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ON CITECH OUTLOOK

LABORATORY AUTOMATION EDITION NEW-AGE LAB AUTOMATION SPECIALISTS







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TOP LABORATORY AUTOMATION SOLUTIONS PROVIDER 2023

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COVER STORY





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NEW-AGE LAB AUTOMATION SPECIALISTS

riven to do more with less, laboratories are leveraging automation to increase the efficiency of their workflows while minimizing human error. But laboratories vary in size and have distinct processes, making it difficult to find a single solution for all.

Optimize Laboratory Consultants, a scientific consulting

Optimize Laboratory Consultants, a scientific consulting organization, helps laboratories augment their workflows and boost productivity with its wide variety of customized development and support services in the lab automation space.

"As former scientists, we speak the same language as our customers, which helps us understand all their requirements and propose an ideal solution tailored to their business goals," says Daniel Leach, CTO of Optimize Laboratory Consultants.

For instance, many small-scale laboratories new to automation need help to make the most of their investment in improving the accuracy and productivity of their operations. At the same time, big players in the industry that have already invested heavily in automation may struggle to cope with the complexity of managing multiple technologies across different workflows.

Whether helping a clinical, genomics, or forensics testing laboratory simplify equipment handling or assisting an international pharmaceutical company cost-effectively streamline its complex laboratory workflows, Optimize has them covered

It has helped many laboratories in difficult positions in the aftermath of the COVID-19 pandemic. Their massive investments in automated instrumentation to fulfill peak testing demands during the crisis offer diminishing returns with each

passing day. They need advice on repurposing those systems according to their current scope of projects.

Many are looking to integrate multiple instruments into a single platform and gain better visibility into their operations. They are also keen to incorporate collaborative robotics for tasks like cultivating and transferring cells and testing samples in a centrifuge with increased reliability. This will help free up workers to use their specialized knowledge to improve laboratory research in other ways.

Aware of these disparities in the automation needs of different laboratories, the team of former scientists at Optimize use their practical knowledge from years of experience in lab operations to offer customized solutions.

The a la Carte Approach

At the heart of Optimize's services lies customer-centricity, which is evident in its approach of partnering with every client.

Unlike vendors looking to sell a particular product and trying to convince clients of its benefits, Optimize's experts suggest what is required to achieve business goals.

"When we get involved in client processes at a very early stage, it becomes easier to take all the complexities away from their lab workflows and deliver a sophisticated solution that helps them function seamlessly," says Kristine Kearns, COO of Optimize Laboratory Consultants.

It engages in a long-term collaboration with the client to gain a detailed overview of their business goals, the growth, cost, space, and resource-specific constraints, and the modifications they want in their systems. Based on these factors, Optimize provides the most tangible technological and operational upgrades.

Post-consultation, the Optimize team works on continued improvements to the workflows clients have designed. It also trains their staff to learn new or existing instrumentations to alleviate repetitive tasks and become proficient in managing complex laboratory workflows.

To assure clients are judicious in their investments and not just buying equipment based on a salesperson's suggestion, the Optimize team offers advisory services to validate every piece of equipment or tech tool, before they buy.

An Exceptional Talent Pool

While laboratory automation is rapidly evolving, it is a relatively young industry. Finding staff, scientists, or automation engineers with significant experience is challenging.

The Optimize team stands out in the market for members who having far-reaching experience across science, automation technology, software development and system design.



Having worked as an application specialist for many years, Daniel was instrumental in designing advanced instrumentation and tools before growing his automation expertise and understanding of lab needs as a Laboratory Director.

Kristine, working at a global pharmaceutical company for many years was an automation visionary, involved in system conceptualization, system design, development, validation & project management; managing a group of automation engineers & scientists responsible for a huge fleet of automation platforms/systems utilized across a wide range of assays in vaccine research.

Coalescing their proficiencies in both process development and analytical procedures, Daniel, Kristine and the team of talented scientists help clients integrate multiple vendors and equipment to create robust automation workflows.

Post-implementation, the team guides clients through workflow changes. To ensure effective use of automated systems, it offers extensive training services. This encompasses familiarizing clients with the workflows or even managing software interfaces.



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The team also offers regular maintenance and technical support to promptly address issues and keep the system running optimally. When it comes to technical assistance, the experts at Optimize apprise clients of new feature updates in software tools to keep them abreast of the latest technological developments.

Tokens of Success

Among the numerous instances of excellent service, a notable example was when a client was assisted in scaling existing technology for microscale chromatography.

The client had spent substantial money on a standard chromatography solution and quickly realized it would not meet their current or long-term objectives. This marked the beginning of their extended business relationship with Optimize.



After analyzing the client's situation and needs, Optimize devised a roadmap for modifying the standard solution and delivering an upgraded one that met the ultimate objectives.

The system has been evolving on the back of a long-term development roadmap, with all timelines, projects, and costs managed. Over the years, Optimize has continued to make significant software modifications.

Considering the rate at which the scope and scale of experimentation in laboratory services is growing, many labs want to create a one-stop platform to automate their entire workflow and include devices that were not designed with automation in mind. This indicates that market growth will continue with more laboratories embracing AI- and ML-powered tools to automate data handling and make more strategic decisions.

Optimize is determined to capitalize on this market development and help companies integrate different technologies to further augment their lab operations. At the juncture of transformative developments in the lab automation space, it plans to help more laboratories harness the full potential of automated workflows.