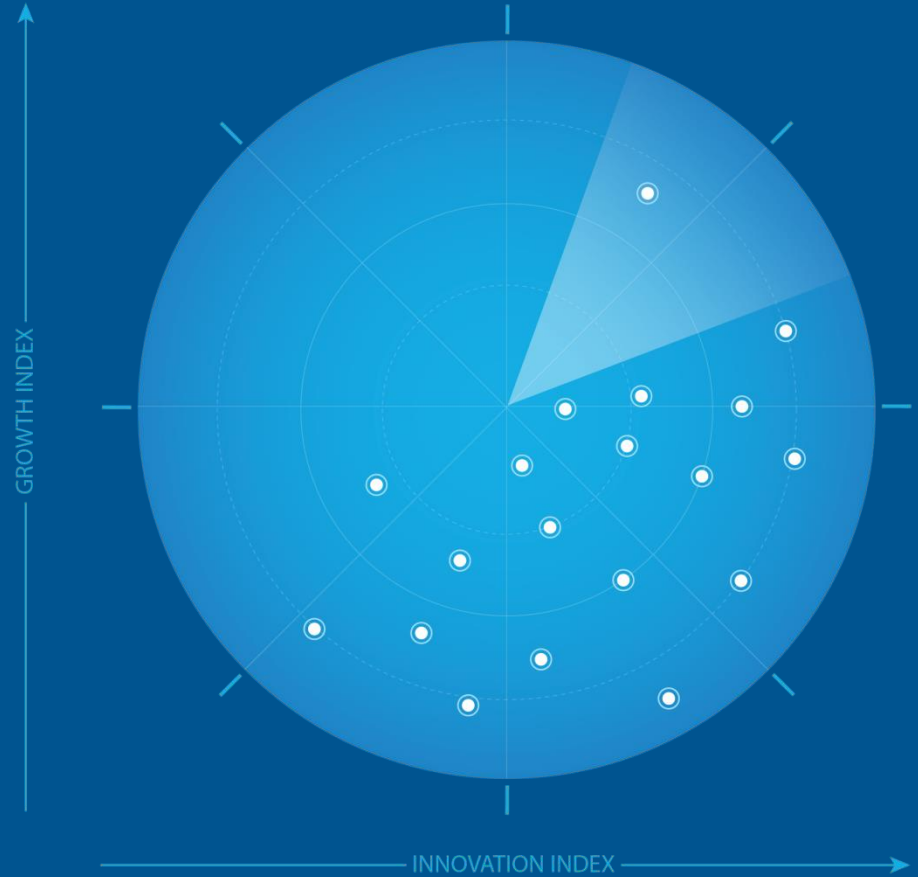


Frost Radar™: Laboratory Information Management Systems for the Life Sciences Industry, 2023

Authored by: Piyush Bansal

A Benchmarking System
to Spark Companies to
Action - Innovation That
Fuels New Deal Flow and
Growth Pipelines



