



SciSure's Chemical Inventory Management Playbook

Your Formula for Scalable
Safety, Compliance & Efficiency

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Introduction

Why Everything Starts with Inventory

In every research organization, from scaling biotechs to academic institutions, one truth holds steady: **you can't protect what you can't see.**

Inventory may not be glamorous, but it is the foundation that supports productivity, safety, and compliance. When inventory is connected and current, audits pass easily, and research moves faster. When it isn't, everything slows down. Inspections drag on. Budgets expand, and risk creeps in.

That's why SciSure built its approach around the safety & compliance '**Trifecta**', three pillars that turn chemical inventory data into a lasting safety infrastructure:

1. **Efficient Intake** – Capture data accurately at the source.
2. **Complete Chemical Profiles** – Understand the safety & compliance implications of every chemical in your catalog
3. **Real-Time Compliance Reporting** – Maintain visibility and audit-readiness every day.

Each chapter shows how connecting these three elements transforms chemical management from an administrative burden into a competitive advantage.

The Hidden Cost of Fragmented Inventory

When the safety & compliance Trifecta breaks down, risk multiplies.

⚠️ Typical warning signs include:

- Spreadsheets full of inconsistent data
- SDS folders that don't match actual inventory
- Duplicate or expired materials
- Reports that take days (or weeks) to compile

Playbook Move – Diagnose the Gaps.

❓ Ask:

- How are new chemicals entered today?
- Is SDS and hazard data linked directly to each record?
- How long does a compliance report take to generate?

If any answer involves frequent copying and pasting from multiple sources, repeated lookups, or managing several spreadsheets, the compliance backbone is already strained.

Benchmarks – The Cost of Disconnection

📋 In SciSure's internal benchmark study across 32 organizations, labs reported:

- Losing over 20 hours per week to manual reconciliation.
- Compliance reports that previously took nearly 25 hours to manually complete can now be done in under 10 minutes with automation.
- Container search time dropped from 10.5 minutes to 1.2 minutes – an 89% improvement.

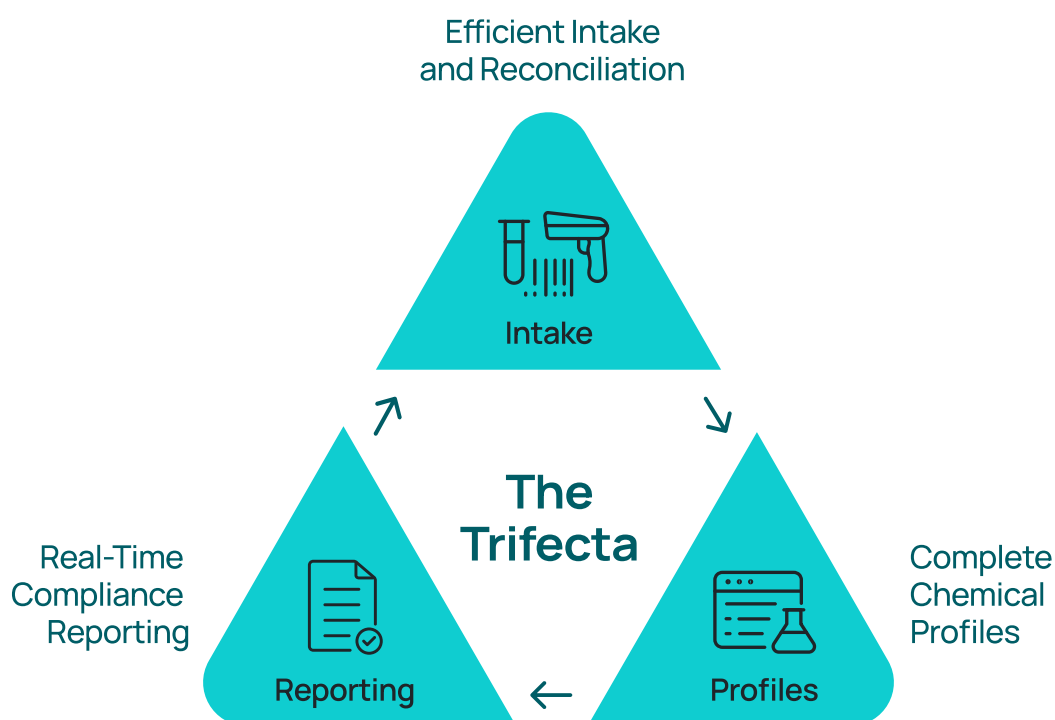
Quick Win

Start small. Map your intake-to-reporting workflow on one whiteboard. Most teams discover three or more separate data silos. The first step toward unifying them.



