



The Power of Process™ in Action

Power Processor Helps Hospital Lab Set the Pace of Automation in Europe

Laboratory Profile

- Ospedale San Salvatore, Pesaro, Italy
- The largest hospital in its region, serving a population of 350,000 in and around Pesaro
- Operates 24 hours a day, seven days a week
- Performs 1.8 million tests per year
- Equipped with a range of Beckman Coulter instruments, including a Power Processor and two SYNCHRON LX®20 Clinical Systems



"Beckman Coulter offers a partnership in the development of an organization," says Gabriele Rinaldi, M.D., Ph.D., Ospedale San Salvatore's laboratory manager.

Situation Overview

At Ospedale San Salvatore in Pesaro, Italy, laboratory officials have never been afraid of change. The lab at the 400-bed hospital helped pioneer automation in Europe and was the first on the continent to install Beckman Coulter's AccelNet™ system in 1998.

But when decision-makers moved to create a core lab and integrate services across different sites, they recognized that the situation called for careful implementation.

The hospital decided to turn to long-time partner Beckman Coulter to help it fashion a core lab that would not only bridge gaps but also break down barriers. The result is that Ospedale San Salvatore remains a leader in hospital lab automation in Europe.

A Time for Change

A state of flux can fluster even the most self-assured organization. But for Ospedale San Salvatore, a 400-bed hospital in Pesaro, Italy, change has always been more about opportunities than obstacles.

Which is why San Salvatore chose Beckman Coulter as its lab partner.

The hospital gained new efficiencies and enhanced its standing as an automation pioneer when it became the first lab in Europe to install Beckman Coulter's AccelNet system. That 1998 decision came after careful consideration and was based on Beckman Coulter's commitment to cutting-edge technology coupled with world-class customer service and training programs.

First AccelNet and then the Power Processor showed hospital officials "that automation not only was possible, but that it was also practical," Dr. Rinaldi adds. "We saw the possibilities and we were eager to move ahead. The Power Processor is easy to use and the maintenance is simple," Dr. Rinaldi says. "We're still exploring all the ways we can optimize staff and minimize turnaround times."

Integration is at the Core of the Lab's Success

A desire to streamline procedures and add flexibility drove another change decision at San Salvatore. The hospital created a core lab, integrating services across several sites.

"There were concerns that the creation of a core lab might distance the clinical lab professionals from the primary care providers," Dr. Rinaldi said.



"This could hamper the partnership that must exist for us to deliver the highest quality health care for our patients."

By turning those concerns into pre-emptive action, the hospital has fashioned a core lab that bridges gaps and breaks down barriers. And Beckman Coulter's Power Processor helped make it happen. The results are better organization and improved performance, which everyone can appreciate, including clinicians and providers.

"It's noticeable that there are far fewer calls to the lab nowadays asking, 'Where are my results?'" Dr. Rinaldi says.

What's more, clinicians have more confidence in the swift turnaround of lab results and can schedule their patient activities with a much higher degree of comfort. Today, routine test results are available in less than an hour, while emergency chemistry and cardiac marker results are delivered, on average, in 45 minutes. The hospital was even able to close its stat section and integrate samples into the routine lab because automation improved turnaround times so significantly.

Cross-training has been a key factor in making the lab more cost-effective and in adding flexibility to scheduling, Dr. Rinaldi says. It also empowers staff to expand their skill set and grow professionally.

Laboratory Goals	Laboratory Results
<ul style="list-style-type: none"> • Improve productivity for external users 	<ul style="list-style-type: none"> • Increased outpatient productivity by 10 percent
<ul style="list-style-type: none"> • Reduce turnaround times 	<ul style="list-style-type: none"> • Decreased turnaround times by about 60 percent
<ul style="list-style-type: none"> • Boost efficiency to better utilize staff 	<p>Added efficiencies:</p> <ul style="list-style-type: none"> • Eliminated need for emergency processing, allowing all samples to be integrated • Reduced from five to two number of technologists needed to meet routine test demands • Reduced number of instruments and samples per patient

Automation Helps Speed Changes

The benefits of automation were immediately apparent. Automation helped the hospital cut turnaround time for routine tests in half, meet its lab goals of reducing in-patient activity, improve activity for external users, trim its number of instruments, contain costs and generally advance molecular biology diagnostics.

"Introducing automation meant that all of the lab's systems and processes needed to be re-examined and streamlined," Dr. Rinaldi says. "That in itself is a beneficial effect." The introduction of the Power Processor allowed the lab to take on additional workload from the Diabetic Centre, without any increase in staff.

Restructured Lab Brings Efficiency, Flexibility

Ospedale San Salvatore officials adopted the core lab concept for many of the same reasons they embraced automation: as a means for greater efficiency and better use of staff members' skills.

At the center of the hospital's core lab concept was the Beckman Coulter Power Processor automation system. The installation made Ospedale San Salvatore the 100th Power Processor site in the world.

The scalable system, which can connect to a wide range of instrumentation (including non-Beckman Coulter analyzers), gave the laboratory the flexibility it needed to meet growing workload requirements by automatically performing bar-code reading, sample login, sample sorting, cap removal and centrifugation.

Consolidating functions allows everyone to do more with less, Dr. Rinaldi says. Two technologists are now able to meet test demands at any one time in the routine chemistry lab, whereas previously it took five.

To maintain its cutting-edge lab, the hospital will need to prepare for expected growth in testing volume, Dr. Rinaldi says. Automation will play a key role in future expansion.

Collaboration Prevails

When it chose Beckman Coulter, the hospital got more than a vendor, Dr. Rinaldi says. "We got a partner in the development of our organization, as well as timely supply of reagents and optimal support in training programs."

Dr. Rinaldi recommends fostering an atmosphere of collaboration right from the start while the changes are being planned. Regular communication with all those affected by changes is another imperative.

Overall, Ospedale San Salvatore shows that lab processes work best when planning and people considerations are just as advanced as the automation.

Editor's Note: Dr. Rinaldi would like to acknowledge the following individuals for contributing to the success of his laboratory: Alessandro Guazzoni, Guido Conca, Danilo Greco, Fabio Negri, Giuseppe Gazza, Bruno Bastianelli and Claudio Catalani.



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