

Fast track to global success wielded by small organization with big dreams

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NeTLIMS Israel (Softov) kicked off its laboratory information systems (LIS) business in 1996, opened its U.S. headquarters in New Jersey in 2002, and today finds itself not only serving the second-largest health maintenance organization (HMO) in the world but also powering Quest Diagnostics' operations in India. NeTLIMS is an example of a good idea done well. In July, the company's AutoFusion Blood Bank Management System received FDA approval for use in the United States, and the company launched its AutoMobile to help clients expand support of on-the-road and in-hospital phlebotomy using standard hardware. One of its pioneer employees, Rami Jaschek, spent a little time explaining his experience with the company.

MLO: While there is much being made by many organizations that "global" is a relatively new way of doing business, NeTLIMS, according to its website, has been engaged since its inception in global entrepreneurship. When did you join NeTLIMS, and when did its offices open in your present Jersey City, NJ, location. What were you originally charged to do for NeTLIMS overseas?

What happened that made you realize that your performance had succeeded, and how long did that take?

Rami Jaschek, VP of Technology at NeTLIMS: I joined NeTLIMS Israel (Softov) back in 1996 and actually helped build NeTLIMS in 2002. I was the first COO of the company. At that time, we mostly focused on the New York area. Due to the company's small size at the beginning, this meant doing just about everything, from marketing to making sure that bills were paid and assisting clients with support questions or instructing technicians. Our first high-profile sales (i.e., New York University Medical Center) meant that we were being accepted as a player in the U.S. market. We were competing with leading U.S. companies, with what was a successful solution. It took us about two years to get to that point.

MLO: Over the years that you have worked overseas, have you been able to discern the general differences in medical laboratories there compared to those in the United States; and, if so, what are those differences and have overseas labs advanced in those areas to a greater degree than their American counterparts? Have overseas labs been earlier adopters of technology than American labs?

Jaschek: Many differences are due to the structure of the healthcare market. For example, in an HMO situation — more common overseas — the lab takes on a larger part of the patient differential analysis. Reflexing, deciding on additional tests, and putting a greater focus on result interpretation allow the lab to move further down the road to a patient diagnosis without need to go back to the costly physician-patient-phlebotomy path. Another major difference is that patients, especially chronic patients on constant treatment, are very much involved in their own care. They know how to medicate themselves based on the levels shown in their tests. For example, coumadin-treated patients can adjust their medication based on their PT results with no outside assistance.

Different technologies are sometimes adopted earlier in overseas markets. This may be due in part to working with lower prices for testing, which pushes labs to innovate and more quickly adopt work-saving technologies, such as automation, stronger electronic-medical-record-to-lab integration, electronic phlebotomy solutions, and so forth. When validating an entirely new analyzer, the

lab looks to set ranges, validate linearity of results across the analyzer's dynamic range, and so on. This calls for specialized reports and greater control over handling and analysis of an analyzer's regular results and quality-control values.

MLO: Can you outline specific examples of two or three laboratories with which you have worked in other countries that have used your LIS software solutions to improve some aspect of their performance? In what ways do these installations demonstrate advanced use or earlier, wider adoption of software solutions over what is being done in the USA? How do you integrate your products with LIS/HIS from different vendors?

Jaschek: I believe that moving into full automation of the electronic path from the physician system to the lab and back has seen the biggest changes in those laboratories in which NeTLIMS has worked. HMO-wide repositories of patient orders and standing orders, coupled with localized patient service center solutions that can access those repositories, guide the phlebotomy team in collection, and transfer the information electronically to the relevant lab. Removing the bottleneck of data entry at the lab gave laboratory technicians/technologists the option to utilize pre-bar-coded labels



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at PSCs and even skip the receipt-confirmation step. This was done using automation-based pre-analytical solutions such as sorters and automation lines, together with the LIS-supporting analyzer and automation-based receipt-confirmation indications.

Growing volume that flows directly into the analyzers strongly emphasized the need for electronic tracking of sample position in the lab — with the LIS in the center collecting data from all automation lines and analyzers showing the user where all his samples are at any given moment. The cycle is closed, with automatic approval at the lab and electronic results delivery to physicians, which promises a very short turnaround time.