Strategic Imperative

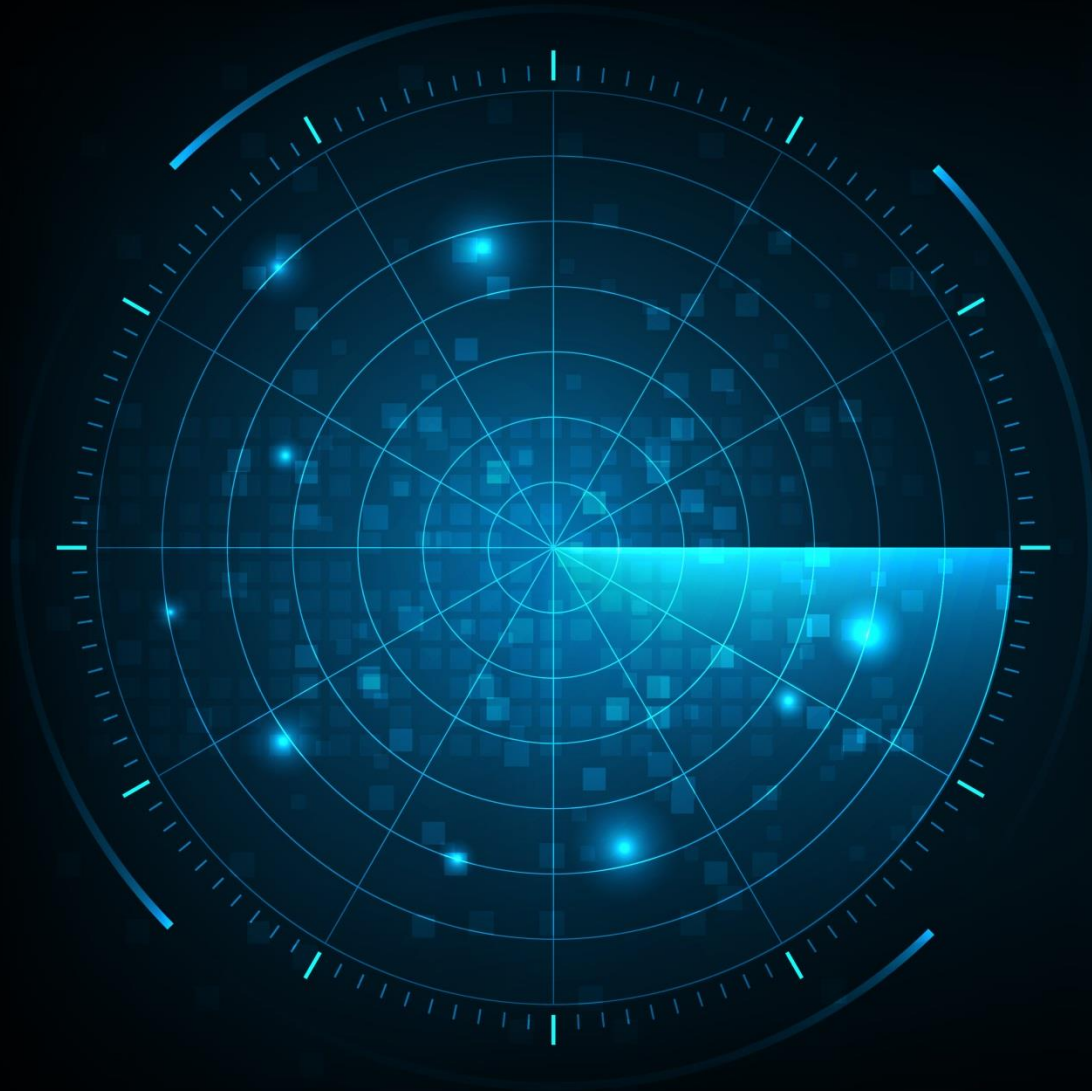
- The life sciences industry is undergoing a swift digital transformation as it strives to conduct research and innovate efficiently and precisely. Most pharma companies are challenged to become more efficient as massive profits of the blockbuster drugs quickly erode because of patent expiry and healthcare payers continuously apply price pressure.
- Diagnostics and academic labs are also under pressure to reduce their costs because of economic uncertainty and a push from healthcare payers to reduce overall healthcare costs.
- The COVID-19 pandemic catalyzed digitalization, generating an unprecedented demand for secure, cloud-based LIMS and ELN systems that facilitated efficient remote work practices, ensuring uninterrupted operations and safety protocols.
- LIMS vendors have been pursuing cross-industry growth opportunities. An example is collaboration with cloud computing providers to develop cloud-based LIMS solutions.
- Laboratories are taking advantage of the scalability, accessibility, and cost-effectiveness of cloud storage while still benefiting from the functionality and flexibility of LIMS software.
- Pharmaceutical companies are partnering with LIMS vendors to develop specialized solutions that satisfy the unique needs of their industry, including better management of R&D processes, compliance with regulatory requirements, and operational efficiency.

