

Accelerate Innovation: The Business Case

Your R&D team needs insights from good data to guide decisions, generative AI to accelerate discovery, and simpler workflows to integrate research and manufacturing. This is how to get there.

When you move too slowly, the market moves on

Companies in all industries rely on the speed of their internal innovation cycles to help them stay competitive in a market focused on continuous change and improvement.

But moving quickly from discovery to development to commercialization isn't easy. Many organizations find their research programs bogged down by overly complex workflows, unmanageable data warehouses, and segmented overhead infrastructures that prevent R&D and manufacturing teams from moving forward in lockstep.

To overcome these barriers, innovators need tighter collaborations between their internal functions (labs, manufacturing, and quality teams) and the external drivers that shape their business priorities, such as customers and commercial partners.

Part culture, part corporate commitment, the truth about collaboration is that it's enabled by one crucial element: data. Access to high-quality, real-time scientific data and data analytics is the key to building productive relationships within your organization and outside of it, enabling faster decision-making and better, more rapid business outcomes across the full research and manufacturing value chain.

To get there, your company needs an integrated data analysis environment with a reliable throughline to accurate, readily available, and contextualized internal and external data.

Not sure how to start? Good news—the life science industry has already drawn a map.



Lessons from the life sciences: Putting R&D on the fast track

Patients depend on life science companies to bring new drugs to market quickly. But speed is elusive in an industry traditionally limited by breakdowns between R&D and manufacturing, scale-up challenges, supply chain turbulence, and complex development pathways and regulatory frameworks.

Despite these well-established challenges, the life science industry discovered, approved, and deployed COVID-related therapies in only two years—an extraordinary feat. To do that, they leveraged high-quality, real-time scientific data to compress years-long innovation timelines into just a few months. How? By jettisoning sluggish conventional approaches to designing experiments and exchanging clinical results in favor of real-time, digitally enabled access to high-quality scientific data.

It wasn't only about access to that data, though—it was about analysis, and the application of predictive AI models to contextualize trial data and rapidly identify vaccine candidates with a high probability of success. Using AI-driven platforms, life science companies were also positioned to identify and proactively resolve potential manufacturing challenges and supply bottlenecks, accelerating downstream decision-making and effectively clearing the road for rapid commercial scale-up the moment new formulations received approval.



This collaborative, data-driven approach to scientific discovery has fundamentally changed the life science landscape, but it doesn't have to stop there. Companies in all industries can adopt these lessons to get out of their own way, get better returns from their investment in innovation, and get more life-enhancing products to market, faster.

Rapid innovation starts with the right solutions, combined in the right way

Originally designed to accelerate drug discovery and clear the go-to-market pathway for precision medications, the LabVantage suite of AI-powered solutions now helps product innovators across many industries move at warp speed.

R&D ACCELERATION IN ACTION

Using the LabVantage suite of technologies, R&D labs in our customers' organizations have achieved:

- 50% reduction in analysis effort
- 60% reduction in validation effort
- \$1M reduction in cost per lab

We help our customers eliminate R&D speed traps, build simplified organization-wide workflows, and enable a new integrated data environment that drives fast and forward-looking decisions using a variety of fit-for-purpose solutions:

The LabVantage LIMS platform

Designed to work the way you do, our fully integrated, no-code lab informatics platform provides a single, scalable, easy-to-navigate interface for accessing LabVantage's Laboratory Information Management System (LIMS), Electronic Lab Notebook (ELN), Lab Execution System (LES), Scientific Data Management System (SDMS), and advanced analytics.

