4 Considerations for Implementing a New Lab Automation System

The smarter path to managing a complex lab environment

Xybion®

The Smarter Path:

Better manage the complex lab environment and help your enterprise get the true value of full automation

It's vital for your lab to perform smoothly. To spend the most time possible on lab work—as opposed to admin.

Of course, the work of healthcare and life science labs is to advance therapeutics, detect disease or ensure quality. But unless you drive performance, lower risk, compel agility and reduce costs, you won't keep pace.

So how do you avoid the current complexity of lab processes and technology changes?

The short answer is you don't. But you can make it easier with a few considerations to help manage a complex lab environment and enable your enterprise to gain the value of technology with full lab automation.

> *"… to implement configurable technology based on lab-specific workflows that can be implemented with a fraction of the time and cost."*

What's the challenge? Which way forward?

Despite COVID-19, you've seen dramatic increases in data transformation and process automation. However, technology capability is meaningless unless it's used to meet organizational needs and human application.

The challenge is how do we decrease the number of technology silos enterprise-wide and the disruption caused by updates, while broadening the impact of technology on innovation.

The purpose of this paper is to help you think through the finer points to consider when deploying lab automation functionality—whether it be Laboratory Information Systems (LIMS), Electronic Lab Notebooks (ELNs), Document Management (DMS), Quality Control or Assurance (QMS), Supply Management (SMS), equipment certification, consolidated reporting—or all of the above.

Your goal, to implement configurable technology based on lab-specific workflows that can be implemented with a fraction of the time and cost.

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Four Essential Elements In Implementing Lab Systems

The demand for laboratory services is growing exponentially yet the pandemic not only introduced disruptions, it exposed pre-existing weaknesses.

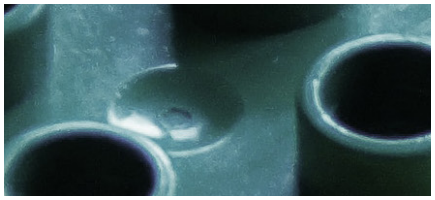
Technology is key to addressing those weaknesses, delivering platforms that assure data accuracy, regulatory compliance and the flexibility to adjust quickly—just like Lego blocks that can be assembled to snap-on as needed.

To leverage solutions—replacements or entirely new—consider these four critical elements:

- Lab performance
- Regulatory compliance
- Flexibility
- Cost efficiency

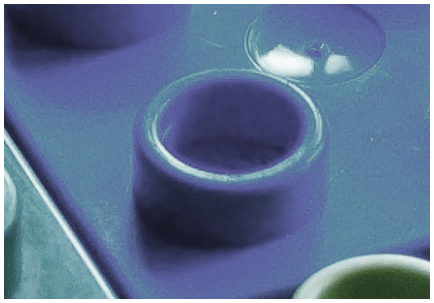
Lab Performance

After you consider basic functionality, think about increases in productivity, efficiency and process improvements.



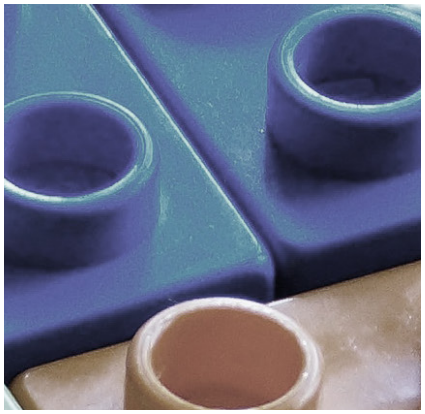
Regulatory Compliance

FDA compliance, data integrity, quality assurance, document control, instrument certification, and security are all vital to a smooth-running, high-quality laboratory.



Flexibility & Agility

Compatibility across labs and across your organization is critical, yet so are external connections. Cloud technology enables easy integration and unifies siloed functions whenever you're ready to upgrade.



Cost Efficiency

Reducing operating costs, capital costs, materials costs, production costs, or staffing costs can be complicated, but Total Cost of Ownership isn't the only cost to consider.