Many of the steps described have come into play earlier overseas, especially in large-volume labs and in a wider, more complete fashion than seen in the United States, with size and pricing forcing a more rapid pace. Integration with multiple vendors is accomplished based on engines for interfacing, with all points of contact maintained outside the main source code so solutions can be given with no need for a version change and with no impact on other users. We have developed and continue to develop a “pool” of drivers for multiple purposes (i.e., analyzers, HL7 interfaces, billing, proprietary) that either provides an immediate solution to an interfacing need or gives us a strong basis from which to start to find a solution.

MLO: The NeTLIMS’ website states that the company has worked with companies in Israel, including the world’s second-largest HMO Clalit ... and that it has installed its software most recently has supported Quest Diagnostics’ Laboratories Operations in India. Can you name other countries in which you have examples of the varied uses of the NeTLIMS LIS software systems? Can you reveal the most unlikely user of your software in other countries? Do global companies inspire NeTLIMS to upgrade or reinvent its offerings; and, if so, can you give a couple of examples?

Jaschek: We are currently operating solely in Israel, the United States, and India. We expect to branch out to additional markets in the near future, but current implementations exist only in those countries.

I believe the most unlikely users turn out to be the most inspiring ones down the road. Genetics labs that started by building on our AutoLIMS core product, with its many configurable logic options and reports, ended up being the driving force for our AutoGenetics module. Bone-marrow banks have been using AutoFusion (our blood-bank module) for their unique uses and have driven our product’s customization much further, bringing us to the step of looking at a full-blown module just for them.

A recent example of innovation can be found in two of our hospital clients, both of which deployed a robotics line interfaced with our system and, together with our outreach module, deployed to hospital wards. One of the clients came up with the idea of having the system automatically complete testing for a patient who is being transferred from the emergency room (ER) to a hospital ward. Based on data from the hospital information system, our LIS detects differences between the ER’s admission test panel and the ward’s admission panel, and orders the automation to perform the additional tests. This provides physicians at the ward with a full admission panel very quickly without the need to poke the patient again.

In the same area but with a different goal in mind, we added, at the request of a second hospital, the ability for physicians to

place new orders based on samples that currently exist in the lab (subject to stability of the sample per test and automation line indication of sample state). This allows physicians to order additional diagnostic tests that get routed to the lab and the automation line directly (as no collection is needed) and to get results within a very short span of time, sometimes with no human intervention with our automatic approval.

MLO: What challenges do you and other NeTLIMS representatives overseas face as part of the company’s global outreach? What does — and what has — NeTLIMS as a company faced in the years it has been developing its global business? Of all the details that one must confront in mastering global outreach, what are the “Top 3” suggestions you would give a newly minted NeTLIMS’ employee who was pursuing the global arm of the business?

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Jaschek: The greatest challenge is understanding the uniqueness of the lab market. You must understand the environments your clients are working in to be able to suggest relevant or even innovative solutions. Figuring out what overseas experience is relevant for a client question and what calls for a local solution is key. Adapting to the specific culture and learning how to motivate and teach people in different cultural environments is also a difficult task.

I believe we have faced what any company doing business outside its borders has faced, especially with the technical and financial difficulties of setting up a base very far from the parent company. Learning where you can take advantage of things — for example, learning how to benefit from time-zone differences — that in other places may be limitations is key. In general, I would say that accepting the fact you are on an ever-continuing learning path, balancing between applying your knowledge and the company’s knowledge — and, yet, being able to recognize when a problem is different and requires a new approach — is the main goal.

I believe the most important goal of any new employee is to study the product he is supporting, implementing, or developing in context; learn not only what the product’s features are but also which client need he came to address; and learn why the market at the relevant territory brought about this need and solution. Being a very open platform, AutoLIMS may, in many cases, suggest multiple solutions to any given question. Finding the right solution that will continue to provide a solution as the usage continues is vital.

Another necessary point to learn is where to go for knowledge. With a large suite of products and many niche solutions, knowing where to ask for assistance or where to search for knowledge is critical in order for a new employee to avoid the “reinvent-the-wheel” syndrome. □

Learn more at www.netlims.com or contact Rami Jaschek at rami@softov.co.il.