

Bayer's 14-Year Partnership with STARLIMS: Transforming Global Crop Protection Laboratory Operations

By consolidating the management of global laboratory operations within a centralized laboratory information management system (LIMS), Bayer CropScience's regulatory and GxP labs are achieving streamlined compliance and digitalization for one of their most vital divisions.

With a legacy spanning over 150 years, Bayer is a global leader in health and nutrition. Guided by the mission of "health for all, hunger for none," Bayer's Crop Protection division plays a pivotal role in delivering innovative solutions that power the world's food supply. Crop protection safety labs play a crucial role in ensuring a sustainable food supply while minimizing the environmental impact of farming.

For the last 14 years, Bayer has operated on a LIMS powered by STARLIMS to centralize lab data management and simplify compliance, helping them transform the way they formulate and monitor crop protection products.



BUSINESS CHALLENGES

Prior to the onboarding of STARLIMS in 2009, Bayer encountered significant challenges with inefficiency due to siloed lab data systems spread across multiple sites. The various existing systems were outdated, lacking in functionality, and did not receive the necessary maintenance and upgrades required for optimal performance. In the highly regulated agriculture industry, Bayer faced an additional challenge. The spread of lab data across disparate systems made managing compliance across diverse global laboratories a cumbersome task, given the requirement for meticulous documentation and adherence to GxP regulations.

These limitations hindered Bayer's efforts to establish a fully centralized lab data hub and implement automated processes for crop analysis. Bayer critically needed a solution to oversee residue analysis, as well as equipment and inventory. The situation demanded a robust LIMS solution to support the oversight of a multitude of lab activities, as well as coordination and automation. Recognizing the need for a comprehensive solution, Bayer sought a true informatics partner to help consolidate global laboratory data within a single LIMS, aiming to streamline formulation and laboratory activities.

WHY BAYER CHOSE STARLIMS

The Bayer team initiated the journey of vendor selection by documenting and prioritizing user requirements, procedures, and workflows. They then began the search for solutions that aligned with those requirements, seeking a system that could manage all internal lab processes, from the creation of recipes, batches, and samples, to results entry and reporting. Once those essential capabilities were identified, the team shortlisted technology that was flexible and configurable enough with the instruments, analysis specifications, reporting, and regulations of individual labs.

"STARLIMS has been instrumental for Bayer in simplifying compliance, offering meticulous audit trailing for every laboratory interaction within the LIMS."

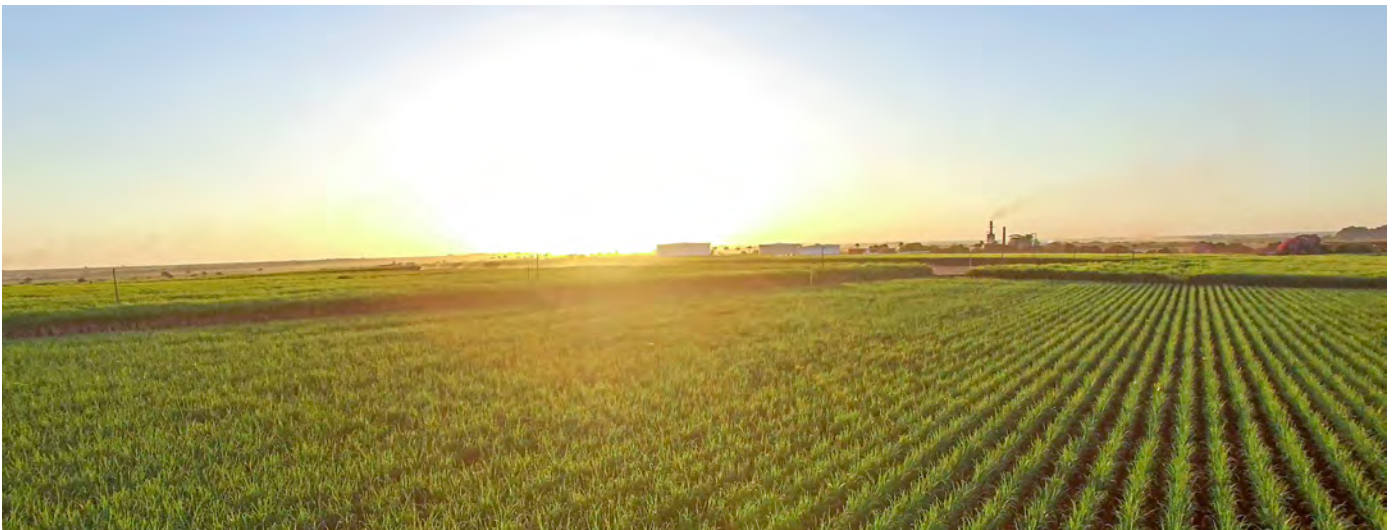
Tassilo Steffl, Senior Business Solution Architect, Bayer AG

After a comprehensive evaluation of LIMS vendors, Bayer's Regulatory Science team selected STARLIMS for the system's enhanced functionality, open and flexible LIMS that is configurable to the individual needs of the labs, and the consultative and collaborative support provided by STARLIMS Professional Services.

The white glove support, ongoing maintenance, and Train the Trainer programs were driving factors in the selection of STARLIMS.

RESULTS

In the years since onboarding STARLIMS, Bayer's Regulatory Science team has achieved increased automation and optimization of data capture in the lab, greatly improving their audit trail and streamlining compliance globally across labs. In conjunction with the LIMS, Bayer's lab technicians use the STARLIMS Laboratory Execution System (LES) on mobile devices in the lab and in the field. LES supports laboratory execution by providing procedural guidance and enabling immediate data capture, supporting GLP compliant documentation. These features are pivotal for obtaining operational licenses in the highly regulated environment of Bayer Regulatory Science.



The system's flexibility, combined with robust audit trailing, has proven invaluable. Bayer has greatly expanded their use of the platform, and STARLIMS now has a lab footprint across Europe, Australia, North America, and South America. Further, Bayer's upcoming upgrade to version 12.3, an HTML5-based cloud environment, signifies their commitment to staying at the forefront of technology.

"The regulatory authorities mandate meticulous management of our equipment, ensuring proper maintenance and thorough documentation of maintenance and calibration events. This centralized oversight is efficiently managed through our LIMS, providing seamless coordination and control. "

Tassilo Steffl, Senior Business Solution Architect, Bayer AG

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