

Five Powerful Principles for Lab Automation Success

Siemens offers proven techniques used to maximize laboratory performance

A perfect storm of continuing budget pressure, expanding test volumes, and a shortage of qualified laboratory personnel is driving the migration of laboratory processes to automation. For labs to ensure the successful implementation of new workflows, they should consider these principles when choosing an automation solution.



1 Flexibility and adaptability

Consider a lab automation system that adapts easily to higher test volumes. For most labs, it is difficult to accurately anticipate its future needs, but most will agree that as the population ages and assays are developed, volumes will grow and menus will expand. Look for a solution that can be customized to: configure your unique floor space; add optional operational modules such as centrifuges; and connect analyzers from various clinical disciplines as they are needed.

2 Efficient tube management

Ascertain how well the platform facilitates both total tube management—from the time a tube arrives until it is archived—and primary tube efficiency. An inefficient pre- and post-analytical workflow will be greatly magnified as testing volume grows. For example, by implementing automated post-analytical tube management, a hospital in California reduced the time to retrieve a sample for add-on testing from hours to 60 seconds.¹

3 Integrated IT

Utilize information technology as the cornerstone of total lab process management. As an illustration, after automation, a Chicago hospital's TAT for routine chemistries dropped from 96 to 73 minutes. By implementing key IT features like auto-verification, QC review, and instrument flagging, they reduced TAT another 30%.² With integrated information technology, a lab's information flow can become routine by building in total process management.

4 Sustainability

Evaluate how much waste your lab currently produces. A sustainable lab automation solution can dramatically reduce costs by improving staff efficiency, streamlining process variations, and reducing consumable usage. For example, by cutting the number of tubes collected for each patient in half, a major Portuguese hospital reduced overall lab costs by 30%, producing 30 fewer tons of waste each year. (Solid waste volume was cut 61% and liquid waste by 74%).³

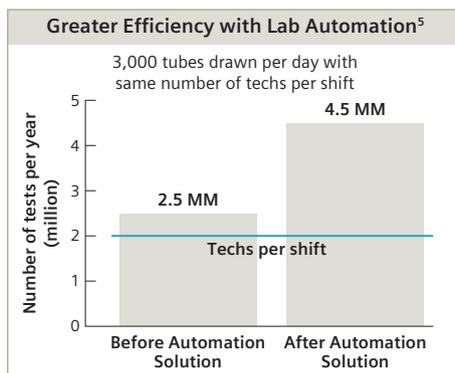
5 Improved staff utilization

Assess the overall level of workflow automation. When repetitive, manual tasks are greatly reduced, staff can be placed in roles, which better utilize their training and enable them to make a larger contribution. As an example, a large UK hospital saved 15 hours/day by taking staff away from offline centrifugation and redeploying them to focus on service to clinicians, quality management, and continuous lab process improvement with their automation solution.⁴

Choose a partner you can trust

An automation solution decision creates a long-term relationship with the products and the people who support it. Choose a partner with deep automation experience, expertise in Lean and Six Sigma process improvements, and a commitment to ongoing customer success. Select a company that provides vision, excellent service, and analytical horsepower—all working together as one unified solution for your lab's future growth.

Contact your Siemens Healthcare Diagnostics representative for more information, or please visit www.siemens.com/automate.



References:

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5. Bill Paul, Supervisor, Automated Chemistry Laboratory. ACM Medical Laboratory, Rochester, NY.