2024

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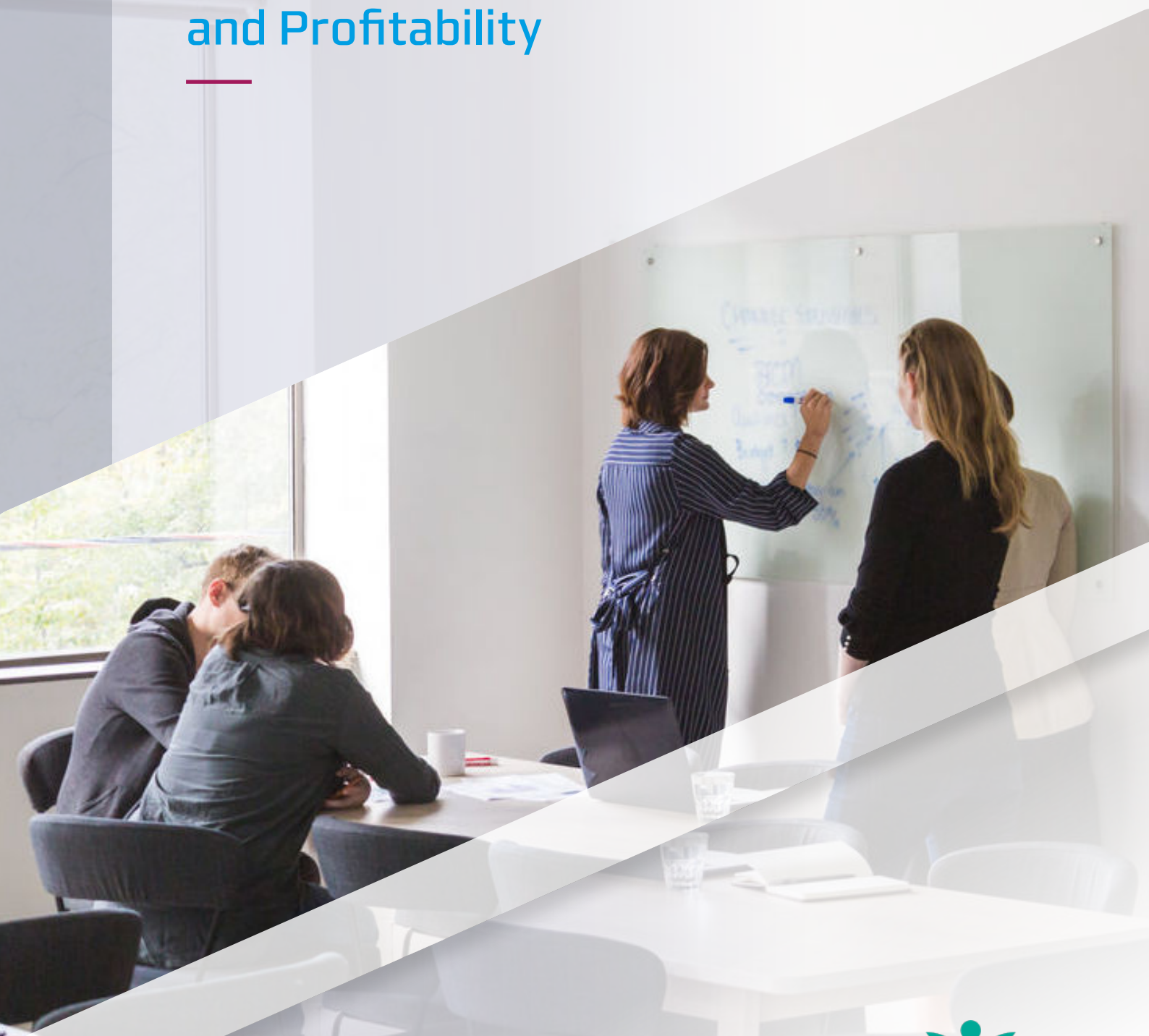
smart factory experts

