Toward a Paperless Paper Trail

Spotlight on Tony McKeown, LIMS Administrator, doTERRA Global

In the fast-paced world of regulated laboratories, the shift from paper to digital isn't just a trend—it's a revolution. Meet Tony McKeown, the forward-thinking LIMS administrator at doTerra Global, who spearheaded this transformation at their Cork, Ireland lab.

Regulated environments place unique demands on those who operate within them. Among these demands is the need to document all operational aspects of the regulated environment while demonstrating that the expectations of regulators are being met. Capturing and communicating information are essential for good storytelling, and to pull it off, labs have relied heavily on history's most significant storytelling medium: paper.

However, the compliance story of a busy testing lab can make War and Peace seem like an easy read, both in terms of the variety and the sheer volume of the information involved. In this context, the mountain of paperwork that gets generated itself becomes yet another thing to be managed. Simply put, labs using paper recordkeeping can struggle to meet the demands of today's "big information".

"Of course, the reliance on paper wasn't an ideal situation," mused Tony McKeown, when asked about the recordkeeping system he encountered at the doTERRA laboratory in Cork, Ireland. An IT expert with an impressive track record of success in digitalization, McKeown joined doTERRA to bring their release testing lab into the digital realm. "Don't get me wrong – they coordinated the paper trail exceedingly well, but like many busy labs, they were running into the inherent limitations of paper. Each sample that was submitted to the lab had a large volume of paper associated with it. For example, a submission sheet was assigned to each sample being tested, along with a test sheet for each test being performed on the sample. We performed between 10 and 14 tests per sample. That's a lot of paperwork! When testing was finished, all test papers were gathered for review, before being merged to generate a COA. In a busy lab, you can imagine how much paper was moving around."

Tony McKeown
LIMS Administrator
doTERRA Global

"We've been able to use that time to increase testing levels and reduce the testing turnaround time from 14 to 8 days, all without increasing lab staff levels. We can even deliver priority samples in 6 days. That's something that would not have been possible without SLIMS."

Tony McKeown

Agilent
Trusted Answers

As is often the case, there were enough resources on hand to either do things fast or do them well, and since compromising quality was out of the question, time became the top challenge. "We had a 14-day turnaround time frame," McKeown continued. "That's for coordinating the documentation process, completing the testing, reporting results, and generating COAs. In that scenario, with our staff levels, instruments, and expectations of high quality, we had little room for the expansion of our testing levels or achieving a reduction in turnaround time."

In short, it was a prime opportunity for transitioning to a digital lab information management system (LIMS). But which one? McKeown relied on his past experience in making the choice.

"I have 30 years' experience in the IT business, so I've implemented a lot of systems in various industries," McKeown said. "The end-user experience is always the make-or-break consideration. There's no point bringing in a system that makes me happy if the users end up struggling with it. With that in mind, we reviewed several systems that were available on the market and chose Agilent SLIMS based mainly on its ease of use, data integrity standards, configurability, expandability, support, and cost. We already had OpenLab and MassHunter running in the lab, so we knew Agilent's reputation for producing quality software."
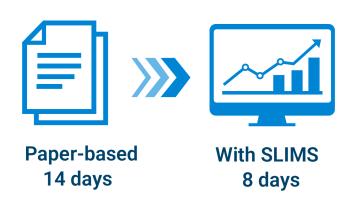
Choosing a platform is an important first step; bringing that platform online in a busy lab without causing disruption required next-level planning. "We took a phased approach bringing SLIMS into the lab, with multiple milestones built into each phase to help us evaluate progress," McKeown explained. "The first phase was simply to get us off paper, with milestones around configuration, testing, validation, and other key aspects. The implementation process was made so much easier with the terrific support from Agilent's implementation team. From the start of the project a strong professional relationship was fostered between the Agilent and doTERRA implementation teams, something that has continued today. SLIMS is a user-friendly system, and from an admin point of view, highly configurable, which simplified user training and helped us customize the SLIMS environment to suit our needs."

Even with the smooth transition, some of the outcomes still came as a bit of a surprise. "We didn't realize how quickly we were going to save time," McKeown said. "**We were immediately saving 50 hours plus per week across the site. We've been able to use that time to increase testing levels and reduce the testing turnaround time from 14 to 8 days, all without increasing lab staff levels. We can even deliver priority samples in 6 days. That's something that would not have been possible without SLIMS."**

50+ hours saved weekly

"We didn't realize how quickly we were going to save time," McKeown said. "We were immediately saving 50 hours plus per week across the site."

As doTERRA have moved forward with SLIMS, they've seen the benefits of eliminating paper stretching beyond efficiency and time savings; things like visibility, operations, and sustainability have benefited as well. "Of course, removing paper from our testing has reduced our environmental footprint, but the added visibility SLIMS provides has had a deeper impact," McKeown said. "SLIMS has automated dashboards that show the flow of samples through the lab and provide a lot of valuable information. Other teams on site, including production, planning, and our warehouse, have benefited from the introduction of SLIMS. Samples can be easily tracked and monitored for expected release dates. We have also benefited by eliminating manual processes such as tracking Instrument maintenance schedules and calibration dates, inventory expiration dates, and so on. Automating these processes in SLIMS has made them more transparent and accessible. We even at this early stage have integrated some of lab Instruments with SLIMS to automate result entry."

Paper-based 14 days → **With SLIMS 8 days**

Agilent
Trusted Answers

Now that doTERRA have SLIMS up and running, they are exploring its capabilities more fully and look forward to bringing new features online. McKeown suggests there's more to be written in the story of doTERRA and SLIMS.

"I'm comfortable calling the SLIMS rollout at our Cork facility a success," he said. "In fact, with that success in Cork, doTERRA tasked me with implementing SLIMS at our manufacturing facility in Brazil as well; the cross-site consistency and visibility have simplified some of the challenges of operating internationally. From the start, Agilent has worked to ensure we become true administrators of the system, and that level of familiarity has encouraged us to find new ways to extract value from SLIMS. There's a lot of potential that we are eager to access, including much greater capacity for automation and deeper integration with things like OpenLab Sample Scheduler. I expect the impact of SLIMS on our operations will continue to grow."

Discover how Agilent SLIMS can revolutionize your lab's operations. Contact us today to learn more about how our innovative solutions can help you achieve similar success.

www.agilent.com/chem/agilentslims

Agilent
Trusted Answers