Growth Environment

- The life sciences LIMS market is heterogeneous, with solutions from large research tool vendors (e.g., Thermo Fisher and Waters Corporation) and core lab IT solutions companies (e.g., LabVantage, LabWare, Benchling, and Dassault Biovia).
- The number of industry partnerships has significantly increased, with several of these aimed at access to NLP and machine learning capabilities, implementation of AI, and development of new solutions. Lower entry barriers have allowed several new entrants and resulted in more intense competition, especially for small to mid-sized pharma companies and academic labs.
- The global LIMS market for the life sciences industry is valued at about \$1 billion and expected to exhibit annual growth between 12% and 14% over the next few years. Frost & Sullivan expects the user base to increase by 10% to 12% annually, but average per-user prices will continue declining amid intense competition. Companies will need more value-added features to increase their per-user income.
- While there is still huge potential for growth in the United States and Europe, vendors will start considering the underpenetrated Asia-Pacific and Middle East regions for their significant revenue opportunities.

Growth Environment (continued)

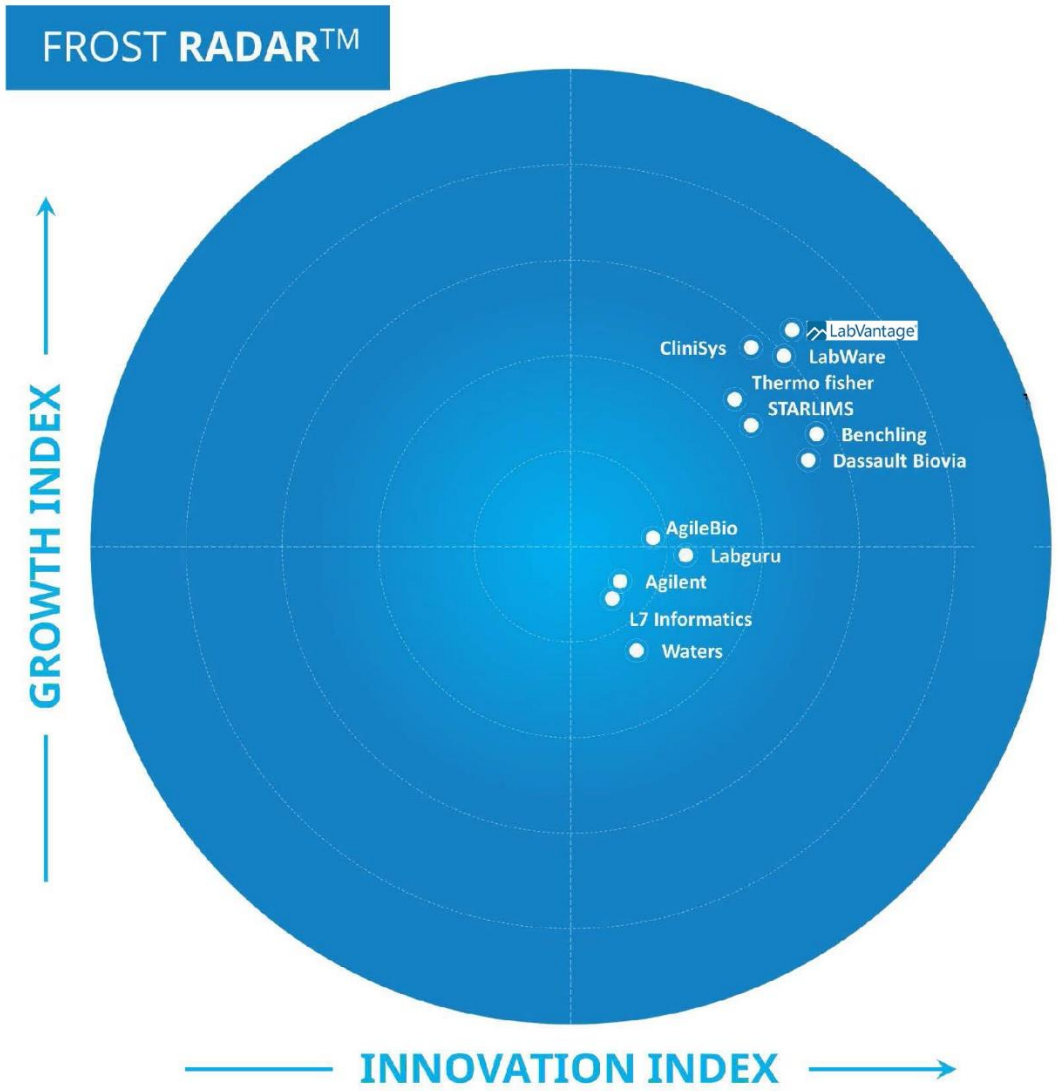
- The laboratory ecosystem is complex and requires tailored solutions for specific needs. The full potential of an ELN or LIMS system cannot be realized when used in isolation; integration with instruments and other software is essential for seamless functionality and optimal performance. To achieve this, companies are gradually making ELN and SDMS a part of LIMS offerings and looking to shift their offerings toward lab informatics (LabVantage and Benchling are already doing this and will likely have a first-mover advantage in this area). One reason for this shift is market fragmentation, with little scope for differentiation in traditional LIMS offerings. As a result, Frost & Sullivan anticipates industry consolidation through mergers and acquisitions in the next three to five years as companies synchronize objectives and strategies.



