

# **2016 LIMS MARKET RESEARCH SURVEY REPORT**



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### **WHAT COMPANIES HOPE TO ACHIEVE, AND WHAT NEEDS TO CHANGE TO HELP THEM GET THERE**

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#### **INTRODUCTION**

For many years, deployment of Laboratory Information Management Systems (LIMS) has been a mainstay of operations in modern R&D laboratories. While the potential to transform the efficiency of laboratory operations is great (especially when transitioning from paper), one can't simply expect that implementing a LIMS will solve all of the lab efficiency challenges. The implementation must be done as part of an overall strategic plan that is integrated across the enterprise in order to fulfill its full potential.

In order to determine whether LIMS deployments are achieving their promise, Astrix conducted a survey of over 100 professionals from companies with R&D laboratories in a number of different industries: biotech, pharmaceutical, CRO/CMO, software vendors, consumer products, energy, diagnostics/medical devices, food and beverage, and more. Nearly 50% of respondents came from companies with over 50 users accessing the LIMS. Our survey confirmed that most organizations recognize the value of LIMS, with nearly 90% of companies sampled utilizing at least one LIMS in their R&D laboratory. That said, our survey also revealed that user dissatisfaction with LIMS was high in a number of areas – the fact that LIMS were perceived to be difficult to use and lacked integration with other systems were the biggest complaints. Dissatisfaction with the current system was in fact the primary reason given by those companies looking to purchase a new LIMS.

A recent 2016 survey from Smartlab Exchange indicates that 80% of organizations have laboratory systems integration as a long-term strategic goal. Our survey confirmed through a number of different metrics that LIMS deployments are currently not integrated effectively. To understand these and other issues relating to successful LIMS deployment, read on.

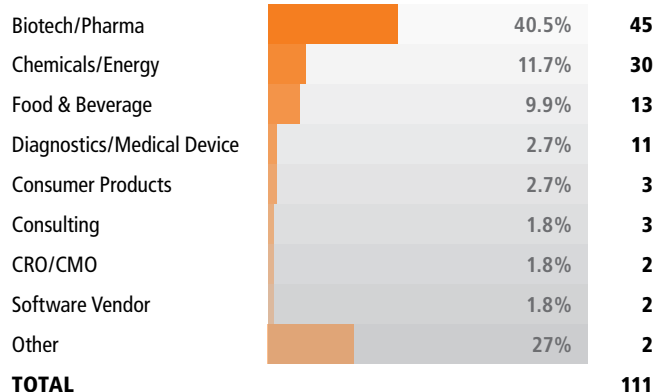
## ABOUT THE SURVEY

This article is based on a survey conducted by the Astrix Technology Group in December 2016. The survey was completed by over 100 senior R&D users from a number of industries: Biotech/Pharma (41%), CRO/CMO (2%), Consumer Products (3%), Chemicals/Energy (12%), Diagnostics/Medical Device (3%), Food and Beverage (10%), Other (27%). Over half of respondents (51%) identify themselves as LIMS users, while approximately 90% report that they are using at least one LIMS system today.

### Who took part

In order to understand the LIMS market needs, Astrix surveyed over 100 professionals from companies with R&D laboratories in a number of different industries.

Survey respondents were well distributed from small to very large organizations, across a variety of industries, 30%+ of which were BioTech/Pharma.

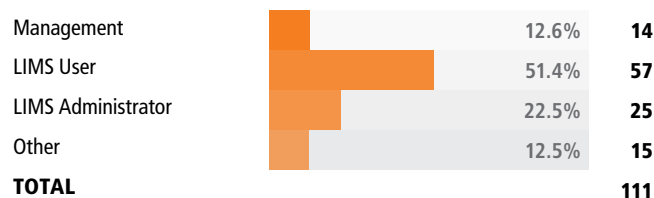


### Number of employees

Nearly 70% of survey respondents originated from companies with more than 500 employees.