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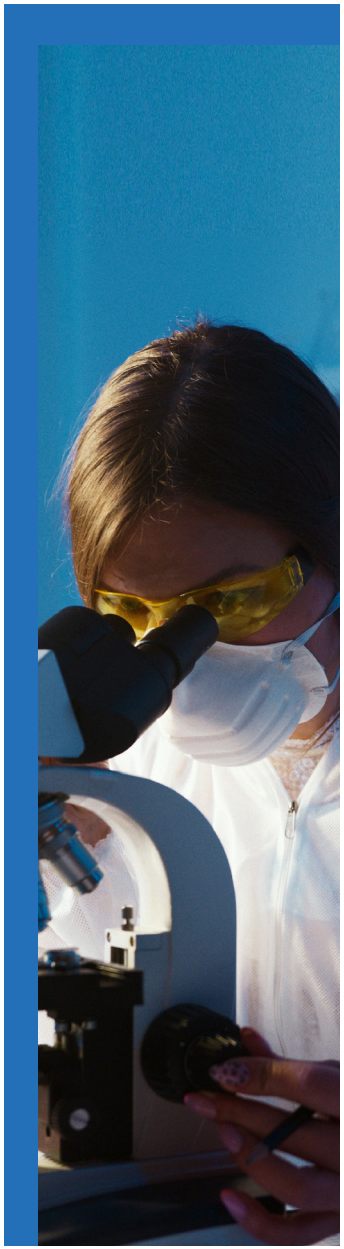
Lab Performance



Functionality, productivity and process improvement

It's not difficult to find the basic foundations for lab automation. Sample management, data entry, reporting capabilities and more are not new. Most labs already have automation—to varying degrees.

The real questions are:

- Does it have specs for the type of samples/tests you conduct?
- How good, thorough, accurate, trackable and/or digital is it?
- Does it work with what you have today and plan for tomorrow?

As you think about upgrading or starting fresh, the trick is to avoid getting stuck—functionality is a means, not an end.

For example, while most labs have sample management, not all are created equal. Does it have the sensitivities to handle **multiple samples**—biospecimens, genetics, cells, infectious diseases, clean rooms, incubator growth, manufacturing, audit chains, analytics?

What about driving **improvements in procedures or sophisticated protocols**? Can it track touches throughout testing? Offer e-signatures, date/time stamps? Handle special storage temperatures or conditions?

Then there's **data and documentation**. Audit requests include much of the above, plus—like process documentation, location transfers, division of parent/child? Is it fully evidenced? **If it's an instrument**, is it validated, calibrated, documented, auditable? If it's human, is **training certified**, using GLP/GMP competency? Who's tracking? How?

What about data entry and the challenges of data analysis? It could be a spreadsheet which simplifies calculation, but who transcribed the data? Who had chain of custody? Who entered it? Are there different access rights? Was it into an ELN? Was it digitally witnessed? Was it made immutable? What about final report numbers?

Performance Considerations

While there are multiple questions, consider a solution that has the functionality to do what you need and do it well, and offers the forethought to adapt quickly and relatively easily as the need evolves. That means considering four concepts:

- End-to-end functionality
- Pre-configured, low-code workflows
- Modular approach
- Cloud-based delivery

End-to-end Unity Improves Operations

Supporting business process management (BPM), this increases productivity while extending across data, people, processes and instruments, enabling lab leaders to better manage operations and propel innovation.

While many approaches solve issues within a respective domain, evaluate whether it's perpetuating silos or offering **unity across functions**. This may mean replacing expensive software, that does not communicate efficiently, with BPM tools to **enable seamless integration** with other enterprise systems, instruments and equipment, as well as your customer's systems.

Be sure the solution you choose is designed for use by **several lab personnel** in multiple labs or different locations at the same time. New circumstances are forcing greater collaboration, within the organization and without. That requires flexibility—a simple solution that's easy to onboard for scientists and connects with document or data sources quickly. In addition, make sure it connects with legacy and Enterprise Resource Planning (ERP) systems as needed to unify labs with other areas.

Preconfigured, Low-Code Workflows

For **rapid and robust functionality**, consider preconfigured workflows and how results are generated via these automated flows. Built for use by scientists within specific lab types, you should be able to rapidly configure modules **without coding** programmers, **without long implementation** timeframes, and **without significant training requirements** for your team.

The real benefit is that as regulatory, client or process requirements change, you can easily update and incorporate modifications. With no IT support and **no major operational disruption**.

Design and low-code pre-configuration of scalable modules does require significantly more expertise than traditional LIMS design approaches. So it's often best for your IT team to focus on their primary objective rather than internal software development.