Frost Radar™

**Laboratory
Information
Management Systems
for the Life Sciences
Industry**

Frost Radar™: Laboratory Information Management Systems for the Life Sciences Industry



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Competitive Environment

- Frost & Sullivan screened more than 120 LIMS solution vendors for the life sciences industry (the top 10 have a combined market share between 50% and 55%) and shortlisted 25 for a more detailed analysis of their corporate growth potential and ability to drive visionary innovation. Of these, 12 represent best-in-class solutions based on their features, capabilities, data integrity, interoperability, and informatics and analytics applications. Companies are redefining their solutions from sample management to lab informatics and analytics.
- The Frost Radar™ features AgileBio, Dassault Biovia, LabVantage Solutions, Benchling, Labguru, CliniSys, LabWare, L7 Informatics, Waters Corporation, STARLIMS, Thermo Fisher Scientific, and Agilent Technologies.
- Frost Radar™ Growth and Innovation leaders like LabVantage stand out because of their continuous innovation, comprehensive LIMS functionalities for life sciences companies, and regional commercial capabilities.

Significance of Being on the Frost Radar™

Companies plotted on the Frost Radar™ are the leaders in the industry for growth, innovation, or both. They are instrumental in advancing the industry into the future.

GROWTH POTENTIAL

Your organization has significant future growth potential, which makes it a Company to Action.

BEST PRACTICES

Your organization is well positioned to shape Growth Pipeline™ best practices in your industry.

COMPETITIVE INTENSITY

Your organization is one of the key drivers of competitive intensity in the growth environment.

CUSTOMER VALUE

Your organization has demonstrated the ability to significantly enhance its customer value proposition.

PARTNER POTENTIAL

Your organization is top of mind for customers, investors, value chain partners, and future talent as a significant value provider.

Companies to Action: LabVantage

INNOVATION

- LabVantage offers a comprehensive portfolio of LIMS solutions, ELN, laboratory execution system (LES), SDMS, and analytics products. The company scored a 4.35 on the Innovation Index, highlighting its commitment to continued innovations.
- The company has adopted a hybrid approach of internal R&D and external partnerships to gain access to new technology and strengthen its product portfolio. It is investing in AI and NLP for handling scientific and unstructured data. It acquired knowledge management software company Biomax Informatics in 2022 to better develop and integrate machine learning and NLP applications for scientific knowledge management.