The Trifecta in action: Modernizing Chemical Inventory

Digital transformation isn't about adding software. It's about connecting the right processes, so truth is captured once and used everywhere.



1. Efficient Intake – Capture Accuracy at the Source

Why It Matters

Every error at intake echoes through the lifecycle. If data is entered incorrectly or not captured at all, error gaps multiply during reporting, reconciliation, and audits.

What It Looks Like in a Modern Lab

- Photo capturing tools (like SciSure's ChemSnap AI), barcodes, and RFID tags instantly reads label and supplier data digitally.
- Standardized templates enforce naming conventions and prevent duplicates.
- Automated ownership and location tagging so every container has a traceable chain of custody.

Labs adopting digital intake report time reductions of 70 percent or more and near-perfect data accuracy.

Playbook Move

Audit your current intake process. If “copy-and-paste” and additional “lookups” from multiple sources appear anywhere in the workflow, it’s time to automate.



2. Complete Chemical Profiles – Build the Brain Behind Your Inventory

Why It Matters

A chemical name alone isn’t enough. Safety and compliance depend on knowing each material’s physical properties, hazards, and regulatory identifiers. Without that context, labs operate with blind spots.

The ChemTracker Advantage – A Living Knowledge Base

At the heart of SciSure’s EHS and LabOps solution is the ChemTracker module – a proprietary chemical property database built through decades of collaboration with regulatory agencies, academic consortia, and chemical manufacturers.

The database contains more than 2 million verified SDSs, each enriched with physical, toxicological, and regulatory attributes that extend far beyond basic SDS data.

ChemTracker automatically:

- **Creates chemical profiles instantly.** The moment a new container is scanned or uploaded, ChemTracker cross-references the CAS or product IDs then auto-populates hazard, storage, GHS/NFPA classification, and MAQ data in seconds. No manual searches or error-prone re-keying of chemical data is necessary.
- **Matches and version-controls SDS records.** No manual searching or outdated PDFs.
- **Goes beyond compliance** by providing deeper safety indicators surrounding physical, health, and environmental factors.

This depth transforms ChemTracker from an inventory log into a decision-support engine for EHS and LabOps leaders. ChemTracker prevents blind spots automatically by making compliance and safety inseparable.

Playbook Move

Choose a single high-volume chemical and trace its hazard and SDS data sources. If the information came from more than one location or required a manual lookup, that's a clear signal your chemical property data isn't unified.



3. Real-Time Compliance Reporting – From Hindsight to Foresight

Why It Matters

Compliance used to mean preparing reports once a year. Today, safety expectations require continuous awareness, because inventory levels aren't static.

Tier II/RTK and fire code compliance depend on knowing how quantities are stored across locations. As chemicals are used, relocated, or disposed of, those volume changes determine whether you remain within reporting thresholds. Without current data, gaps can appear long before anyone notices, and they often surface during inspections.

What Modern Reporting Looks Like

- **Real-time reports** for Tier II/RTK, fire code, and MAQ documentation
- **Chemical inventory visibility** by hazard class, storage group, and location
- **Advanced chemical queries** to quickly identify hazards, including reproductive toxins, pyrophorics, and other high-risk categories.

Organizations using automation tools for intake, reconciliation, and building hazard profiles see dramatic reductions in report preparation time and fewer inspection findings because their data is always current and not reconstructed at the end of the year.

Impact

Based on SciSure's internal benchmark study, labs reported that when automation procedures are implemented, the average preparation time required to create a report was reduced by 99% (from 24.4 hours to 7 minutes).

Even more importantly, they shifted from reactive compliance to predictive control. Spotting risks before they appear in an audit.

