Calibration & Right to Repair: What It Means for Manufacturers

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Introduction: Rethinking Calibration Risks in a Right-to-Repair World

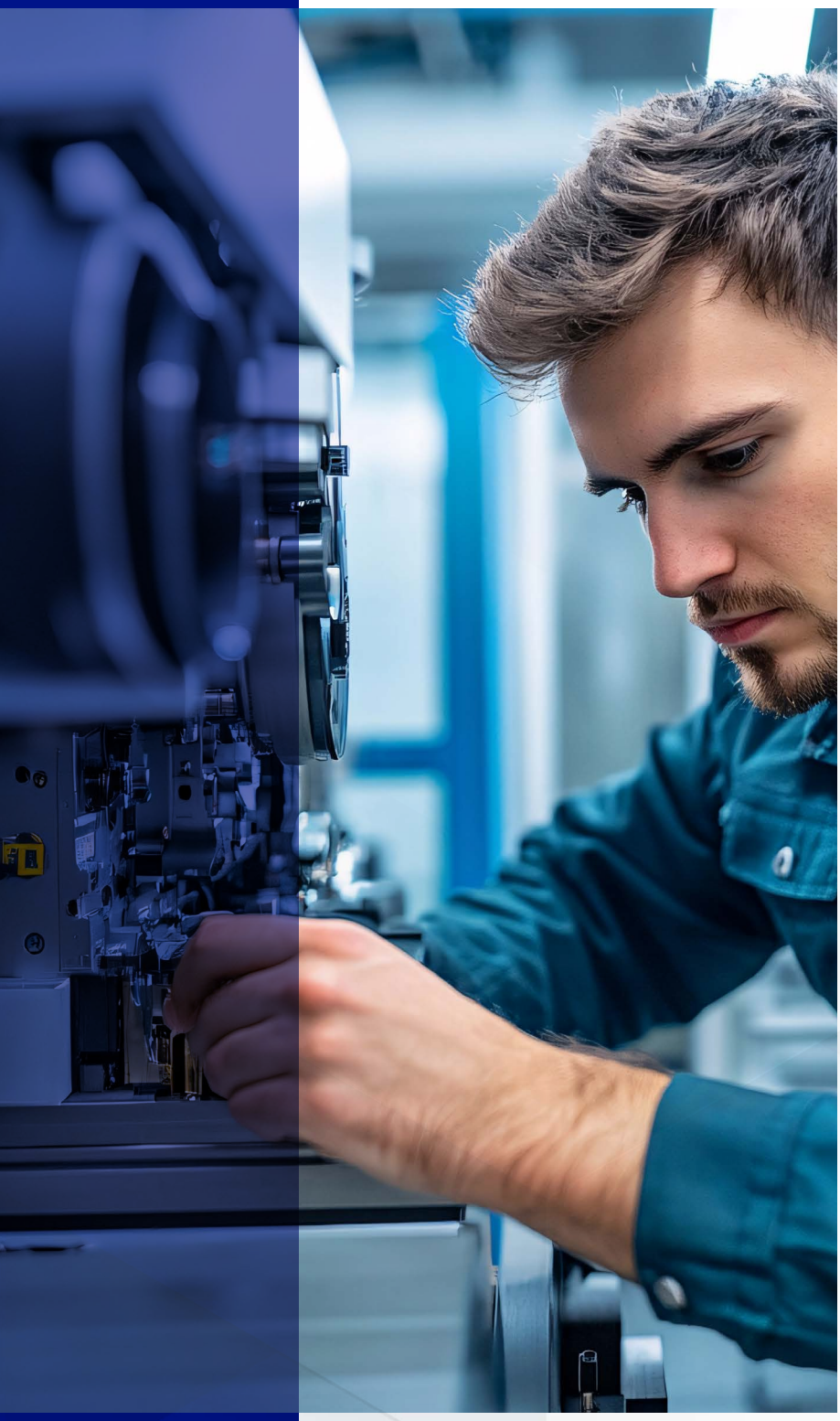
Calibration has become a strategic function and a growing point of risk, as many manufacturers are discovering that the ability to calibrate how and when they need to is slipping out of their control. With Right-to-Repair legislations gaining momentum across the U.S., OEMs are increasingly being required to comply by making repair resources available under fair and reasonable terms. This shift in the industry encourages overall transparency and aligns industry practices with customer protection goals

As right-to-repair legislation expands into industrial and scientific sectors, OEMs have responded by locking down calibration procedures, restricting documentation, and binding customers to rigid service contracts. This creates a collision between compliance requirements and service realities—one where even timely, traceable calibration can no longer be taken for granted.

