeholders at all levels of the organization and clearly communicate each person's responsibilities and deliverables. Understand each stakeholder's perspective to tailor content and communication. Remove the friction to adoption and emphasize stickiness.
4. **Determine logistics and governance:** Establish a working environment that supports cross-functional collaboration and process-driven test execution. Determine which tools will be used for collaboration and test management. Define the escalation path and criticality criteria.

## The world is evolving; testing needs to keep up.

Modern testing, driven by value and stakeholder engagement, enhances ROI, operational efficiency, and risk management. By prioritizing key processes, involving stakeholders, and integrating with change management, companies achieve superior outcomes with fewer resources. This strategic adaptation is essential for thriving in a dynamic market.



**About us:** [mXa](#), on the 20+ year foundation of [Method360](#), was founded to intentionally serve fast-growth companies and the unique challenges they face. We understand that inorganic and organic growth provokes change, ambiguity, and uncertainty that can deeply burden the organizations involved. By seeking to understand the human element in M&A and fast growth environments, mXa embraces a unique, contrarian approach in advising clients that seeks to realize maximum value for them in alignment with business objectives.

**Interested in learning more about our capabilities or discussing your M&A or testing story? We're here to help.**

### Citations

1. [CISQ: Cost of Poor Quality in Software 2022](#)
2. Boehm B. W. "Value-Based Software Engineering: Overview and Agenda," in Value-Based Software Engineering, Biffi S., Aurum A., Boehm B., Erdogmus H., and Gru"nbacher P., Eds. Berlin, Heidelberg:Springer Berlin Heidelberg, 2006, pp. 3-14.
3. D. Zhang. "Machine Learning in Value-Based Software Test Data Generation," in 2006 18th IEEE International Conference on Tools with Artificial Intelligence (ICTAI'06), Nov. 2006, pp. 732-736.