For high levels of regulations and strict evidence-based requirements, some systems are better than others. **Step-by-step workflows** should be based on experience within multiple lab entities to allow for flexible tailoring. Knowing your requirements depends on the type of lab managed, i.e., **clinical, pre-clinical, scientific or QC**, and type of samples analyzed, data used, tests validated and supplies required for:

- Diagnostic labs
- Gene, Car-T, Cell and Immuno labs
- Therapeutic R&D labs
- Manufacturing/Production QC labs

Tailor Requirements by Lab Type

In Diagnostic labs, you need to manage and monitor the type of samples your lab processes—every kind. From accessioning and ID generation to packaging and reporting, an intelligently designed platform can effectively manage processes and enable your customers to monitor test progress. To automate diagnostic test processes, be sure you choose a solution that easily updates workflows, including the ability to pull information from contract systems, schedule test instruments or create Certificates of Analysis.

CAR-T, Genetic, Cell and Immuno Therapy lab management requires systems designed to work with specific therapies or similar investigations—ideally those that manage biological samples and specialized reagents. Make sure the solution integrates seamlessly with third parties and tracks samples to the correct patient. Consider a solution that not only helps master production processes and deviations or CAPAs (Corrective and Preventative Actions), but also tests protocols and is supported by quality, document and governance disciplines.

For Therapeutic R&D labs look for a pre-configured module that enables researchers to search protocols and sample information, follow samples through analysis and investigate analytical results. Be sure you can monitor all aspects of your lab from protocols, samples and images, to materials, instruments and data.

For Quality Control or Stability Studies with material flows, equipment documents, deviation management and more, look for well-organized standard QC processes that homogenize multiple labs into a consistent environment, handle sample requests from ERPs (Enterprise Resource Planning) systems, and structure data entry/transfer with standard functionality. Stability study labs too can manage digitally as well, reducing the mistakes of manual paper-based processes.

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Modular Approach Offers Best of Both Worlds

Depending on the need, labs can benefit from the best of both worlds: **commercial off-the-shelf (COTS)** software, also referred to as **out-of-the-box**, with pre-configured, pre-validated modules. These offer stability and proven reliability, yet with built-in ability to configure as needed.

While designed to manage the typical materials, processes and equipment for lab teams, workflows should be specific to the lab type and have the ability to be tailored. Most COTS systems can be modified to fit unique needs but still take advantage of streamlined procedures that fit a more standardized model.

Practically speaking, configurability doesn't require the coding or programming custom systems typically require. COTS systems instead rely on "switches" that can be clicked on or off within a user-friendly interface.

Conversely, full customization often depends on resource and investment budgets. With COTS, should modifications to the platform go beyond configurability and include code changes, expect to lose some financial leverage.

Regardless, there are full systems that provide the flexibility for increased testing activity, capability and quality that also focus your lab resources on your unique capabilities, rather than software development—without added implementation time. Look for those built by scientists for scientists.

Cloud-based delivery matures

Based on better customization options, the preference should be for a cloud-based deliver mode versus web-based or on-premises,

as cloud enablement has come a long way in recent years. According to Gartner, Cloud computing is firmly established as the new normal with cloud-based apps continuing to be the most widely adopted technologies.

Cloud-based options often provide lower levels of risk, including cost, and **leverage greater mobility** and access from within the lab and beyond. For example, cloud delivery offers mobile connectivity to formulations, equipment, facilities, master schedules, data captures, reporting and more, without sacrificing function.

Maximizing the cloud's value are cases of **proven resilient, sustainable** lab operations. Consider how you can use the cloud to help break down silos, unlock flexibility and compel new opportunities for innovation.

Regulatory Compliance

FDA and agency compliance, data integrity, quality assurance, instrument integration and validation

While government compliance entities raise the bar to better control risks inherent in lab operations, organizations are re-imagining approaches for dealing with regulatory requirements, data integrity and QA/QC necessities.

Though national and local agencies persist in intensifying regulations, laboratory management continues efforts to shift previously manual tasks to digital automation in the hopes of improving regulatory compliance, among other benefits.

Still, siloed and broken legacy systems create barriers for compliance, data management and integration. And well-known resource constraints, limitations in internal audit capabilities and increasing mandates make improved compliance difficult. Especially when lab teams still track work in personalized spreadsheets saved on hard drives across an organization.

Though many labs have gone digital over the intervening years, existing LIMS often focus on operations like sample tracking and data storage while ignoring opportunities for analysis. Or they attempt to solve analysis issues while ignoring context or potential data linkages across experiments, across clients and across geographies.

Yet, there are key dimensions of every regulated business: process, quality, compliance and data assets. All of which are tied together through technology, giving way to solutions and new opportunities in this space. With benefits that include greater accuracy, increased productivity, compliant audit logs, and consistent reliability—not to mention no fines.