Putting It All Together – The Living Trifecta

When intake, chemical profiling, reconciliation, and compliance connect, safety data moves with each container through its entire lifecycle



From Operations to Strategy: Scaling the Trifecta

Once the safety and compliance Trifecta is embedded, inventory stops being administrative work and becomes strategic infrastructure.

The difference between a compliant lab and a strategic lab is visibility: the ability to see, predict, and adapt before issues arise. That's what connected compliance delivers.

Audit Readiness as Default



Audits shouldn't be stressful; they should be a demonstration of mastery.

In a connected system, every report, SDS, and hazard summary is only a click away.

When regulators, fire marshals, or internal EHS auditors visit, your lab can demonstrate compliance in real time, not after weeks of preparation.

- Real-time records make audits predictable, not painful.
- Regulators see accuracy, researchers keep working.
- Labs that demonstrate data integrity earn faster approvals and institutional trust.

Playbook Move

Run a MAQ “mock audit”. If you are unable to produce a summary report within a reasonable amount of time, your system is reactive.

Scalability for Growth



Growth introduces complexity — new labs, new teams, new locations.

Without unified systems, every expansion multiplies data inconsistencies and compliance risks.

With the Trifecta framework, scaling doesn't add risk. It extends structure.

- Expansion extends visibility, instead of fragmenting it.
- ChemTracker's centralized database keeps every site aligned on hazards, SDS versions, chemical data, and reporting — ensuring new labs plug into existing compliance structures instead of reinventing them.

Playbook Move

When planning expansion, include digital infrastructure in the design phase, add ChemTracker access to your 'new lab startup checklist', just like fume hoods or fire suppression systems.

Collaboration & Transparency



Silos are the silent killers of lab efficiency.

Scientists, EHS, and LabOps often operate in parallel worlds: the researcher needs materials; EHS needs compliance data; procurement needs visibility.

- **Fewer compliance bottlenecks:** No more waiting for the latest spreadsheet.
- **Shared accountability:** Every role contributes to safety data integrity.
- **Better science:** Reproducibility improves when everyone works from clean, unified data.

Risk Reduction & Safety Culture



Most incidents trace back to missing or outdated data — an unlabeled container, a misclassified solvent, or an expired peroxide former.

The safety and compliance Trifecta eliminates these blind spots by ensuring **every container carries a verified, dynamic profile that evolves with usage and storage conditions.**

Financial Stewardship & Efficiency



Connected systems cut redundant effort and wasted purchases. Benchmarks across SciSure's lab network show significant time savings and measurable ROI.

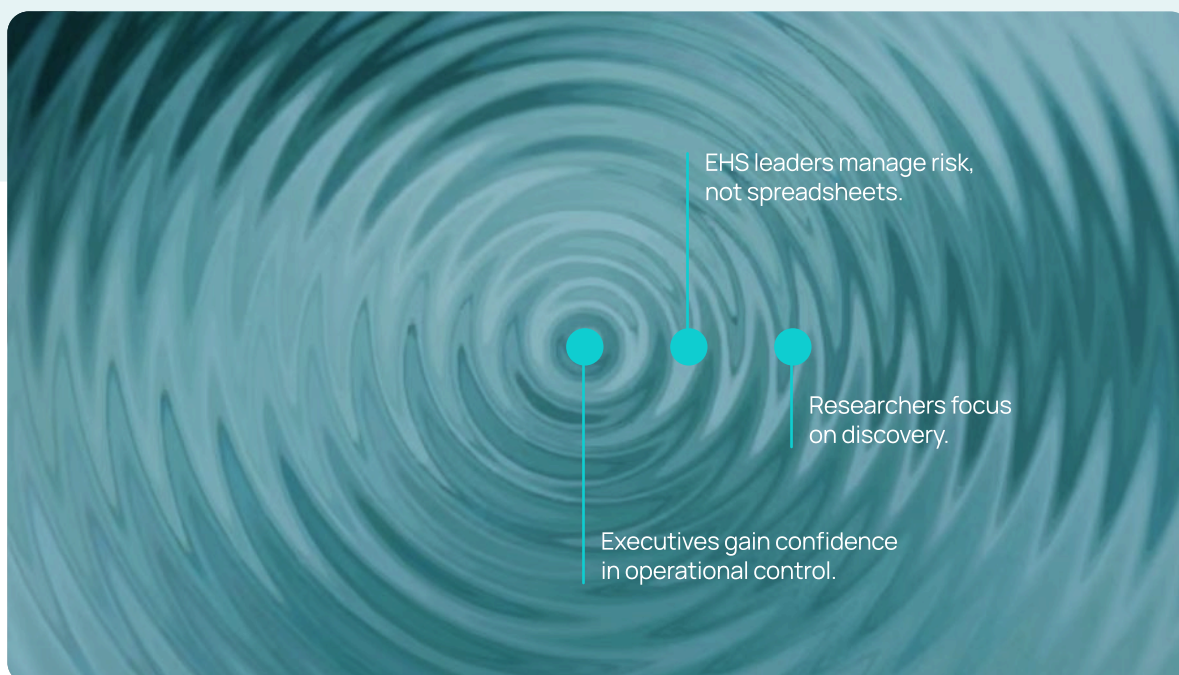
Every hour saved on administration is an hour returned to science.