LabVantage Analytics, powered by tcgmcube™

Accelerate discovery, increase lab throughput and reduce downtime with the AI-powered predictive analytics solution that connects users to actionable business insights. With LabVantage Analytics, innovators gain:

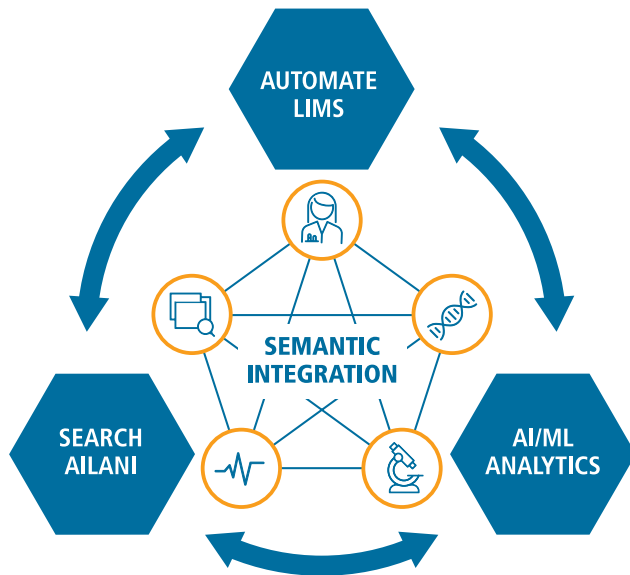
- A single source of truth for all internally generated structured and unstructured data.
- Interactive visualizations and dashboards with drill downs.
- A rich library of 1000+ statistical and AI/ML models which supports low-code AI workflows.
- And much more

AILANI for semantic integration and search

Our deep learning platform gives your R&D team the analytical skills of a data scientist with the speed and super-intelligence of advanced AI-driven algorithms. Using the intuitive interface to answer their R&D questions across proprietary and public sources, the AILANI platform will:

- Recognize users' original intentions and search for relevant insights across disparate data sources.
- Discover hidden relationships, facilitate groundbreaking research, and promote interdisciplinary collaboration of the kind known to leading life science innovators.
- Give teams access to the data lake house (see image on following page) a new data architecture that meets today's need for rapid analysis of diverse internal and external data types.

Empowering R&D



Our unique combination of technologies deliver value at every step, with tangible benefits.



Increase Competitiveness by reducing the time from R&D findings to new production processes or product



Increase Efficiency by enabling actionability of data through adherence to FAIR data principle



Accelerate Innovation by empowering analytics and AI in a controlled way

When you're in the driver's seat of R&D innovation, you set the speed

If your growth is constrained by the lack of a targeted, highly efficient research funnel that handshakes closely with your manufacturing operation, LabVantage has the solution. We built our technologies with challenges just like yours in mind—technologies designed to help you

respond more rapidly and collaboratively to new discoveries, shifts in market demand, and the evolving needs of your partners and customers.

When you're ready for more simplicity, smarter workflows, and a blazing-fast innovation pathway that's driven by data and analytics and aligned with your business goals, let's talk.

LEARN MORE about LabVantage Analytics at labvantage.com/informatics/analytics



LabVantage Solutions, Inc.
265 Davidson Avenue, Suite 220
Somerset, NJ 08873
Phone: +1 (908) 707-4100

www.labvantage.com

ABOUT LABVANTAGE SOLUTIONS

A recognized leader in enterprise laboratory software solutions, LabVantage Solutions dedicates itself to improving customer outcomes by transforming data into knowledge. The LabVantage informatics platform is highly configurable, integrated across a common architecture, and 100% browser-based to support hundreds of concurrent users. Deployed on-premise, via the cloud, or SaaS, it seamlessly interfaces with instruments and other enterprise systems – enabling true digital transformation. The platform consists of the most modern laboratory information management system (LIMS) available, integrated electronic laboratory notebook (ELN), laboratory execution system (LES), and scientific data management system (SDMS); and, for healthcare settings, a laboratory information system (LIS). We support more than 1500 global customer sites in the life sciences, pharmaceutical, medical device, biobank, food & beverage, consumer packaged goods, oil & gas, genetics/diagnostics, and healthcare industries. Headquartered in Somerset, NJ., with global offices, LabVantage has, for four decades, offered its comprehensive portfolio of products and services to enable customers to innovate faster in the R&D cycle, improve manufactured product quality, achieve accurate record-keeping, and comply with regulatory requirements.

For more information, visit www.labvantage.com.