

Case study:

A unique collaborative process to prepare for Hemostasis Specialized Lab Automation



University Hospital of Wales

Cardiff, United Kingdom

This case study highlights the impact of Werfen's **5S Lean Workshop**, conducted with the Hemostasis Laboratory team at University Hospital of Wales. Leveraging Werfen's expertise in lean methodology, the workshop helped the lab optimize resources and streamline workflows prior to the implementation of their **HemoCell Specialized Lab Automation** workcell. This led to increased productivity, standardization of processes, and reduced turnaround times.

Improving efficiency in the Hemostasis Laboratory

The challenge: improve efficiency and productivity in the Hemostasis Laboratory, for better patient care

University Hospital of Wales is one of the largest in the UK, with 1,000+ beds. As a teaching hospital for Cardiff University School of Medicine, it serves a wide range of patients and specialties.

The Hemostasis Laboratory's three primary goals:

- 1 Reduce non-value-added activities to optimize lab resources
- 2 Reduce cost through improved utilization of instruments, reagents, and new technologies
- 3 Standardize instrument processing and result reporting and redeploy staff, while enhancing workflow

The solution: Werfen's 5S Lean Workshop and HemoCell Specialized Lab Automation

HemoCell Specialized Lab Automation integrates all phases of Hemostasis testing for optimal efficiency. Featuring the ACL TOP® 750 LAS Hemostasis Testing System, HemosIL™ reagents, and HemoHub™ Intelligent Data Manager, HemoCell standardizes and automates testing with flexibility to increase walk-away time, allowing lab staff to focus on value-added activities.

To prepare the University Hospital of Wales lab staff for the installation of HemoCell, Werfen consultants led an on-site **5S Lean Workshop**. Combined with pre-workshop activities and online training, this resulted in the design of new workflow processes, setting the stage for continuous improvement.

What are the 5Ss?

Sort

Set in order

Shine

Standardize

Sustain

“By effectively pairing the skills of each staff member with the appropriate tasks, we were able to free up our most experienced staff to address the highest-value activities.”

— Sue Lawless, Automated Hematology Laboratory Manager, University Hospital of Wales

The results: optimized lab space, enhanced workflow, and an engaged staff

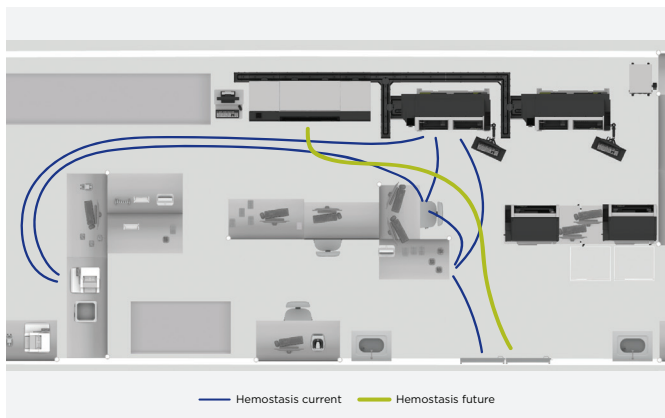
Together, the team identified strategies to improve efficiency and productivity:

- Visualizing processes through spaghetti diagramming for layout modifications that would result in fewer steps
- Relocating/reorganizing workbenches within the laboratory for optimized workflows
- Setting up workbenches with the *right* supplies in the *right* quantities at the *right* locations
- Allocating designated space for storage of commonly used supplies
- Customizing a HemoCell layout, ideal for the lab's space, staff, and key performance indicators (KPIs)

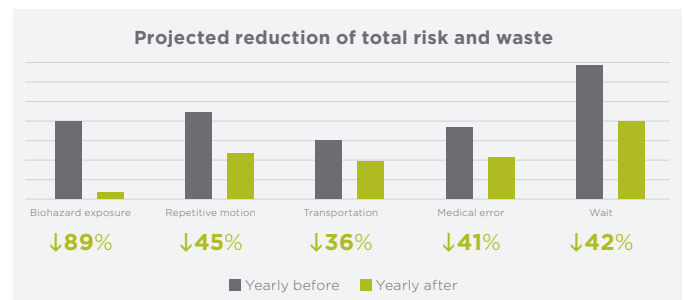
“The workshop allowed us to view our lab with fresh eyes—to make better use of the space, improving utilization and workflow.”