The Ripple Effect – Inventory as Infrastructure

When the Trifecta becomes routine, compliance turns from obligation to advantage:

- Researchers focus on discovery.
- EHS leaders manage risk, not spreadsheets.
- Executives gain confidence in operational control.

Connected compliance becomes a catalyst for growth.



The Trifecta in Practice: ChemTracker™ in Action

In this final chapter, we move from concept to proof — showing how ChemTracker™, SciSure's flagship EHS module, operationalizes the safety & compliance Trifecta in real labs across commercial biotech, incubators and academia.

The results are based on SciSure's benchmark study spanning 32 organizations, comparing performance before and after implementing ChemTracker-powered workflows.

The Before State: Fragmented, Reactive, Risk-Prone

Before adoption, most organizations face the same reality:

- Chemicals **logged manually**, often days after arrival.
- SDS binders **out of sync** with what's actually in the lab.
- Reports stitched together from **multiple spreadsheets**.
- EHS teams **chasing data** instead of ensuring compliance.



This is what the safety & compliance Trifecta is designed to eliminate.

1. Efficient Intake in Action

**If you fix intake, you fix
80% of downstream issues**

A digital capture workflow replaces manual entry and standardizes data capture from the moment a container arrives. Labs using ChemSnap AI image capture, barcode labels, and RFID tags saw dramatic improvements:

Intake Metric	Baseline	After ChemTracker	Reduction
Time to add a container	6.5 min	1.7 min	74 % faster
Time to update multiple containers (e.g., ownership changes)	22.8 min	3.4 min	~7× faster
Time to reconcile chemical inventory	20.0 h	30.3 min	97.5% faster



The result: labs reclaimed 20+ hours per week previously lost to manual methods. With intake standardized, the entire lab network runs on a single source of truth.

2. Complete Chemical Profiles in Action

**Inventory lists chemicals.
ChemTracker understands them.**

ChemTracker's proprietary database now holds **2 million verified SDS records**, each enriched with GHS, NFPA, MAQ, and hazard data from regulatory and academic sources.

Every new container scanned is instantly matched to its SDS and auto-classified for storage group and reporting.

Real-world results from the study show that labs achieved:

Profiling Task	Baseline	After ChemTracker	Reduction
Monthly time spent correcting data	17.3 h	1.7 min	99.8% faster

This dramatic reduction reflects the combined impact of automated intake accuracy and ChemTracker's ability to instantly apply verified hazard data to each chemical profile.

Beyond compliance, ChemTracker's depth lets EHS teams surface invisible risks such as reproductive toxins for expectant staff, or aging pyrophoric materials that require urgent disposal. All without manual lookups.



3. Real-Time Compliance in Action

**Compliance is no longer an event.
It's a live data stream.**

Labs that automate intake, reconciliation, and hazard profiling achieve major reductions in report preparation time and maintain continuous compliance accuracy.

Benchmarks include:

Compliance Metric	Baseline	After ChemTracker	Reduction
Time to generate Tier II/RTK or Firecode report	24.4 h	7.2 min	99.4 % reduction
Manual reminder messages to research staff (per month)	44.8 msg	5.4 msg	~88 % reduction

What was once a quarterly scramble is now a continuous state of audit-readiness. Labs no longer “get ready” for audits. They stay ready.