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Compliance Considerations

To address quality, regulatory and compliance needs, labs should ensure the management of samples, raw materials, data, documents, quality deviations, test instruments, training, CAPAs and non-conformance tracking.

Consistent management of policies, procedures, validations and workflows can generate audit trails automatically and provide critical elements for a broader Quality Management System.

Specifically, compliance requirements generally cluster in three connected concepts:

- Data integrity
- Quality management
- Regulatory experience & risk controls

Data Integrity: Making Everything Easier

Transferring, handling and tracking large amounts of data isn't easy. Fortunately, there are systems to help, but there are as many features as there are types of data. And while there are many valuable data analysis applications, AI and machine learning for example, success is largely dependent on data integrity, i.e., effectively aggregated, cleaned and harmonized data sets.

Cloud-based technology, including a data validation package to ensure fields are both correct and useful, allows data to be more easily managed and distributed, yet greater data integrity is often realized through a **common platform.**

Data integrity starts with enhanced data transfers from external sources to lab data lakes or data warehouses in a common cloud -based platform. These eliminate point-to-point connections and instead enable one-to-many connections at scale with querying capability.

Also functions currently working independently **can share information, collaborating**, storing and using data together in a data lake or cloud platform solution. With data integrity tools, lab managers can enable data use across teams for immediate **impact to the bottom line** and future innovation potential. The important work that happens in labs can be linked to the functions dependent on it, making it easier to leverage supply chains and scale-up procedures for example.

While data integrity makes most things easier, the true benefit is realized when technology **improves data quality, reducing errors** and non-conformance, and makes the data transfer process faster and easier.

Compliance and Quality Control Labs

For an average product test, a Quality Control lab could have more than a thousand data elements to capture and analyze. Regrettably, many of these processes are executed manually. Thus, input data, findings results and process management are disjointed, creating data integrity risks and downstream problems.

Quality control is designed to detect and correct deficiencies in a laboratory's internal analytical processes. Yet, failure to meet FDA requirements or other mandates for traceability, security, quality and governance may not only mean penalties, but could result in costly cybersecurity issues, not to mention significant disruption across your organization.

In a compliance or quality control environment, the goal of task and technology is to identify gaps where policies, procedures, training and auditing may not be effectively monitoring and mitigating risks.

Quality control involves regulation of all raw materials and production procedures, as well as testing of final products, all following GMP (good manufacturing practices or lab practices, GLP). Consequently, all protocols should be up-to-date and followed by personnel with certified training documentation. It also requires equipment be well-maintained, and regularly audited, inspected and documented.

While in manual or automated QC both reliability and accuracy are required, **with automated workflows an audit trail is generated** tracking reliability and enabling electronic signatures to document accuracy.

With automation and preconfigured workflows, you can **securely track** files, databases, laboratory or manufacturing process and testing equipment, and configure any file-based system for changes, including additions, deletions and file modifications.

Proactively monitoring an automated **dashboard of key quality or performance indicators** and compliance controls enables identification of potential or existing control gaps, and the application of **preventative or corrective procedures consistently** via a more systematic approach to quality assurance.

Regulatory Experience: Be Audit Ready

You depend on regulatory experts with trusted experience working with global health authorities or the FDA to **reduce the risk of failure, fine or citation**.

This experience should also flow into the technology that enables lab projects to be rolled out and **executed faster, safely and compliantly**. Regulatory experience built into technology can reduce processing time by managing GMP and non-GMP compliant workflows, implementing controls to meet FDA mandates, and certifying ISO adherence.

For each step to be in compliance, human tasks and technology must work together for increased lab quality, reduced data entry issues, better resource management and effective governance. This requires not just sample tracking automation, but distinct improvements to:

- Document management & control
- Equipment & instrument tracking
- Materials inventory management & tracking
- Credentialing and accreditation

While automation to maintain compliance with these controls is important to achieve today's standards, new technologies will ultimately help to further new functionality and capabilities more rapidly as new regulations are introduced.

Document management & control

FDA-dependent labs should consider a full-featured document management system (DMS), including built-in best practices for **real-time monitoring of 21 CFR Part 11 compliance, ISO 9001 or 13485 regulations, GMP/GLP compliant** flows and **GAMP** guidance, **SOX** principles, and other quality or governance processes.

