PFIZER INC.

Batch Changeover Velocity

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Pfizer Inc. is a world-leading research-based pharmaceuticals firm, with annual revenues over $51.8 billion and nearly 100 clinical research and development projects in-progress, supporting the expansion of a diverse portfolio of medicines and vaccines. Faced with shifting patient expectations in a rapidly evolving industry, only further spurred by the COVID-19 pandemic, Pfizer is not strictly keeping pace with shifting industry paradigms but setting the pace for innovation.

With goals of delivering 25 breakthroughs that treat 225 million patients by 2025, Pfizer is focused on further strengthening its research and development (R&D) pipeline by redefining delivery timelines, reevaluating clinical drug priorities, and investing in new technologies, capabilities, and continuous improvement opportunities. To accelerate delivery of medicines and vaccines that meet unmet medical necessities, Pfizer recognized the need to increase facility capacity and production throughput at its Sandwich, UK facility, which has new capabilities coming online and an increasing demand year after year.

The 2021 Tauber Team focused on improving facility efficiency and overall manufacturing capacity and throughput by rationalizing non-manufacturing activities, maximizing resource utilization, and optimizing workforce skillsets. Based on an analysis of current state operations, the key improvement opportunity areas addressed the facility system's bottleneck, cleaning queue throughput, and technician capacity. The main recommendations included hiring an additional cleaning resource, implementing a space dedicated for drying equipment, and creating an additional cleaning shift in current operations. The team also recommended several changes to technician team scheduling and working dynamics, cleaning practices and organization of tools, technology utilization, more accurate data collection methods, and cleaner training program enhancements.

When implemented, the Tauber team's recommendations will enable a 125.43% increase in cleaning queue throughput and a 38.28% increase in technician capacity - time that can be dedicated to manufacture and strategically complete non-manufacture activities. These recommendations will save Pfizer a total of $5.07M through manufacturing process increases and saved labor costs. These projections are derived from current state documentation, technician and cleaner interviews, a real-time piloted data collection system, and previously existing facility data. Some of the results were confirmed by data collected during a 5-week pilot that tested the validity of a subset of recommendations. These impacts will enable Sandwich to complete more processes and batches, and thus, deliver more clinical product every year. In doing so, Pfizer can accelerate medicines and vaccines to market, supporting Pfizer's commitments to meet unmet medical needs through the development of breakthrough therapies and precision medicines.