Results That Scale

Across SciSure's customer network, labs achieved measurable, repeatable improvements:

- **82.6%** reduction in routine safety and operations tasks.
- **63.7%** less scientist time spent on compliance activities.
- **94.1%** faster report generation and SDS retrieval.
- **Over 500,000 scientists** supported globally through the SciSure ecosystem.

These aren't isolated wins. They prove that connected chemical inventory management scales across organizations of any size and complexity.

With ChemTracker, compliance is no longer a cost center; it's a strategic advantage that empowers scientists to focus on innovation instead of administration.

Playbook Move

Run your own mini benchmark. Time how long your lab takes to add a container, locate an SDS, or generate a report, then compare results against the ChemTracker benchmarks shared throughout this paper. Most labs will be able to expect time reductions of 70–99 percent when compared to their current workflows.

Conclusion

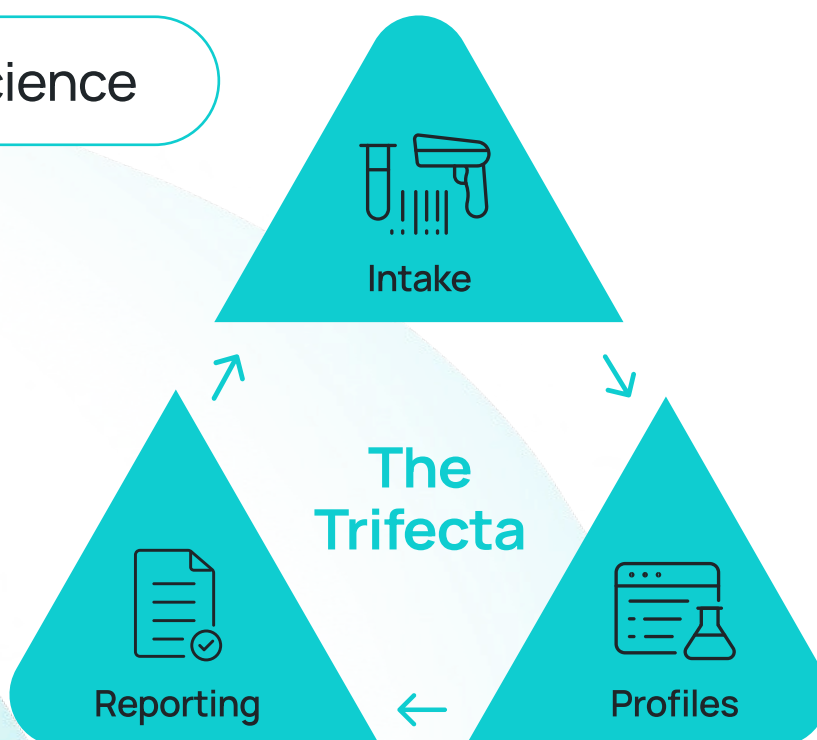
The Future of Connected Compliance

Compliance used to mean control through paperwork.
Now it means control through connection.

By aligning intake, profiling, and reporting into a single workflow, SciSure helps labs scale safely, efficiently, and intelligently.