— Amanda Whitbread, Senior Biomedical Scientist, Hematology, University Hospital of Wales

Optimization and inventory relocation predicted to reduce steps by 150km/year

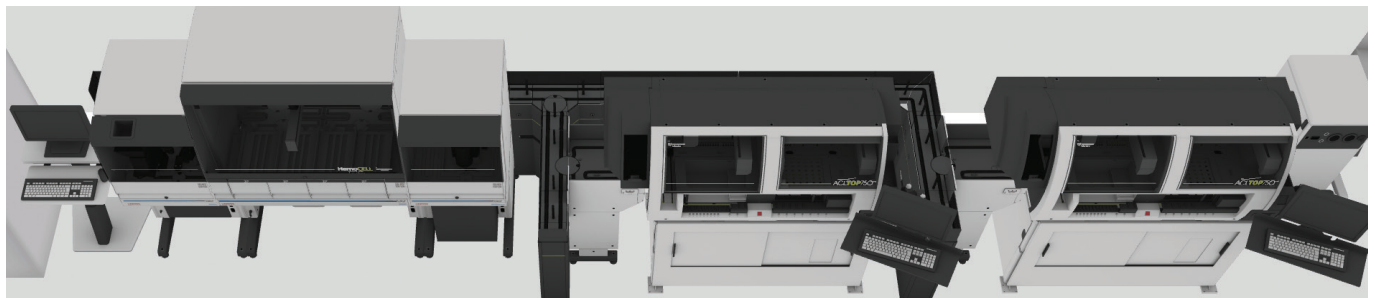


Workflow calculator used to show projected outcomes



Moving materials closer to point of use, aimed to enhance the operator experience

Customized layout designed to drive workflow improvements



Proposed layout generated by Werfen's proprietary software.

“Simplifying our processes reduces our training requirements, allowing our staff to instead focus on quality improvement.”

— Vince Jenkins, Hemostasis/Thrombosis Laboratory Manager, University Hospital of Wales

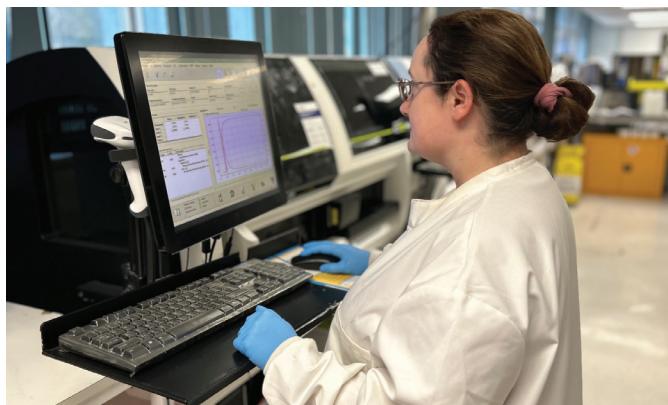
Conclusion: positioned for continuous improvement and ongoing success

Werfen's collaborative approach, including an expert-led 5S Lean Workshop prior to installation, has prepared the laboratory for successful implementation of HemoCell Specialized Lab Automation. It also familiarized the team with the design and future workflow, increasing their confidence.

Ultimately, this will help the Laboratory achieve their goals by optimizing resources, reducing cost through improved utilization, and standardizing processing and results.

“By collaborating with us to improve our processes, Werfen and HemoCell have helped us identify a way to minimize errors, reduce risk, and enhance quality overall.”

— Vince Jenkins



Amanda Whitbread, Senior Biomedical Scientist, Hematology, reviews patient reaction curves.

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