

Research Compliance and Animal Research Facility Management Software

Nine Questions Every Organization Should Ask Before Buying

Introduction

Animals have long been a fundamental component of laboratory-based research experiments that advance science, address ailments, and save lives. As the National Academies of Sciences, Engineering and Medicine notes, "By studying animals, it is possible to obtain information that cannot be learned in any other way."

To improve laboratory animal care quality, adherence to Good Laboratory Practices (GLP), and compliance with regulatory requirements and protocols, research institutions have increasingly turned to a wide range of purpose-built software solutions.

The efficacy and effectiveness of these solutions, however, vary greatly. Doing and getting accurate answers to the questions identified in this eBook will help investigators, administrators, compliance officers, technicians, and animal care professionals select the right software solution for their research-driven organization.



Comprehensiveness

Are all relevant research processes supported?

Many animal research facility and research compliance software solutions cover only one or a small subset of key research processes. This may be acceptable for select organizations with highly niched needs or extreme constraints, but buyers beware.

As organizations grow, research complexity increases, and additional features and functionality are needed, niche software is often supplemented by other narrowly focused or homogeneous tools. This approach leads to siloed activities, decreased accuracy, and slowdowns in processes.

Organizations should instead look to solutions that address their full range of research-related processes in a single, cohesive system. This enables everyone involved in these processes to quickly get the information they need to perform their roles the right way.

Protocol Management

Breeding or Colony Control

Husbandry

Tasks and Scheduling

Compliance

Animal Welfare

Analysis & Statistics

Training

Procurement

Regulatory Reporting

Billing

Experimental Use



Flexibility

Does the solution have the right range of options to mirror the organisation's uniqueness, preferences, and structures?

Software solutions should never have tradeoffs that sacrifice research process integrity, control, or security. Every organisation is different, and technology should support those differences, not work against them. For example:



If work is conducted across different regions and in different languages, interfaces, forms, and fields need to be able to maintain those characteristics.



If more than one species of animal is used in the organisation's research, separate software solutions or separate add-ons should not be needed to manage them.



If flexible workflows will accelerate reviews, approvals, and amendments, software with rigid protocols that won't allow for this should be avoided.



If a specific deployment option is desired, the organisation should be able to exercise it, whether cloud, on-premise, or both.

Compliance

Does the solution address the full range of review processes and ensure that users conform to requirements?

Organizations must be able to manage review processes effectively and efficiently for all applicable bodies – Animal Ethics Committees, Human Ethics Committees, Institutional Biosafety Committees, Conflict of Interest Committees, and more. Among other things, that requires:



Storing and cross-referencing protocols, reviews, and documents from one secure point.



Enabling time- and status-triggered alerts that reinforce deadlines and task completion.



Effective management of training records across the entire organization.



Automatic verification of content against administrator-defined rules.



Ready-made reports and documentation that satisfy region-specific regulations.



Animal Management and Tracking

How does the solution provide transparency and clarity into animal care and availability?

Research stakeholders need full transparency to proactively support the IBC and animal welfare. Solutions should enable real-time tracking to ensure accurate and consistent, meet defined criteria, full documentation of experimental uses for post-approval monitoring and compliance reporting, and the creation of extensive and complete animal history and health records.

For breeding processes, ensure support for all breeding lines, sex, and mating rules for every species (including mice, rats, nonhuman primates, etc.). Breeding support should also include the facilitation of mating, selection, pairing, and timings, as well as the ability to track gestations and impact genotyping results.

Validity of current and historic colony conditions, room capacities, and tanks need to be accessible on demand at all times. Look for the ability to produce and leverage digital cage cards and animal identifiers so that information flows freely and fully across every process, person, and system.

Integration

How seamlessly does the solution connect to other enterprise systems?

Mixing systems and activities introduces risk, inefficiency, and data integrity issues. Your animal research facility and research compliance software should be able to seamlessly connect all pertinent systems and data sources to present a centralized single-source-of-truth view of all needed information.

A key phrase here is “seamlessly connect.” That doesn’t mean limited input/output features and clunky data transfer tools that don’t follow best practices and/or right security policies. It means leveraging proven APIs and Web Services that make information access fast, simple, and secure.