In response, some manufacturers are moving away from OEM-only models in favor of accredited, multi-OEM partners. Others are reexamining service agreements, investing in digital tools like CERDAAC, and building internal escalation paths to detect bottlenecks before they become compliance gaps. Across the board, manufacturers are shifting focus, viewing calibration not as a maintenance task but as a core element of operational strategy.

This report explores that shift. Through interviews with SIMCO leaders, we'll explore how manufacturers navigate right-to-repair friction, what's at stake when calibration falls behind, and how the most resilient teams build smarter, more flexible programs—before audit pressure forces their hand.

Understanding the Right-to-Repair Landscape



Regulatory expectations have never been higher. Agencies like the FDA, FAA, and ISO accreditation bodies increasingly expect detailed calibration records, clear traceability, and adherence to defined intervals. But at the same time, OEMs are creating walled gardens around serviceability in an attempt to limit customer choice when it comes to servicing their equipment.

When an audit happens, it's the manufacturer, not the OEM, who has to produce the paperwork. And that's where the friction lies. Manufacturers are being squeezed between rising expectations and shrinking options. They're tied to OEM agreements that restrict access, slow down response times, and deprioritize the level of detail required for regulatory defense.

Customers should have the right to choose who services their equipment, based on their unique needs. And manufacturers are being forced to reevaluate not just their service partners but their calibration strategy overall. The question is no longer whether you have a contract in place—it's whether that contract still serves their compliance needs.

Next, we'll look at what happens when it doesn't.

The Calibration Bottleneck

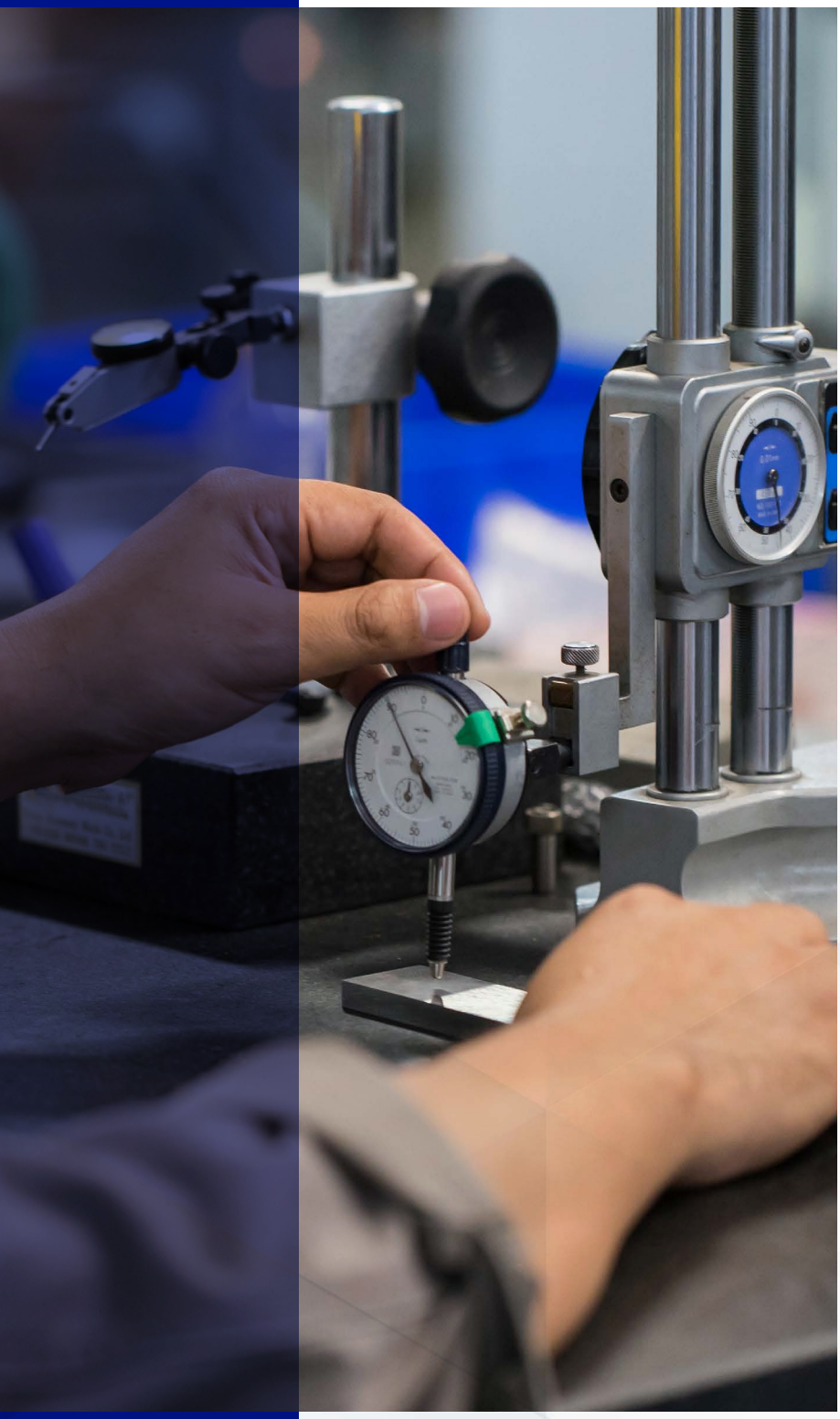
Many manufacturers now face service delays that exceed acceptable thresholds, as calibration remains tied to OEM-only agreements. They can't keep a regulated production line compliant when calibration takes over a month.