### Job function related to LIMS

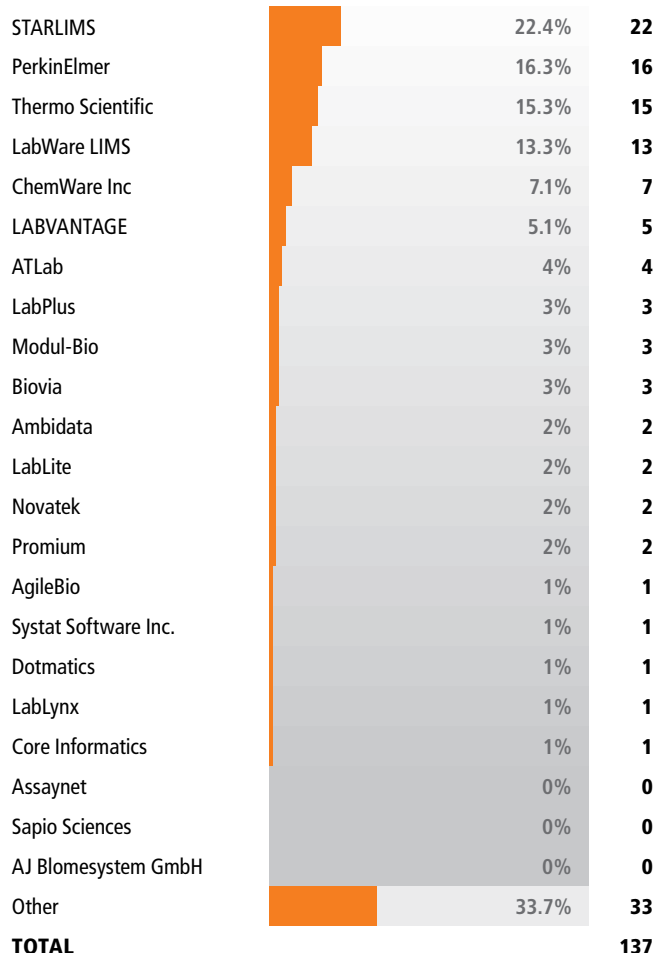


## THE CURRENT STATE LIMS ENVIRONMENT

### Which LIMS are the most popular?

The vast majority of companies surveyed were already using a LIMS.

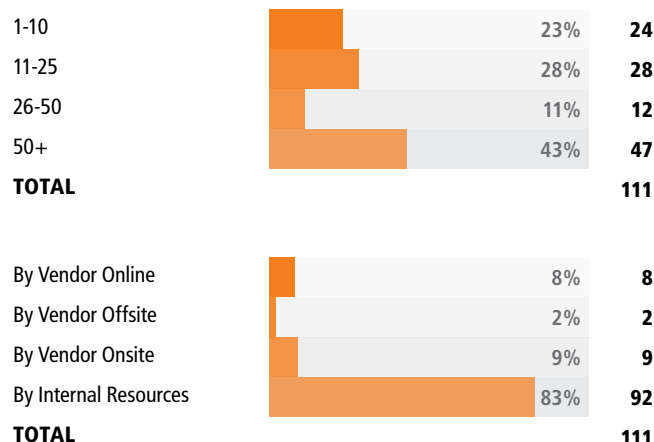
While STARLIMS systems were the most popular (over 20%), many different vendors were represented by the survey responses.



### How many users access the LIMS and how are they trained?

Nearly 50% of respondents came from companies with over 50 users accessing the LIMS.

The vast majority of these users were trained using internal resources.



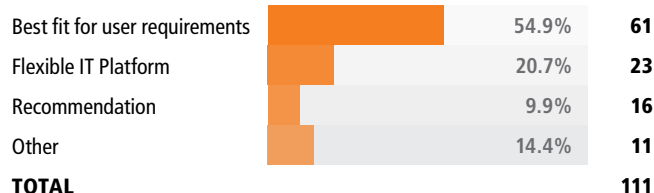
## LIMS Installation Configuration

Most installation configurations were client/server based (41%), followed by web-based (32%).



## What was the most important factor in choosing your current LIMS?

The most popular response (55%) was "Best fit for user requirements," followed by "Flexible IT platform" (21%).



## How does your LIMS affect the productivity of the lab?

Approximately 60% reported that LIMS increases the productivity of the lab, while 29% reported a neutral effect. Interestingly, nearly 11% reported that the LIMS system actually reduces productivity.



## How successful has the deployment been? What could be improved?

60% of respondents indicated that their LIMS increases productivity in the lab, while nearly 50% said that it strongly promoted data integrity. Lack of both integration with other systems and ease of use were the biggest complaints about LIMS.

### How well have you addressed data integrity with your LIMS implementation?

The majority of respondents felt that their current LIMS system strongly (44%) or moderately (31%) promotes data integrity.

Strongly promotes		44.1%	49
Moderately promotes		30.6%	34
Minimally promotes		5.4%	6
I don't know		11.7%	13
N/A		8.1%	9
<b>TOTAL</b>			<b>111</b>

### How well is your LIMS Integrated with other software applications?

Most respondents (43%) reported that LIMS was moderately integrated with other software applications.

Very well integrated		10.8%	12
Moderately integrated		43.2%	48
Not integrated		23.4%	26
Don't know		22.5%	25
<b>TOTAL</b>			<b>111</b>

### How many instruments are integrated with your LIMS?

About 30% of those surveyed responded that between 1-10 instruments are integrated with the LIMS system. Approximately 10% reported that more than 100 instruments were integrated.

1-10		32.4%	36
11-25		6.3%	7
26-50		11.7%	13
51-100		4.5%	5
100+		9.9%	11
Don't know		35.1%	39
<b>TOTAL</b>			<b>111</b>

## How customized is your LIMS system?

Most report that their LIMS implementation moderately (38%) or highly customized (28%). Very few reported that there was no customization whatsoever (6%).