GROWTH

- Since its inception in 1981, LabVantage has demonstrated continued growth in revenue and number of clients. The company supports more than 1,500 clients, of which a large portion are in life sciences.
- The company earned a 4.25 score on the Growth Index, based on its consistent growth trajectory over the past few years, high market share, and ability to capitalize on new growth opportunities in this highly contested market.
- The company's strategy centers on achieving organic growth, solid margins, free cash flow generation, and value-accretive acquisitions.

FROST PERSPECTIVE

- LabVantage has a best-in-class LIMS solution, reflected in its consistent growth and strong portfolio pipeline. Given its proven ability to scale continually, it has the potential to set an industry benchmark.
- The company has a competitive product portfolio to support the needs of enterprise biotech customers. It should go aggressive to target this customer group to increase revenue and gain a larger market share.

Companies to Action: LabVantage

INNOVATION

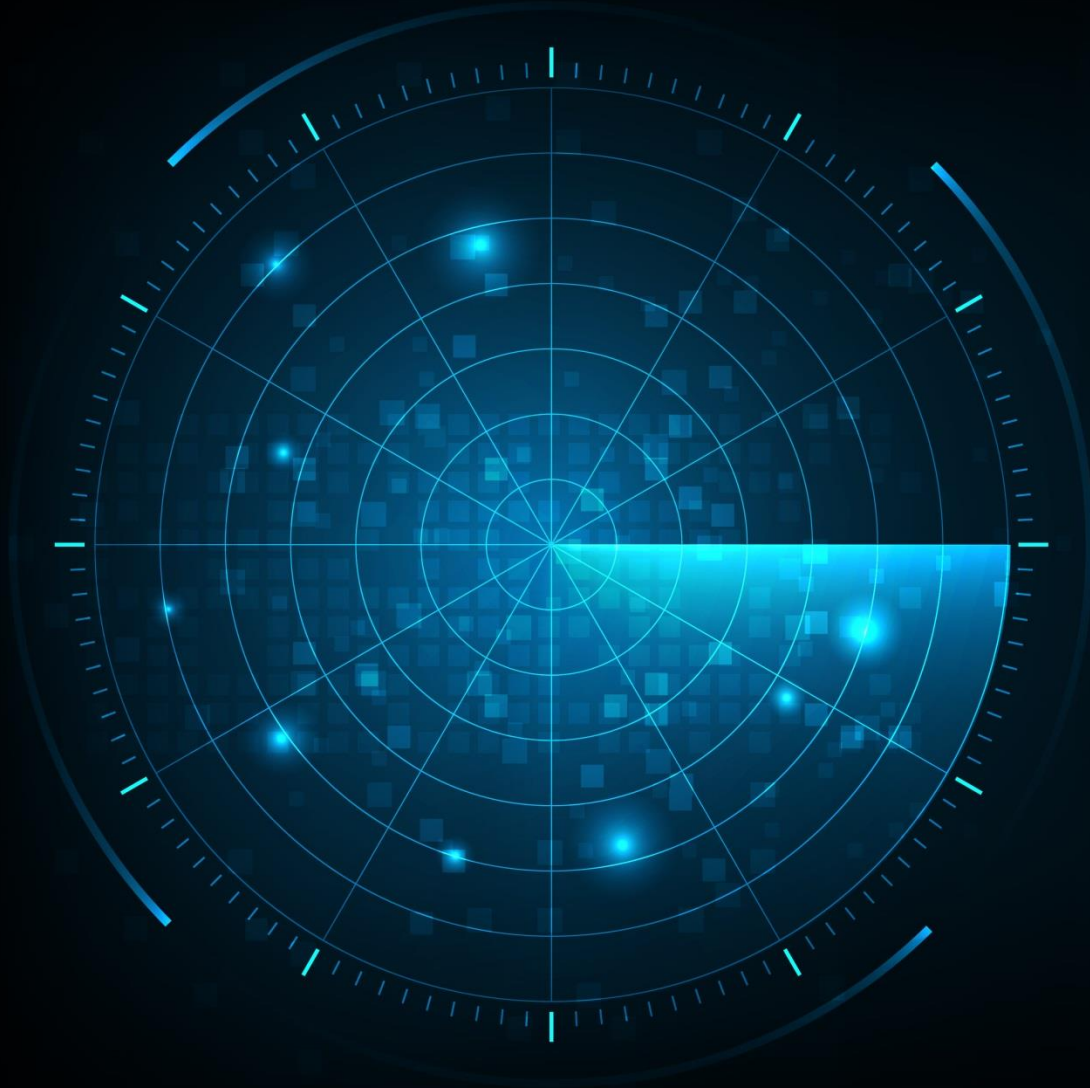
- Based on integrating the Biomax platform, the company recently launched an additional tool: AILANI (Artificial Intelligence Language Interface). It combines semantic modeling, ontologies, linguistics, and AI algorithms to allow time-saving query-based research in in-house and external databases.
- Application-specific software solutions differentiate LabVantage. It has developed prepackaged LIMS solutions for biobanking, diagnostics, pharma manufacturing QA/QC labs, and biotech. These solutions are embedded with ELN, LES, and SDMS, as well as an advanced analytics solution.

