

Quality as an Innovation Catalyst: Transforming Tech-QA Dynamics

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Abstract

Quality and speed are often positioned as competing priorities, creating organizational friction. At Formation Bio, we've found that integrating QA early rather than as end-stage gatekeepers transforms this dynamic. This session will demonstrate how technology and quality teams can collaboratively assess risk, streamline decision making, and build sustainable trust. We'll share how this partnership approach led us to develop a data-centric compliance tool that converts traditional assessments into structured, analyzable assets directly enabling faster, more confident releases. By repositioning quality as an innovation enabler rather than a bottleneck, technical leaders can drive meaningful organizational change. Attendees will gain practical strategies for fostering cross-functional alignment without adding process overhead.

Introduction

At Formation Bio, an AI-native pharmaceutical company, our mission is to bring new treatments to patients faster and more efficiently. However, we consistently observed a counterproductive pattern: technology teams would progress quickly through the evaluation, approval, and implementation phases, only to encounter Quality Assurance (QA) as a bottleneck at week 11 of a typical 12-week project timeline. This late-stage engagement led to project holds, wasted resources, compliance risks, damaging the relationship between tech and QA teams.

Research indicates that early QA integration can improve Software Development Lifecycle (SDLC) efficiencies by up to 50%. Despite this evidence, organizations keep deferring QA engagement until implementation is mostly complete. This paper examines why QA is perceived as slow and shows that this perception stems from process issues rather than QA capability. It then shows how Formation Bio transformed a 14-day compliance assessment into a 4-day assessment, achieving over 70% time reduction while also improving tech-QA collaboration.

The Problem

The typical system implementation follows a predictable project stage time allocation. For a 12 week project, weeks 1-4 involve system evaluation and planning, week 5 is when internal business approvals are secured, and weeks 6-10 represent active development, including substantial time and financial investments. QA engagement typically begins at week 11 for validation or compliance assessment.

At this phase, teams have already committed significant resources and established technical architecture. When QA identifies compliance gaps requiring fundamental changes, they may result in project delays, budget overruns, and mutual frustration. Technology teams begin to perceive QA as bottlenecks rather than partners, creating a self-reinforcing cycle where late engagement feels less time consuming than early collaboration.

This perception is understandable but wrong. QA delays stem not from the function itself, but from three specific failures: late timing of engagement, lack of tools for rapid assessment, and misaligned role structure where QA reviews decisions rather than informs them. The perception that "QA slows things down" becomes self-fulfilling as tech teams avoid early engagement, putting QA in a position to react to problems rather than prevent them.

Why the Perception is Wrong

QA is not inherently slow. The process of late-stage compliance assessment is slow. When QA is involved after architectural decisions are made, they must perform regulatory evaluations on systems already built or actively being built. This requires weeks of documentation review, gap analysis, and remediation planning.

Organizations attempting to solve this through superficial changes consistently fail. Including QA as observers in early meetings without giving them decision-making authority simply moves the bottleneck without addressing it. Replacing QA expertise with AI-generated assessments creates additional work when experts must review and correct outputs with limited time. Even early QA engagement fails if compliance assessment cycles remain weeks long because technical teams cannot wait for regulatory evaluation during fast-moving decision windows.

The real issue isn't QA's capability but how the process was designed. QA possesses the expertise to ensure compliant system selection and architecture early but what they lack are the tools, timing, and authority structure to apply that expertise when it could be most collaborative.

The Formation Bio Solution

Formation Bio's solution required addressing four distinct areas: Time, Technology, Iterations, and Role. This approach aligns with our broader vision of scaling with AI and technology rather than adding headcount.

Time: We integrated QA before business approvals rather than after, requiring QA to operate at decision-making speed. Data is acquired and analyzed early to give assurance in decision-making.

Technology: We developed an AI-powered compliance assessment tool that auto-completes compliance assessments, tackling manual, repetitive, and time-intensive tasks that should be fully automated. Unlike approaches that replace QA with AI, our tool accelerates QA work while maintaining expert oversight. The AI generates initial assessments that QA professionals review, refine, and approve.

Iterations: Streamlining the review process with structured data formats made revisions clearer and faster. QA's review and approval can now be completed without multiple meeting cycles.

Role: We shifted QA from reviewing decisions to informing them. QA provides guidance during decision-making while technical and business owners retain accountability. This shift proved critical as tech teams engaged more readily with QA rather than asking forgiveness.

Together, these changes reduced the compliance assessment time from 14 days to 4 days, over 70% faster. More significantly, technology teams began involving QA before rather than after making architectural and vendor decisions.

Leadership Decisions

This transformation required four critical leadership decisions. First, we invested in capability rather than headcount, building technology enabling existing QA staff to work faster. This reflected our principle that leaders first look at scaling factors and consider how AI can drive efficiency prior to seeking headcount.

Second, we made the tool mandatory for all systems. Voluntary adoption would have allowed teams continue with their previous engagement style or continue bypassing QA completely. Mandatory use transformed collaboration because technical teams could not avoid the process.

Third, we accepted early-stage imperfection. We committed to iterative improvement, allowing the tool to evolve based on usage.

Fourth, we established cross-functional ownership. QA owned tool development, but system and business owners became responsible for adoption and feedback. This prevented the initiative from being perceived as a QA project imposed on technology teams.

Results and Perception Shift

Post-implementation surveys of technology colleagues yielded 100% agreement that the AI tool made QA-tech collaboration "much more effective." One technology stakeholder noted: "QA is always available to brainstorm ideas and quickly iterate on current and future states and what to keep in mind while working with different kinds of data and use cases."

Another emphasized the cultural shift: "In other organizations I've been at, QA has chosen to act as a gatekeeper that creates work, and that posture builds resentment. At Formation, QA works as a partner, and that posture builds mutual respect and appreciation."

The perception that QA slows projects down shifted and teams now recognize that early QA engagement accelerates delivery by preventing time-consuming rework.

Lessons Learned

Three critical lessons emerged from this transformation:

AI still requires expert oversight. We continue spending time reviewing and refining AI-generated compliance assessments and the tool itself. The tool accelerates the process but does not replace expert judgment.

Resistance often signals real problems rather than change aversion. When technology teams avoided QA or complained about delays, they were responding to genuine friction in the process. Treating this feedback as valid rather than dismissing it as resistance enabled us to address root causes.

Fixing one bottleneck reveals the next. Accelerating our compliance assessments exposed delays in other quality processes. Continuous improvement requires accepting that transformation is a journey. Our learnings will continue over time.

Conclusion

Quality Assurance functions as either innovation bottleneck or catalyst depending on when and how organizations integrate QA into technical processes. Formation Bio's experience shows that the perception of QA as slow stems from systemic process failures, not QA capability. Transformation requires addressing timing, technology, iteration cycles, and roles simultaneously.

The 70% reduction in time for the compliance assessment shifted the technology teams' perspective of QA from being a bottleneck to a beneficial collaborator. This change demonstrated that QA can accelerate rather than impede innovation, ultimately supporting Formation Bio's mission of bringing new treatments to patients faster and more efficiently.

Contact Information

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