SIMCO routinely hears from organizations locked into 30- to 45-day OEM lead times—far too long for manufacturers managing tight production schedules and even tighter compliance windows. These delays force difficult choices: shut down lines, reroute production, or operate at risk of falling out of calibration—all of which come with costs.

And it's not just speed. It's what customers get back—or don't. "OEMs often return equipment with minimal documentation," said Dilip Advani, SIMCO's Chief Product Officer. "Sometimes it's just a pass/fail stamp. There's no as-found/as-left data, and there is no measurement uncertainty. That's a huge gap in an audit."

That kind of documentation shortfall leaves manufacturers vulnerable, especially under FDA 21 CFR Part 820, ISO 13485, or FAA regulations, where traceability and calibration history are required. Manufacturers can't prove that their instruments stayed in tolerance without a complete paper trail. They can't show what changed during the calibration process or explain the actions taken to bring equipment back into spec, if needed. They can't manage quality with blind spots.

The Regulatory Consequences of OEM-Only Service Models



In regulated manufacturing, calibration is a proof point. When documentation falls short or intervals lapse, the manufacturer is flagged, not the service provider.

“If an OEM can’t service equipment fast enough, or won’t provide full calibration data, that doesn't matter to an auditor,” said Brian Kenna, SIMCO’s CEO. “The manufacturer gets cited for non-compliance.”

OEMs aren’t answering to ISO auditors or facing FAA corrective action. The burden falls squarely on the organization using the equipment—even when it’s the OEM’s delays or documentation gaps that create the exposure.

Service models built around OEM exclusivity can become expensive liabilities; we all know how expensive it can be to take your car to the dealer for service, once it’s out of warranty. And many don’t calibrate to third-party standards like ISO/IEC 17025 or ANSI/NCSL Z540.1.