GROWTH

- The company has taken a hybrid approach to sales and marketing. Its sales team focuses on the United States and Europe, and distributor partnerships handle other locations. It relies on local third-party vendors for customer service and after-sales support.

FROST PERSPECTIVE

- LabVantage should focus on user-centric product design and features to improve functionality and customer experience. As the platform advances and expands to a larger set of users, ease of use and implementation will be important for performance.



Frost Radar™

Analytics

Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

VERTICAL AXIS

Growth Index (GI) is a measure of a company's growth performance and track record, along with its ability to develop and execute a fully aligned growth strategy and vision; a robust growth pipeline system; and effective market, competitor, and end-user focused sales and marketing strategies.

GROWTH INDEX ELEMENTS

- **GI1: MARKET SHARE (PREVIOUS 3 YEARS)**
This is a comparison of a company's market share relative to its competitors in a given market space for the previous 3 years.
- **GI2: REVENUE GROWTH (PREVIOUS 3 YEARS)**
This is a look at a company's revenue growth rate for the previous 3 years in the market/industry/category that forms the context for the given Frost Radar™.
- **GI3: GROWTH PIPELINE**
This is an evaluation of the strength and leverage of a company's growth pipeline system to continuously capture, analyze, and prioritize its universe of growth opportunities.
- **GI4: VISION AND STRATEGY**
This is an assessment of how well a company's growth strategy is aligned with its vision. Are the investments that a company is making in new products and markets consistent with the stated vision?
- **GI5: SALES AND MARKETING**
This is a measure of the effectiveness of a company's sales and marketing efforts in helping it drive demand and achieve its growth objectives.

Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

INNOVATION INDEX ELEMENTS

HORIZONTAL AXIS

Innovation Index (II) is a measure of a company's ability to develop products/services/solutions (with a clear understanding of disruptive Mega Trends) that are globally applicable, are able to evolve and expand to serve multiple markets, and are aligned to customers' changing needs.

- **II1: INNOVATION SCALABILITY**

This determines whether an organization's innovations are globally scalable and applicable in both developing and mature markets, and also in adjacent and non-adjacent industry verticals.

- **II2: RESEARCH AND DEVELOPMENT**

This is a measure of the efficacy of a company's R&D strategy, as determined by the size of its R&D investment and how it feeds the innovation pipeline.

- **II3: PRODUCT PORTFOLIO**

This is a measure of a company's product portfolio, focusing on the relative contribution of new products to its annual revenue.

- **II4: MEGA TRENDS LEVERAGE**

This is an assessment of a company's proactive leverage of evolving, long-term opportunities and new business models, as the foundation of its innovation pipeline. An explanation of Mega Trends can be found [here](#).

- **II5: CUSTOMER ALIGNMENT**

This evaluates the applicability of a company's products/services/solutions to current and potential customers, as well as how its innovation strategy is influenced by evolving customer needs.

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