“All pertinent systems” is another key phrase when it comes to integration. Ensure a solution’s ability to connect to the full range of systems and information you need, including Electronic Research Data Management (Lab Notebook), Finance and Procurement (ERP), Quality (QMS), Training Management (CTE), LMS (Learning Library), Authentication and Security (IAM), Regulatory Affairs (Clinical), Analytics platforms (PowerBI, Splunk), devices (scale, calipers), and more.

Configurability & Standardization

Can original settings be easily customized across your users and strengthen your program?

Software solutions shouldn't impose all the shelf settings that force suboptimal operations. When providers say "Here, we can make the adjustments you're asking for," get absolute clarity on how those adjustments will be made, who will make them, whether they require additional cost, and how long it will take.

For most scenarios, aim for configuration over customization. Configuration involves no coding needed modifications to elements of the software so that it supports your team members and programs in the best possible way. Customization, on the other hand, requires altering the foundational code of the software and usually comes with a hefty additional price tag and lengthy implementations.

Configurable components that add value to organizations include the ability to apply form modifications, define custom forms (e.g., questions, answers, problems, etc.), set field entry data types (e.g., text only, multiple vs. single selection, required/optional), numeric, etc.), and add contextual help text to guide users and promote accuracy.

Ease of Use

To what extent is the software intuitive and supported by industry experts during and after implementation?

Adoption and proper consistent use are both critical to maximizing software ROI. Assess how approachable and inherently understandable the platform's user interface and workflows are and, as noted previously, how easily they can be tailored to enhance your teams and processes.

Implementation practices also vary greatly across platforms. Determine the industry and research process expertise of those who would be involved in implementation. Beyond knowledge of the software itself, they should be able to apply deep experience and best practices in process analysis and modeling, system configuration and integration, and broader technical consulting.

Getting all research stakeholders off to a solid start and then having the right support resources available to them after implementation is key. Examine the depth of training that users and administrators will receive across every facet of the system. Determine the level of post-implementation support that will be provided as well, including whether it will entail additional costs.



Data Management and Reporting

Can users get the information they need, when they need it, and without difficulty?

To access the data they need to do their jobs, users shouldn't have to constantly jump across multiple systems and tools. Information should be centralized in one system so that everyone across the enterprise is operating on the same page. Organizations also need the right controls, including secure, protected access to data.

Additionally, reports on animal care and research processes shouldn't be limited to just what the software provider "thinks" an organization will need. Reporting should be able to support region-specific and process-specific requirements so that a complete picture of process performance is painted, and all regulatory directions are satisfied.

"Flexibility" is also an important concept here. It refers to whether a platform also allows users to go beyond standard reports and dynamically search across fields, queries, and templates to quickly surface the information they need to move things forward.

Task Automation and Efficiency

How does your solution save time for stakeholders and reduce administrative burdens?

Information from one part of the research process should flow seamlessly to the next, without requiring duplicate entry or extra effort from users. Animal research facility and research compliance software solutions should also reduce time spent on manual and clerical tasks so that research professionals can focus more on animal care and other higher priority activities. Look for capabilities such as:

-  Linking tasks to animals, users, and rooms to ensure completeness of records and proper data flow
-  Creating and configuring daily task lists, management reviews, requests, and approval workflows
-  Automating recurring manual tasks to improve accuracy and alleviate staff burdens
-  Developing process-specific dashboards and templates that provide helpful information and reminders
-  Applying knowledge, RPO, and individualized user capabilities



Nine Key Questions

1. Comprehensive

Does the solution address *all* relevant process processes supported?

2. Flexibility

Does the solution have the right range of options to meet the organization's unique needs, preferences, and structures?

3. Compliance

Does the solution address the full range of review processes and ensure that users conform to requirements?

4. Initial Management & Training

How does the solution provide transparency and clarity into initial use and availability?

5. Integration

How seamlessly does the solution connect to other enterprise systems?

6. Configurability

Can original settings be easily tailored to suit your users and strengthen your processes?

7. Ease of Use

To what extent is the software intuitive and supported by industry experts during and after implementation?

8. Data Management & Reporting

Can users get the information they need, when they need it, and without difficulty?

9. Task Automation & Efficiency

How does the solution save time for stakeholders and reduce administrative burdens?



About a-tune

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