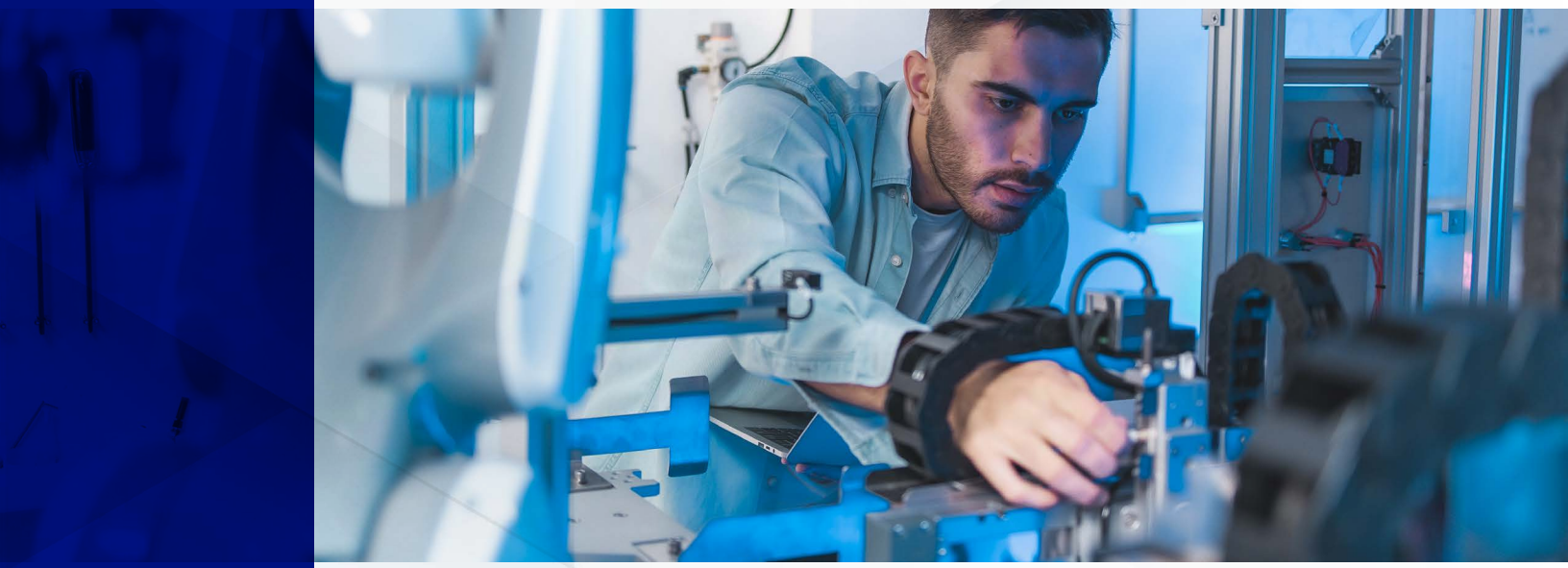
The risk created is cumulative. Missing data in one certificate might not trigger a finding, but a pattern of incomplete documentation or overdue calibrations will. Manufacturers who wait until audit day to spot calibration gaps usually learn the hard way.

What's at Stake for Manufacturers

When manufacturers lose the ability to control when and how calibration is done, the risks become systemic, cutting across production, compliance, and financial performance.

- **Unplanned Downtime:** When equipment sits idle waiting 30 to 45 days for OEM calibration, production stalls. In high-throughput or validated environments, downtime is costly and noncompliant.
- **Compliance Vulnerabilities:** Without timely service and complete calibration records, regulated manufacturers risk falling out of tolerance, missing audit windows, or failing to meet FDA or ISO documentation expectations.
- **Escalating Costs:** OEM service contracts often bundle calibration with other services at a premium, while offering less transparency into scheduling, scope, and documentation. Manufacturers may end up paying more for less oversight.
- **Strategic Blind Spots:** Without access to full as-found/as-left data and uncertainty metrics, manufacturers lose insight into equipment performance trends, making it harder to forecast failures, plan maintenance, or optimize asset use.

Even small oversights like missing uncertainty data or failing to document an adjustment can become major liabilities during an audit. And manufacturers find themselves cornered when those oversights stem from inflexible service agreements.



Training, Talent, and Technology

While service access is a headline issue in the right-to-repair conversation, a quieter crisis is unfolding beneath it—the growing shortage of skilled calibration professionals. That labor gap, coupled with rigid OEM service restrictions, has left organizations exposed.

As veteran metrologists retire and fewer replacements enter the field, SIMCO customers are adapting by leaning into blended service strategies. In some cases, internal teams handle frontline calibration while SIMCO supports more complex assets. In others, SIMCO provides full-service support, including on-site programs, remote troubleshooting, and digital tools that enhance visibility and control.

Technology is central to making this work. From AI-enabled diagnostics to cloud-based calibration tracking, SIMCO helps manufacturers automate routine so internal teams can focus on higher-value tasks. These tools don't just improve efficiency; they ensure calibration cycles stay on track even when staffing is tight.

