

# 18% Increase in Production Performance with Automation and digitization

User Story: Swedish Match



# CHALLENGES AND DECISION MAKING

Initially, all production performance data relating to downtime, quality, and output was written down by hand and kept in binders. A process both time- consuming and errorprone. Swedish Match was in the market for a solution that could increase their OEE and automate their processes.

Coming across a solution as easy to implement and cost-effective as Blackbird made for an easy decision. Swedish Match started a pilot project with us shortly after.

#### **IMPLEMENTATION PHASE**

## Complete system Installation in less than an hour

They decided to start their pilot on a single line which they evaluated for three months before rolling the solution out across their entire facility.

The installation went off without a hitch and lasted less than half an hour.

They were thrilled they had access to realtime production data on their smartphones within an hour after the project had started.

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#### **BLACKBIRD BENEFITS**

## REAL-TIME MACHINE MONITORING

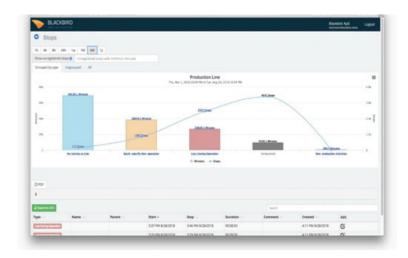
With Blackbird set up to monitor production lines, you get immediate data and actionable insights that you can use to increase OEE, monitor downtime causes, or track batches. Assess performance on the fly with a user-friendly interface available on desktop and mobile.

#### **ADVANCED SECURITY**

Data is safely transferred and stored in the Blackbird Cloud Application, hosted in AWS. The data center is SSAE 16, SOC2, ISO 27001, and BS25999 certified.

#### **RELIABLE UPTIME**

Extensive connectivity through Wifi and 4G/LTE with a fallback to 3G/2G guarantees uptime with a constant stream of data. Auto failover ensures a fallback in case of connectivity loss - additionally, there is automatic buffering in case of data connection failure.



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# Registering and understanding stop causes for success

Swedish Match could now see which products were being produced minute-by-minute, significantly increasing the visibility they had into their manufacturing processes.

With the help of their operators, they managed to pinpoint and catalog meaningful stop-cause reasons that became the baseline for their downtime analyses and targets for their improvement.

They followed their pilot's success with seven additional lines, all being monitored and continuously improved by the Blackbird solution.

#### **APPLICATION AREAS**

# New product challenges - setting baselines and meeting targets when dealing with the unknown

When Swedish Match faced the challenge of manufacturing all new products, they knew they had to rely on data. They set baselines and developed new processes based on historical information while analyzing their ongoing production in real-time to optimize the steps along the way.

#### **Enabling data-driven decisions**

Process Control Digitalized - Blackbird's Control Recipe feature

Before implementing Blackbird, Swedish Match's operators were required to keep track of all production data by hand. Performance parameters, stop causes, and units produced were written down and handed to shift supervisors to be cataloged and archived at the end of each day.

To address quality issues, supervisors would have to sift through binders of old data to try and match batch numbers to corresponding products.



We did not have our baseline, but since we were able to get the data from day one, we had a really good opportunity to follow the ongoing development and make the necessary improvements to reach the OEE goal of 65%"

SØREN SKAMRIS JEPPESEN- LEAN PRODUCTION AND PROJECTS SPECIALIST AT SWEDISH MATCH



Operators were also tasked with remembering and performing quality control duties during specific production instances, significantly compromising the quality of their end product.

Swedish Match decided to digitalize its quality control processes using our **Control Recipe feature.** 

Blackbird's proprietary software prompts operators to perform necessary control duties, with pop-ups, scheduled tasks, and operator specific commands that are tracked in real time.

They were amazed by the results.

Reminders, time- stamped to real-time production, meant their operators never missed a step. And all from a system they only intended would automate their data collection process.



Swedish Match further automated its processes by integrating Mettler Toledo scales into its system. With just one click operators could send weight measurements directly to Blackbird for aggregation and analysis.

This also removed the potential for operators to wrong input values, guaranteeing accuracy, and significantly reducing control times.

All the data Blackbird collects is stored in the cloud and accessible through the web from any connected device, making it easier for quality control departments to root out issues when they occur.

By using Control Recipe, a standard feature, Blackbird's system also drastically simplifies the process of performing quality control duties within specified timeframes, defined by various departments, further increasing operational efficiency.

And by not only retaining, but also allowing our customers to export all their legacy data right from the application, which makes it easy for you to leverage historical insights for further analysis and continuous improvements.

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#### PERFORMANCE IMPACTS

# **18% boost in OEE** and digitalized quality process

One of the biggest obstacles to any Smart Factory transformation is the culture shock that comes with the reengineering of familiar processes.

Swedish Match overcame that by adopting a holistic approach to their transformation, both by making sure employees at every level understood their duties and were engaging with the system, and by assuring that the data insights gained through those initiatives were used to support all administrative decisions.

By focusing on incremental changes, supported by data and monitored over time, they were able to improve their OEE from 60% to 78%, reaching their goals far quicker than originally anticipated, and exceeding their initial target.

# Blackbird helped Swedish Match improve by:

- Automating and replacing their errorprone, manual data collection processes
- Giving them real-time data visibility and understanding of their manufacturing lines
- Aggregating historical data, allowing supervisors to respond to quality issues faster
- Digitalizing quality control processes and improving the overall quality of their end-product
- **Reducing resource utilization** by increasing traceability
- An overall 18% increase in OEE

ExonMobil













#### OEE improvement in the 1st year of using Blackbird per vertical









+25%

+21%

+26%

+33%

Food and Beverage

**Industrial Equipment & Automotives** 

Pharmaceutical

Chemical









+23%

+26% +38%

+22%

Construction & Building

Contractor manufacturing

Plastic, paper, packaging

Other

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