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ASIA EDITION

"We see growing interest of healthcare testing labs, Pharmaceutical QC and R&D labs in implementing next-gen lab automation solutions"

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US-based Abbott Informatics, formerly known as STARLIMS, is one of the companies with a long and established presence in the space of lab automation. Taking pride in offering the world class technological solutions, the company has recently announced the launch of STARLIMS Quality Manufacturing Solution QM12.2 which is built on the latest STARLIMS Technology V12 platform, along with STARLIMS SDMS (Scientific Data Management System) V12.2. To find out more about the company's automated offerings in India, BioSpectrum spoke to Pradeep Nagisetty, Regional Sales Manager - India & Sub Continent, Abbott Informatics - STARLIMS, Hyderabad.

Can you tell us about the major product releases of STARLIMS since 2020?

It's the result of regular collaborations with our fantastic customer base, allowing us to hear from those that will benefit the most from this. We then take into consideration the overall market trends to enable our R&D and product teams to incorporated this feedback into new product releases, technology upgrades, critical bug fixes, data integrity improvement, performance improvements and cyber security enhancements. Our commitment to continual releases and improvements provides our customers with a LIMS solution that will remain relevant.

Since 2020, we have already released two minor versions of STARLIMS QM solution for the pharmaceutical and other manufacturing industries. We offer an Automated Validation Framework and Testing Kit that reduce the time, cost, resources and complexity over the manual testing methods. With STARLIMS QM V12.2 released in April 2021, we have

brought new integration capabilities – SAP4/HANA Integration, interface with Biovia Draw and Biovia Direct for chemical structures, Thermo Chromeleon 7.3 CDS interface upgrade, Waters Empower 3 FR5 CDS interface upgrade.

This year we have the new SDMS product – Scientific Data Management System. A standalone SDMS software that helps with automatic lab equipment integration, raw data and process data capturing, data storage in folders, search and reporting, long term data storage and archival, assuring highest data integrity in the regulatory labs.

For the first time, we launched LES – Lab Execution System product. With our LES, our customers can ensure Standard Operating Procedures (SOPs) are being followed and tasks are being developed in a compliant and controlled manner for regulated labs. This is a fully touch enabled interface system that works seamlessly on smart devices and is fully mobile enabled in the labs.

We have a very strong roadmap in place and will bring more advanced products and tools to the market continually.

What are the major challenges for companies in life science sector in India?

For companies in this sector, challenges include the need to digitize and make legacy data accessible and searchable so that drug development workflows that were generated and undertaken decades ago are still relevant going forwards, and on the other hand to incorporate the latest high-throughput technologies, such as next-generation sequencing, and other high–throughput and high content workflows, into the drug development and testing processes.

There are a few other challenges such as pandemic uncertainty in prioritization of CAPEX, resource and time investments by customers; travel and other administrative challenges in sales, implementation and support services; data accessibility and unavailability of required internet bandwidth connectivity; shortage of human resources who have best of the breed skill set.

Addressing these challenges with our customers across the life science is what sets Abbott Informatics apart. STARLIMS has been developed to adapt to the particular challenges of the life science industry, from pharma manufacturing QC to outsourced testing, and R&D, which has to manage data from laboratory testing across the four pillars of a product life cycle; research and preclinical, clinical, manufacturing and post-market surveillance, in the global context of that product's development.

How do you foresee the long-term adoption of lab automation in the life science sector in India?

It is extremely demanding and we see steady growth and YoY opportunities in life science, biotech, commercial contract testing labs, specialty chemicals and other key manufacturing industries. There are several growth opportunities in store such as several domestic and Foreign Direct Investments, increased regulatory needs, business consolidation, competitiveness among domestic and global players, demand for quality products.

Overall increased awareness of the Digitalization and Industry 4.0 adoption in India will create the new opportunities in the next two to three years to come. There are other factors such as increased global and domestic demand for vaccines, injectables, generics markets that will continue to invest in scaling up their product lines and hence there is increased need for the lab automation and quality testing automation.

The STARLIMS concept was from the start focused on developing an agile informatics platform that would automate the QC lab testing workflow, to ensure the quality and efficacy of manufactured products.

For one of Abbott Informatics' pharmaceutical industry clients in the Asia-Pacific region, these insights have led to increased productivity and efficiency. The customer implemented the STARLIMS platform to manage its internal QC lab testing processes. Through the use of STARLIMS the customer was able to reengineer laboratory processes and was able to make 6 FTE savings, a significant achievement. More importantly, the lab was able to significantly increase capacity. So, through implementing STARLIMS as an automated LIMS they were able to relocate resources in the lab and streamline their manufacturing workflow. As a result, they were able to take on new drug manufacturing streams and so increase productivity and profitability, without having to increase their personnel.

Is adoption of lab automation more popular in the industry or academia?

Unlike North America and Europe markets, India is a more industry and commercial labs driven market over the academic markets. This is mainly due to the fact that affordability, level of IT and automation adoption in academic labs is very low. And we have observed less collaborations between industry and academia. However, there is an increased interest and need for the pharma, food & beverages, specialty chemicals and other manufacturing R&D labs for adoption of lab automation solutions in the Indian market. This is mostly due to the increased investments in innovation, new product development initiatives and opportunities. Indian companies are competing with global products, and several FDI in India are opening up the new possibilities to invest in R&D. With STARLIMS, Abbott Informatics is fully prepared to deliver the R&D specialty lab automation solutions with our ELN, LES and other relevant tools.

How can we enhance the adoption of lab automation into the Indian healthcare system, at both private and public level?

Healthcare opens up new opportunities in India for lab automation tools and solutions considering the fast progressing healthcare facilities expansion to B and C towns and rural parts of India. Prognosis and diagnostics are important for the right treatment and clinical decision making capabilities for healthcare practitioners. Routine testing, disease based testing, condition based testing, bedside treatment testing, pandemic testing, lifestyle related testing, personal care testing etc. are opening up new opportunities for the private and public labs. Rapid testing, affordability, providing quality results, accessibility of results from anywhere, patient data safety, home collections, analytics, smart device access etc. have become the new benchmarks in healthcare testing. Hence automation of lab processes right from sample collection to report delivery has become the new normal and we see a growing interest of small, medium and large commercial testing labs and government labs implementing the next gen lab automation solutions.

On the other hand, the governments are fast realizing the need for creating a safer, cleaner and better place to live and overall improve the quality of life-index for India. This requires government agencies and policy making organizations to test the various samples from public health, water testing, pollution testing, soil testing, environmental testing, food testing and material testing to assure the quality of life. This should also open up new opportunities for STARLIMS solutions in India in the years to come.