More customers are also taking advantage of SIMCO's training programs, which are designed to upskill internal teams on ISO/IEC 17025 requirements, documentation best practices, and audit preparation. With the right systems in place, even small teams can run highly effective, audit-ready calibration programs.

In this context, right to repair means having the talent and tools to act on that access. The manufacturers that thrive will be those who embrace flexible, tech-enabled calibration strategies that aren't limited by headcount or legacy workflows.

Finding the Middle Ground

The growing tension between right-to-repair legislation and OEM service restrictions has created a polarization that doesn't reflect the real-world needs of most manufacturers.

Many of SIMCO's customers operate hybrid service environments. They rely on OEMs for specialized firmware updates, proprietary diagnostics, or warranty-required repairs, but they also turn to third-party providers like SIMCO for fast, reliable calibration and full audit-ready documentation.

Most OEMs only service their own equipment, while third-party vendors offer complete outsourced solutions. And whereas OEMs will discontinue service on older products to promote upgrades, third-party vendors have no such bias.

The friction arises when manufacturers are contractually prevented from using alternative providers, or when OEMs restrict calibration tools or documentation. Then it becomes both a competitive barrier and a compliance hazard.

SIMCO's vision for the future is one of collaborative coexistence. "We're not here to replace OEM service centers," said John Connelly, SIMCO's Chief Transformation Officer. "We're here to offer customers a choice."

Actionable Steps for Manufacturers

Right-to-repair is both a policy debate and a wake-up call for manufacturers to reexamine how calibration strategy impacts risk, compliance, and operational control. You need to understand what your calibration program is protecting—and what it's exposing.

Manufacturers that want to avoid bottlenecks and stay audit-ready should take the following steps:

1. **Reassess your service agreements.**
   Manufacturers sign OEM contracts assuming they'll get best-in-class support, but later discover limitations around turnaround time, access to documentation, or calibration depth. Does the contract restrict the use of third-party providers. Does it guarantee measurement uncertainty data?

2. **Evaluate providers through a compliance lens.**
   Price and convenience matter, but accreditation, documentation, and responsiveness matter more.. Third-party providers like SIMCO deliver ISO/IEC 17025-accredited service, Z540.1-compliant decision risk analysis, and full traceability across multi-OEM fleets. Can this provider give you the data you need to pass an audit, not just a sticker?

3. **Build internal right-to-repair awareness.**
   Too often, calibration constraints surface too late, during an audit or equipment failure. Quality, supply chain, and maintenance teams should know the importance of service flexibility, the risks of single-vendor dependency, and how right-to-repair principles can support regulatory compliance.

4. **Invest in digital calibration management.**
   Gain visibility into due dates, service histories, and audit readiness, and to flag at-risk assets before triggering findings. Manual recordkeeping and siloed spreadsheets make it difficult to prove compliance and easy to miss intervals.

5. **Empower your teams to escalate early.**
   Calibration agility must be owned at the leadership level. Frontline staff, quality leads, and operations managers need permission to raise the flag when calibration schedules slip, or documentation falls short. The earlier you catch the issue, the more options you have.

Conclusion: Building a Smarter, More Flexible Calibration Strategy

Calibration used to be a quiet checkpoint at the edge of the production process—scheduled, serviced, and filed away. Today, it's something else entirely: a flashpoint for risk, a lever for resilience, and a growing source of scrutiny in regulated manufacturing.

This isn't just about cost or convenience. It's about whether you can stay compliant, stay operational, and stay in control of your own equipment.

OEMs have every right to protect their intellectual property. But manufacturers have every obligation to meet regulatory standards—and those standards require speed, transparency, and traceability. When service access is gated, documentation is incomplete, or turnaround times stretch into weeks, the risk shifts downstream. And the liability lands squarely on the manufacturer.

That's why SIMCO is helping customers rethink calibration as a strategic capability. We aren't doing this as a challenge to OEMs but as a rebalancing of priorities—one that favors uptime, audit readiness, and quality system resilience. Reach out today to continue the conversation!

SIMCO

SIMCO is the leading provider of calibration and software services for technology organizations, bringing over 60 years of calibration industry leadership. Our experience enables us to develop exceptional solutions for service management.

Founded in 1962 to service NASA and high technology firms in Silicon Valley, SIMCO is committed to delivering life-saving quality leaner, by providing the highest level of quality and customer service.

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