



Case Study

Smart Factory Suite application reduces waste by 59%

BUSINESS GOALS

The food and beverage manufacturing space is one of the slower adopters of i4.0 technologies. A leading food and beverage company did not shy away from the tremendous opportunities that this transition created, including improved quality, greater productivity and better sustainability and waste reduction efforts. The company embarked on a largescale digital transformation across its global manufacturing operations with the primary objectives of having zero waste by improving plant reliability, having 100% employee adoption and to establish themselves as a factory of the future that is consumer-driven, responsive, accurate and autonomous. The company also hoped to drive accountability and responsibility amongst management and operators, which would support the adoption of their high performance standards.



Smart Factory Suite Application
Solves Data Visibility Problems



INTEGRATED DIGITAL FACTORY (IDF)

At the core of this transformation was the IDF, a standardized system design that integrates the company's enterprise resource planning (ERP) and quality systems to promote data ubiquity, transparency and efficiency. However, the company faced a number of operational issues, such as the inability to conduct accurate root cause analyses due to unreliable production data collection. Operators were also unable to see the extent of the issues and thus did not address them in real time, resulting in poor quality output. The company knew there was a missing piece to its IDF strategy, which was a robust, real time smart factory internet of things (IoT) platform. The company needed a solution that would provide operational visibility, accurate data collection and detailed reporting to support performance benchmarking and continuous improvement.

BUSINESS CHALLENGES

Other issues faced by the company included a number of operational bottlenecks. This pertained to slow-running lines and excessive changeover times. The true challenge existed in their inability to address problems accurately and in a timely fashion.



Identifying the Root Causes

At an average of 25 days between next run (DBNR), the company's production suffered from wasteful downtimes. Without visibility, the company struggled to prioritize which areas demanded its attention. Moreover, the lack of visibility made it difficult to identify the root causes of waste.



Unreliable Data

Without accurate historical production data, the company struggled to establish firm production quotas and standards. Additionally, operators lacked a frame of reference from which they could compare their current performance to past job runs.



Waste Generation

The goal of eliminating waste from the plant floor was a priority for the company. Prior to implementing Shoplogix, generated 1.57% of waste, resulting in a net loss of approximately \$1.1M. The company lacked the required context of accurate real-time and historical data.

BUSINESS CHALLENGES

After reviewing 30 different services, the company chose the Smart Factory Suite solution to complete its IDF goals. The Smart Factory Suite allowed for real-time production data, visualized performance, as well as system integration. Beyond its robust functionality, the company trusted the in-house experts when it came to scaling the solution quickly across global operations. Supported by Shoplogix's experienced implementation team, the company was able to cut their initial estimated implementation time by **more than 75%**. The company reduced the time **from 13 months to just three months** per site.

Shoplogix was first introduced at one of the company's facilities. Preliminary data collection revealed numerous sources of loss and inefficiency, including late starts, slow-running lines, excessive changeover times and persistent minor stops. This resulted in a net loss of 8.3 hours of production time per week.

With the Smart Factory Suite, the company hoped to drive accountability and responsibility amongst management and operators, which would support the adoption of its high performance standards. Moreover, such a system would introduce standardized performance metrics across all of the company's plants globally. The performance system would then provide accurate data collection and reporting to support performance benchmarking and continuous improvement.



SOLUTION

The company was attracted to the real-time visibility that the Smart Factory Suite provides into daily operations and the opportunity to solve problems in an efficient manner. Shoplogix delivered an intuitive and easily configurable plant floor visualization solution that delivered real-time data and integrated other data from their ERP and quality systems.

System Integration

Seamless system integration could exchange information with the company's integrated quality services (IQS) system and software.

Downtime Analysis

- The company no longer has to rely on observation and assumption to design root cause analyses and preventative initiatives.
- Historical downtime information is able to effectively prioritize preventative maintenance and justify capital expenditures (CapEx) for aging equipment.

RESULTS

- Accurate and accessible data empowered workers of all levels to collaborate in achieving their objective of zero loss and 100% engagement.
- Detailed downtime information is automatically collected by either Shoplogix's programmable logic controller (PLC) solution or manually entered in special cases.
- The integration eliminated repetitive manual entry and human error, leading to increased efficiency and greater transparency.

Real-Time Data

- Automated data collection was displayed on the plant floor.
- Workers at one of the company's facilities were freed from tedious and manual work.
- Real-time insights afforded operators and management the opportunity to address issues immediately.



Increased Overall Equipment Effectiveness (OEE)

\$1,500,000 annualized benefit



Decreased Waste Production

\$650,000 decrease
59% waste reduction



Decreased Changeover Time

54% changeover time reduction

ABOUT SHOPLOGIX

Shoplogix is redefining the manufacturing industry by making the Shoplogix Platform the cornerstone of digital production and performance transformation. By empowering manufacturers to visualize, integrate and act on production performance in real time, Shoplogix uncovers hidden shop floor potential and drives rapid time to value.

Let Shoplogix help achieve your company's vision. Contact us today.

www.shoplogix.com
info@shoplogix.com

NORTH AMERICA +1 905 469 9994
EUROPE +353 86 349 5638
LATIN AMERICA +52 55 5596 6060