A DMS needs to be file format neutral—for images, spreadsheets, PDFs, SharePoint, and the like—yet advanced enough to link defined data to controlled documents, easily manage document metadata, and automatically be "**audit ready**" **with documentation** for compliance inspections.

To further raise productivity, configurable flexibility can allow knowledge workers to tailor the repository to meet specific needs and seamlessly integrate with quality apps or desktop platforms. Seamless integration allows users to access key documents, such as SOPs, Material Safety Data Sheets (MSDS) or Certificates of Analysis and other content management (CMIS) compliant systems.

Look for built in document control options such as embedded hyperlinks to support regulations requiring such, specification of control versus uncontrolled documents, granular security for editing and document access, and the ability to support **automated audit trails and e-signatures**.

Equipment & Instrument Tracking

For testing equipment or analysis instruments, make sure the module platform efficiently tracks equipment controls and documentation related to activities such as calibration and preventative maintenance. Think about requiring **alerts, triggers and notification management** as part of resource management efforts, thus reducing operational risk and seamlessly integrating equipment across the laboratory or multiple labs.

Make sure configuration includes knowledge of quality guidelines enforced by the FDA, ISO and others, as well as ensuring lab personnel are appropriately trained so instrumentation is handled correctly and processes are not compromised.

The goal is for equipment to stay compliant so your team can focus on the core business, avoiding strained resources and ineffective efforts to “fix” instruments internally or worse, be cited during inspection for non-compliant operation, maintenance or contamination.

Materials Inventory Management & Tracking

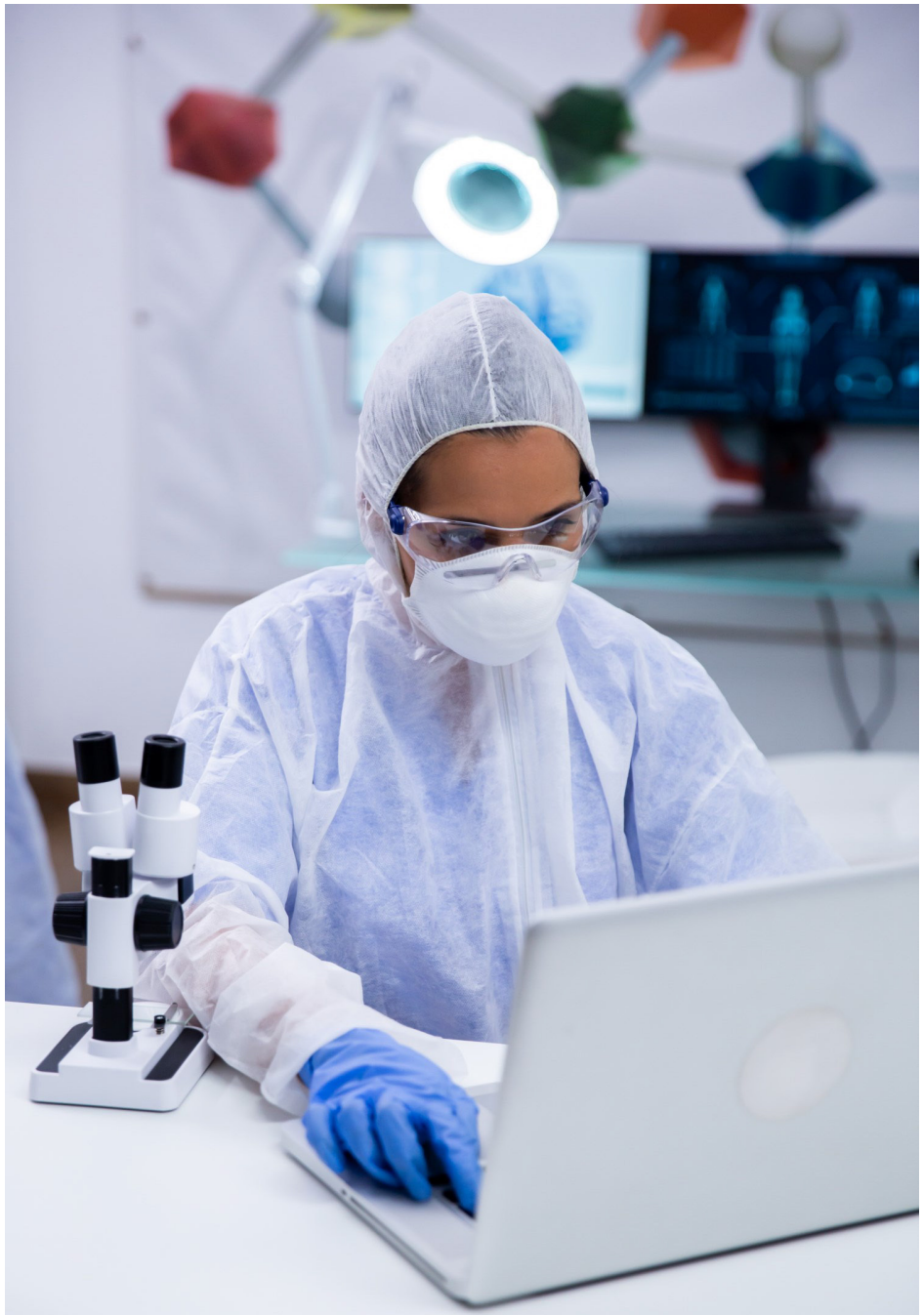
Regardless of whether you call it supply management, master materials records, or inventory, you’ll need documentation of receipt, the manufacturer, storage, and movement of materials among laboratory areas, so be sure you can efficiently:

- Track drug substances, vehicles and excipients by container, user or date
- Prepare hazard statements and special handling
- Develop and execute drug formulation worksheets based on inventoried materials
- Track materials archival and disposal records

Credentialing and Accreditation

When dealing with lab personnel, the FDA and other regulatory entities are concerned with appropriate education, handling and equipment credentialing and accreditation. With a full-featured DMS, control certification documents can easily be stored from certifying groups, such as AALAC (Association for Assessment and Accreditation of Laboratory Animal Care International), MDSAP (Medical Device Single Audit Program), and easily accessed for retrieval or audits.

Automated storage of credentials enables the appropriate regulatory oversight and quality management while minimizing regulatory burden.



Flexibility & Agility

Internal and external compatibility for supervisory oversight, consolidated reporting and vendor management

To adopt new platforms and make timely improvements, you need to consider a foundation that's **compatible and secure** across your lab and across your whole structure. Your internal IT team can likely help.

Still, government regulations, in addition to electronic security, digital trust, and outdated business and operating models, have impacted the adoption of much emerging technology. But despite the challenges, lab managers need to press forward—with a clear, secure implementation road map, adeptly and adroitly built with future **snap-on efficiency** and **enterprise sensitivity** in mind.

Choosing a compatible system that's easy to integrate with existing equipment can be difficult. Especially, if your existing systems (e.g., LIMS, ELNs, liquid-handling robots) are supplied by a variety of vendors. You'll need to investigate whether they are compatible with the automated systems you are considering, and **weigh streamlining** to fewer apps and vendors.

Consolidating and connecting disparate systems likely depends on the rate of infrastructure aging and financial depreciation. In reality, legacy systems are retired at different times, thus migration takes place independently of other systems limiting the ability to manage multiple vendors or expensive interfaces.

Nonetheless, you need a low-risk solution that accounts for these timing differences. Using modularity enables eventual system unity and can broadened the plan for implementation of additional modules to support other functions whenever those system options become leverageable.

A modular approach with a configurable BPM engine allows you to **manage all aspects of your laboratory's business operation**, from receiving customer orders and samples, to digitizing your laboratory test protocols and executions, to linking customer portals to your CRM system, to creating final reports or billing back to your customers.

If the link is reversed and other departments access your systems, train them in the data integrity tools and functions the system provides. And don't forget to broadened your plan for implementation to support other functions and departments.

Flexibility & Agility Considerations

A cloud-based solution is ideal for **multinational**, **multilingual** and multi-partner lab environments. It's also valuable for gaining the flexibility and agility needed to ensure compatibility internally or externally, particularly for:

- Comprehensive reporting
- Supervisory reviews & approvals
- Sponsor/vendor/business management

To implement comprehensive reporting, start by identifying processes to monitor proactively and be sure to allow for preconfigured dashboards, scorecards and pre-validated reports to streamline compliance monitoring and reporting.

A **consistent dashboard view** of key performance indicators and compliance controls will not only benefit lab operations, but flow data seamlessly giving other process owners and supervisors the basis to **drive higher quality**.

For internal or external purposes, automated reporting can readily integrate data, results, analytics and data visualization tools. Internally you can quickly track non-conformance by geography or unit, and pinpoint the human interface or manual process that's inserting vulnerability into the system.