Highly customized	27.9%	31
Moderately customized	37.8%	42
Minimal customization	18.9%	21
No customization	6.3%	7
Don't know	9%	10
<b>TOTAL</b>		<b>111</b>

## Why do companies purchase a LIMS and what factors do they look at when choosing a system?

Around 50% of respondents specified that sample management was the reason their company purchased a LIMS. Nearly 60% of respondents indicated that the decision of what LIMS vendor to go with was based on what would be the best fit for the LIMS user requirements – only 20% said that the determining factor was a flexible IT platform that allows for better system integration.

Sample management	50.4%	56
Regulatory management	12.6%	14
User reporting	3.7%	4
QA/QC	11.7%	13
Invoicing	—	—
Workflow automation	4.5%	5
Instrument connection	1.8%	2
Chemical inventory	8.1%	9
Other	7.2%	8
<b>TOTAL</b>		<b>111</b>

## What percentage of companies have plans to purchase/upgrade a LIMS, and why?

Our survey revealed that many respondents were not aware of whether their company plans to purchase or upgrade their LIMS system. Of those companies planning to purchase a new LIMS, nearly 40% were doing so to upgrade from their existing system.



## THE FUTURE STATE LIMS ENVIRONMENT

### What are your purchase plans?

Our survey respondents revealed that over 40% of organizations have no plans to purchase or replace a LIMS at this time. Nearly 40% of respondents did not know if their organization was planning to purchase or replace a LIMS. Of those companies that were revealed by respondents to be planning to purchase or replace a LIMS (22), 40% (9) had just begun the review process.

Starting the review process	8.1%	9
Purchase in next 1-6 months	5.4%	6
Purchase in next 6-12 months	2.7%	3
Purchase in next 12+ months	3.6%	4
No current purchasing plan	43.2%	48
Don't know	36.9%	41
<b>TOTAL</b>		<b>111</b>

### What is the primary reason for investing in a LIMS?

36% of respondents reported that they planned to invest in a LIMS in order to upgrade an existing system.

Upgrading existing LIMS	36%	40
Adding to existing systems	10.8%	12
Setting up a new lab	0.9%	1
Sample management	7.2%	8
Regulatory management	3.7%	4
User reporting	0.9%	1
QA/QC	3.7%	4
Invoicing	—	—
Workflow automation	5.4%	6
Web-based access	4.6%	5
Other	27%	30
<b>TOTAL</b>		<b>111</b>



## What key features do you wish your LIMS had but does not?

- User friendly query assistant.
- Support for scanning images and linking to records.
- Support for mobile device data & transfer for field data.
- Better UI, more comprehensive auditing, diagnostics and error correction tools.
- Native web client with no thick client or Citrix needed.
- Easy integration to external databases.
- Ability to track reagent QA/QC requirements.
- Fewer steps to get to different tasks.
- Better user interface.
- Independence from the provider.
- Easy customization by local system manager.
- End to end integration of workflow processes – like ELN.
- ISO auditing reports or checklists that can be made into reports.
- Easy instrument integration and reporting.
- Consumables batch lot traceability throughout life of sample; granular metrics, user friendly export to Excel.

## What are the greatest challenges you want to address in the future?

Most reported that ease of use was a major challenge (32%), followed by lack of integration/communication with other systems (29%).

Ease of use	31.5%	35
Training	12.6%	14
Disconnected system	28.8%	32
System is outdated	11.7%	13
Other	15.3%	17
<b>TOTAL</b>		<b>111</b>

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## CONCLUSION

The 2016 LIMS Market Research Survey shows that companies in a variety of industries who rely on LIMS for laboratory workflows face a number of common challenges, including outdated technology platforms, lack of integration with other systems, usability, and overall supportability.

But the survey also reveals the important benefits that companies realize from their LIMS investment, including increased productivity and better data integrity. Despite the benefits, it is clear that there is work to do for both LIMS vendors and the developers who support the platforms. As the pace and complexity of R&D continues to increase, it will become increasingly important to modernize the LIMS platforms — to ensure that it supports efficiency and innovation for modern laboratories.

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## ABOUT US

### **Scientific resources and technology solutions delivered on demand**

Astrix Technology Group is an informatics consulting, professional services and staffing company dedicated to servicing the scientific community for over 20 years. We shape our clients' future, combining deep scientific insight with the understanding of how technology and people will impact the scientific industries. Our focus on issues related to value engineered solutions, on demand resource and domain requirements, flexible and scalable operating and business models helps our clients find future value and growth in scientific domains. Whether focused on strategies for Laboratories, IT or Staffing, Astrix has the people, skills and experience to effectively shape client value. We offer highly objective points of view on Enterprise Informatics, Laboratory Operations, Healthcare IT and Scientific Staffing with an emphasis on business and technology, leveraging our deep industry experience. Visit [astrixinc.com](http://astrixinc.com) for more information.

