

LIMS “Go Paperless” Project: Digital Transformation

The client develops and manufactures pharmaceutical products for a wide range of medical disciplines. Specifically, the Vaccine Research and Development group is responsible for the development of therapeutic vaccines. The company engaged Clarkston Consulting to support and deploy capabilities to allow paperless processes by transforming manual operating procedures supported to fully capable electronic laboratory information management system (LIMS) processes.

The primary goal was the business adoption and transformation to a digital process with complete elimination of physical forms and data packages. Data packages were previously made up of hundreds of paper forms and standard operating procedures (SOPs). Due to an increasing number of studies, samples, and assays, the continued maintenance and operation costs of paper processes were unsustainable.

Clarkston worked with the client to transform the operational processes dependent on paper workflows into LIMS “totally paperless” processes. The project included training and change management to deploy and assist with end-user adoption. The solution provided improved data quality and security, the ability to automate data validation, lowered operation costs, and enabled real-time analytics. The lab operations are now totally digital – and totally paperless.

Life Sciences Case Study

PROJECT OVERVIEW

COMPANY:



A Global Pharmaceutical
Manufacturer

INDUSTRY:



Pharmaceuticals

EMPLOYEES:



88,000

REVENUE:



\$51.75 billion

PRIMARY OBJECTIVES:

Clarkston and the client set out to:

- Achieve business transformation to digital operations
- Improve process efficiency by eliminating physical data packages and associated forms
- Simplify data collection and analysis
- Reduce data entry errors by developing automatic data validation checks
- Implement process change by increasing functionality to allow for greater system utilization

RESOLUTION:

In order to achieve the goals of the project, Clarkston and the client:

- Used teams focused on individual business processes to analyze and convert paper forms into electronic workflows within LIMS to effect operational change
- Configured workflows that leveraged LIMS functionality, including test calculations, data validation, and analytical reporting to perform lab processes that were previously performed manually
- Implemented and validated the developed workflows using agile and iterative cycles of design
- Created and presented training materials to business owners and end users

KEY BENEFITS:

As a result of the project, the client realized the following benefits:

- Digital standardization of process flow, data collection, and analytical reporting within LIMS
- Simplified lab processes by reducing effort involved in creating and managing data packages and paper forms
- Improved data security gained by converting paperwork into electronic forms within an access-restricted system
- Enhancements provided more secure access to the proper users
- Encouraged stricter adherence to standard operating procedures by reducing sources of error potentially introduced through human error
- Elimination of labor and storage necessary for maintenance of data packages and paperwork
- Implementation of dynamic data entry process that allows for unique data validation rules on individual components and allows for a reduction in errors
- Improved data investigation/querying process
- Formalized a digital inventory system within LIMS

CLARKSTON
CONSULTING

6 Months

Enabled an increased system
utilization with an increase from
40 concurrent users to 135+
active users in 6 months

80 and 50

FORMS SOPS

Converted more than 80
forms and 50 SOPs into
digital processes

200,000

Estimated 200,000
individual pieces of paper
in the 2 years since
implementation