Externally, your team can mitigate issues before they become audit or client problems using **CAPA management technology connected to your quality processes**. This agility gives you a complete picture of how to improve quality management by digitizing and automating CAPA processes, such as routing, notification, escalation and approvals to avoid bottlenecks and expedite issue resolution.

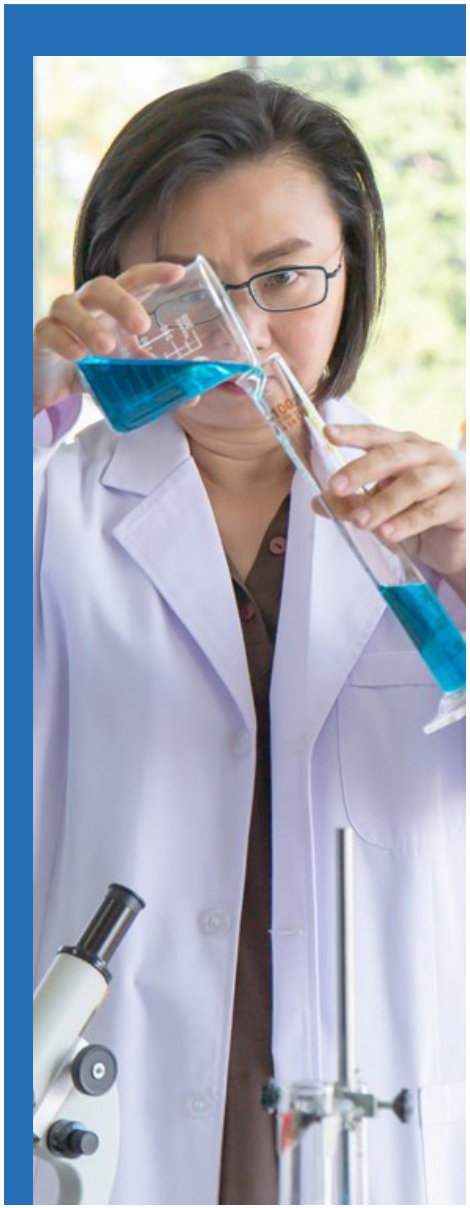
Specifically for supervisory review and approval tasks, workflow-driven modules manage requesting and publishing **detailed evaluation results** according to the scope of the request.

Migrating from paper-based management processes to technology -driven tasks can help minimize risks and manage compliance to create safer more efficient and productive workplaces.

Modules for **sponsor and vendor business management are available to** manage end-to-end contracts, protocols, employees, vendors, and products or services regardless of origin.

Discuss how you can integrate your systems, perhaps even reduce duplication by speaking with experts or select vendors to side step problems and minimize workflow issues. Consider whether existing platform upgrades are necessary for suppliers or vendors to become compatible. If there are other laboratories with similar systems already in place, contact them to learn about their experiences with the vendor and product.

Cost Efficiencies



Total cost of ownership

Like most industries, keen competition, demanding clients and a variable regulatory environment increase pressure on lab teams to accomplish more with the same or fewer resources.

Is it possible to manage non-standard manual operations, rapidly changing demands, unclear data, personnel challenges and other issues, while still accomplishing more?

Of course, a positive answer tends to be easier said than done. But with a few strategic considerations you can optimize your lab's efficiencies and set the foundation for a stronger competitive advantage.

Before you start though, you'll need to **set realistic goals** for improvements, taking into account your Total Cost of Ownership (TCO).

This includes lifetime maintenance costs related to facility, equipment or technology deployments and hardware, updates, expansions, security, patching, troubleshooting and more. It also includes personnel costs, given the requirements for skilled knowledge workers and scientists.

Calculating TOC often immediately eliminates the high cost inherent in customizing traditional technology solutions, and the manual workarounds typically needed while you wait for those manipulations to be delivered.

In addition, sometimes deployments are in a geographic location or physical space, with necessary utilities, insurance and the like. Or sometimes they aren't in a building, but occur in a private cloud environment maintained by the organization or by another.

Operating costs, capital costs, materials costs, production costs, and staffing costs are complicated, yet reliable cost prediction and reduction are both important, though they aren't the only consideration.

If an R&D project is late, costs could grow exponentially. In fact, regulatory and quality control managers often cite their biggest concern as making a costly or time-consuming mistake.

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Considering the Reverse of Cost

Retiring disparate systems for the efficiencies of a single collaborative workplace aren't easily quantified, but are qualitatively real.

Being ready for quality or regulatory compliance speeds time to market, reduces the risk of product repeal, and may even help increase market share where demand is growing.