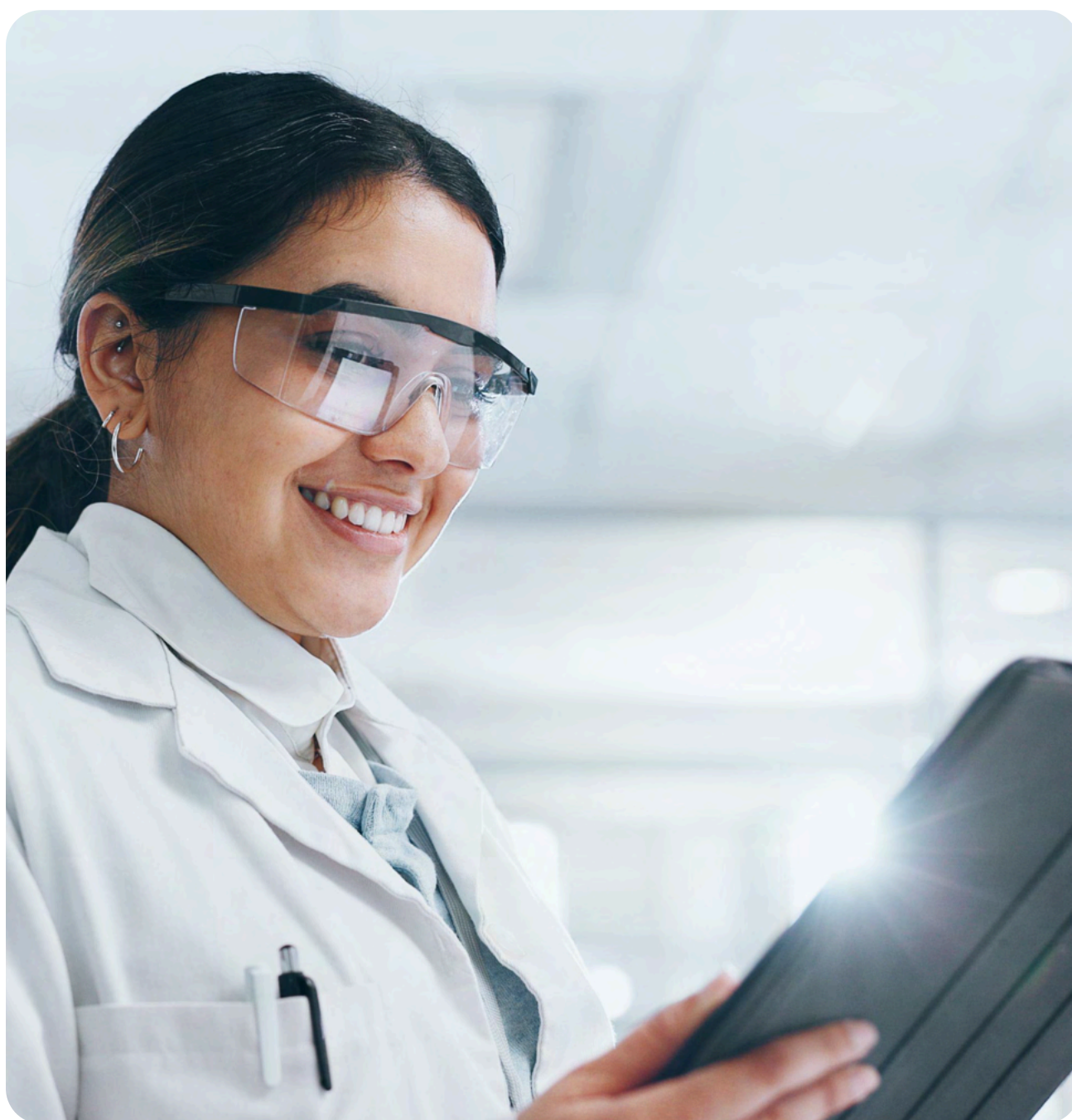
When inventory becomes a living system rather than a static spreadsheet, safety stops being a barrier and becomes a driver of scientific progress.