For laboratory leaders looking to upgrade anything from LIMS to an ELN to a full laboratory automation system, the question is how. And then, how much?

It likely doesn't make sense to assume all of the risk and cost associated with custom development. Or the maintenance of IT systems and cloud resources that could better be outsourced to an expert vendor.

When purchasing a LIMS or any other system, you should certainly expect a system with the functions you need, including the:

- Flexibility to grow
- Reliability you can count on
- At a reasonable price
- Yet not a protracted implementation timeline

While some systems come close, it's doubtful any one system will match your needs one hundred percent straight out-of-the-box. Flexibility can offer the needed functionality with tailored configurations in a modular approach to "snap-on" functions that monitor compliance, ensure documentation, or manage third parties or suppliers as your organization becomes ready for each platform. Also, automation capabilities free resources to ramp up processing or production as needed or update requirements rapidly as regulatory or client demands increase.

Regardless you'll need to evaluate cost savings against a range of other factors: application complexity, legacy needs, data location, compliance requirements, interdependencies, and the potential value and innovation to be unlocked via system optimization.

Cloud Cost TCO

A true SaaS or PaaS analysis is based on TCO and should account for all costs associated with implementation—annual upgrades, revalidation, IT talent, data center hardware, disaster recovery, security, and all personnel cost, not to mention opportunity costs.

For cloud-based platforms, you **pay for only the services you need**, with no inhouse servers, no software, and no IT maintenance or infrastructure costs. The cloud's orchestration abilities also untie IT architects and data professionals from toiling over customizations and manipulations, **saving on labor costs**.

Generally, costs for cloud operation and storage **overall are lower** because all the equipment needed to serve your data is owned and operated by the cloud provider.

In fact, Forrester expects cloud adoption to grow even further tin 2021 and beyond. And Gartner estimates the ROI for cloud-based software is, on average, 55 percent lower than on-premises—though cautions that organizations should be prepared to tailor calculations to their own assumptions.

Prioritize ROI and opportunities

In addition, it pays to think about return (ROI) and prioritizing low hanging fruit—a more complex task than simply asking, "What takes out the most cost?"

Thoughtful sequencing and prioritization of low hanging fruit can then help fund more complex migrations. Consider the benefit of upgrading from disconnected, manual or outdated toolsets alone and you'll likely see immediate savings.

Prioritize the faster turnaround time and the decrease in errors also eminent from eliminating human touchpoints between systems. Just considering data entry elimination and audit upgrades offers much to think about.

Apart from cost, you'll still have to weed through the features, functions, benefits of different approaches and models to do what is best for your laboratory.

"Reduce the burden of buying up to five different systems with a single platform that can be configured to existing processes. The investment payback period is typically one year."

Kamal Biswas
President & COO, Xybion

The Final Word: Get started, now

In the end, the most important advice is to start **as soon as possible.** Many have waited years for a perfect system or have it put off because they don't have resources to deal with legacy systems or structure decades of work or handle political or organization issues.

Those entities are still waiting. But in the meantime, they continue to lose the potential, scalable, connected insights from the work they process daily.

Right now, is the best time to start. Action is always better than inaction. Especially when getting practical, workable advice is the first step.

About Xybion

We're Xybion and we specialize in purpose-built technology platforms.

In complex and highly-regulated industries, we help with lab management, compliance, risk, content and quality control. So you can easily create new platforms or transition legacy systems to the cloud with robust low-code, yet configurable, application modules.

Referred to as XDP, our underlying digital acceleration power is offered as a Platform as a Service (PaaS) and is quick to implement using our COTS programs. Our next generation software enables easy integration internally and with outside systems too, including suppliers, clients or CROs.

Cost-effective and highly-adaptable, our technologically-advanced platforms are designed for today's digital world by scientists for scientists—including *Xybion's Labwise XD* (a top 10 LIMS provider according to Pharma Tech Outlook.).

We'd love to show you how it all works. If you're ready to continue, schedule a demo or discover more about our full suite of products.

Pristima® XD
A total preclinical R&D management solution

QRM XD
A unified cloud-based Software for predictive compliance, quality and risk management

ECM XD
Enterprise content management for the digital age

Emidence® XD
Next gen workplace health safety quality management system

Labwise® XD
All in one digital lab management system

Up to **40%** productivity improvement, **speeding lab** processes

15 hours time saving per lab personnel each week

90% + Reduction in **data entry** issues

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