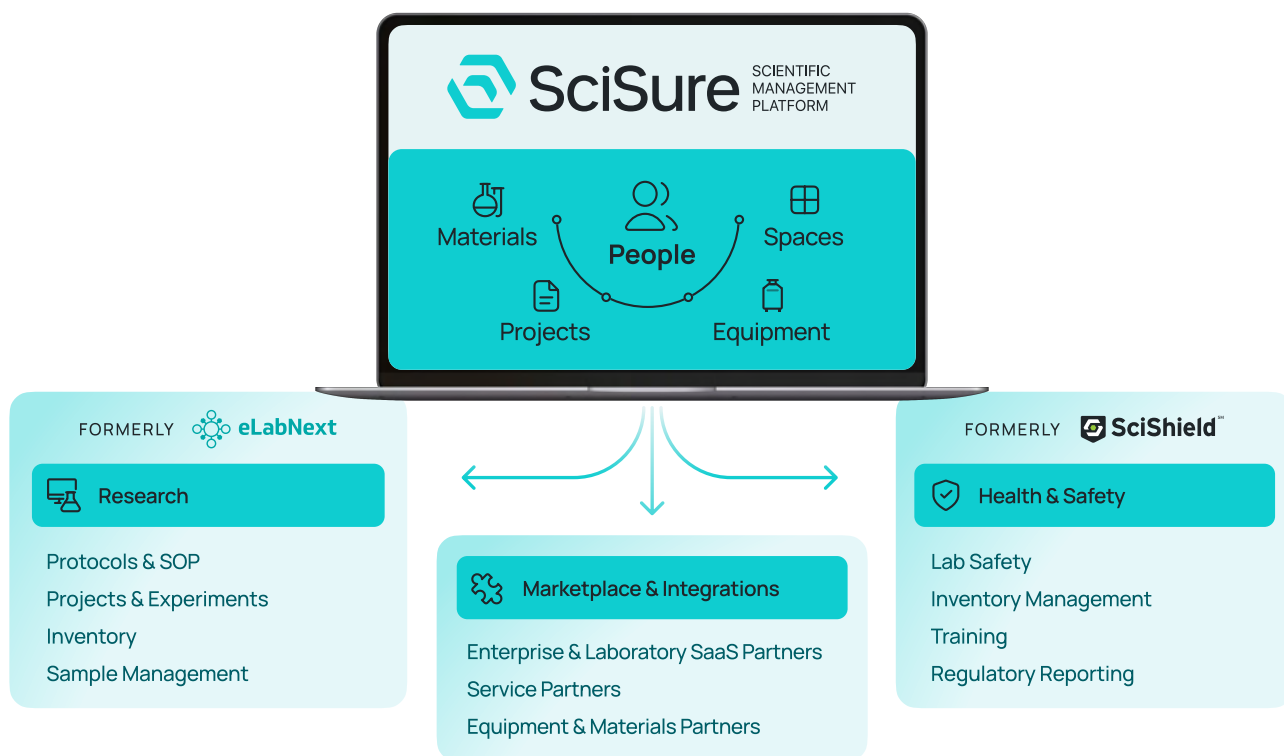
Safer, Smarter Science



Purpose-Built for Modern Labs

Unlike bulky, enterprise-heavy systems that were never designed for the unique needs of life science organizations, SciSure was purpose-built for the way modern labs actually operate, whether you're running a global biotech firm, a fast-scaling mid-market company, or an incubator serving multiple startups.





Health & Safety that's built-in, not bolted on

Safety isn't just a compliance checkbox—it's a foundation for sustainable, high-performing research. SciSure weaves health and safety directly into everyday lab workflows:

- Real-time MAQ tracking and hazard visibility
- Integrated training management and safety SOPs
- Audit-ready reporting without chasing paperwork
- Automated alerts and compliance reminders right where scientists work

Research tools designed for scientists, and approved by IT

SciSure isn't a retrofitted business platform—it's a scientific management system built for scientists, with:

- ELN and LIMS functionality designed to mirror actual lab workflows
- Sample, protocol, and equipment tracking in a single interface
- Experiment planning and data journaling that's intuitive and accessible
- Role-based access and clean data structures that support reproducibility and collaboration

No steep learning curves. No toggling between disconnected systems. Just a smarter, more streamlined Scientist Experience.

A Marketplace that scales with you

One of SciSure's most powerful advantages is our Secure Partner Marketplace, which eliminates the rigidity of one-size-fits-all systems. Labs can tailor their platform experience with:

- **Enterprise & Laboratory SaaS Partners** — Integrate your existing tools or select best-in-class applications
- **Service Partners** — Plug in consulting, safety, or operational expertise as needed
- **Equipment & Materials Partners** — Manage procurement and asset tracking within the same platform

Whether you're an incubator serving dozens of member companies, a top ten global biopharma, or a growing biotech building your digital stack, SciSure gives you the flexibility to build what you need—without vendor lock-in or overbuilt bloat.



Your home base for connected and reproducible science

SciSure is more than a platform; it's a commitment to better science through smarter infrastructure. Modular. Flexible. Purpose-built.

Let's reimagine what your labs can do.





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