Foundation Wellness

A journey to Efficiency and Profitability



FOUNDATION WELLNESS

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Foundation Wellness houses a collection of brands providing straightforward and efficient remedies for pain relief, prevention, comfort, support, and overall well-being. Notable names in the orthotic and foot care sector, such as PowerStep®, CURREX®, Foot Petals®, and FLAT SOCKS®, alongside the natural topical analgesic brand Doctor Hoy's®, empower individuals to lead active, pain-free lives. As a leading manufacturer of aftermarket insoles in the U.S., the company produces and distributes insoles, footwear, and foot care products for various firms. With nearly nine decades of experience, consumers have relied on Foundation Wellness for a solid foundation of wellness at every step of their journey.

INITIAL SITUATION AND CHALLENGES

In manufacturing, before implementing a Manufacturing Execution System (MES), Foundation Wellness relied on manual data recording processes, adversely affecting several facets of production. Manual processes were leading to inefficiencies in the management of the shop floor and the long-term optimization.

Lack of visibility impacts the ability to react
The responsiveness to production issues was significantly affected. As a result, there were instances where issues took longer than necessary to be addressed, which had a negative impact on the company's bottom line. The leadership team did not have the information visible to them to react where necessary.

Data deficiency leads to 'Whac-A-Mole' approach in factories
Many factories that lack data systems often face the problem of playing 'whac-a-mole'. This is how Eric Jarvis, Director of Operations at Foundation Wellness describes it. Companies address the problem of the day, rather than taking a long-term approach to solve it. Without having access to data, it becomes difficult to identify the top reasons for downtime and unavailability of the production line over a certain period. Instead of spending time on things that matter, factories end up focusing on day-to-day issues that keep popping up.

Headquarter of Foundation Wellness, United States.

Manual data collection hinders strategic decision-making
The manual data collection did not deliver aggregated data for analysis. Yet, the management relied on this to make the right choice regarding capital and resource investments. Therefore, the management was required to find the actual top losses manually and determine why a production line was down. This required sorting through data, downtime sheets, and manual calculations to analyze and derive insights. A complex, time-consuming and uncertain process.

OBJECTIVES

Hence, Foundation Wellness sought investment in an MES capable of furnishing essential data and analysis to drive efficiency enhancements in production. The envisioned operational paradigm prioritized data-driven decision-making. This approach aims to empower operators, leadership, and management with actionable insights, facilitating continual process improvements aimed at improving the company's bottom line. Key focuses include leveraging OEE data and effective visualization of the shop floor.

”Having the essential information at our fingertips truly enhances our ability to oversee operations confidently and effectively manage our shop floor.”

Eric Jarvis, Director of Operations

ADDED VALUE AND SOLUTION

However, before deciding which solution to implement, Foundation Wellness took certain steps for managing the process holistically. Initially, they focused on building trust and demonstrating the benefits of using MES to all stakeholders. Additionally, processes were established for the continuous improvement of production. After completing these preliminary tasks, Foundation Wellness chose to use the FORCE MES FLEX solution. The new system was introduced in stages to allow for a familiarization phase with the new way of working.

OEE lift of almost 8 % in the first year

After implementing FORCE MES FLEX, Foundation Wellness today has the information to address top downtime losses. Due to their organization’s readiness, aggregated data, and the necessary projects to reduce downtime, they significantly improved OEE from 77 % to almost 85 %. Thus, utilizing smart data improves strategic decision-making. Rather than playing whac-a-mole, the shop floor teams can focus on long-term improvements efficiently.

Scrap down from 4 % to 3 %

In terms of reducing scrap, a former analysis of the monthly scorecard data showed that the average scrap rate consistently remained at 4%. However, the current numbers of this year indicate a decrease to below 3%, which is a significant improvement of one percentage point from the original baseline of 4%.

Enhanced operational oversight for all teams

All teams involved can now stay informed about the operations on the shop floor through the visualization of aggregated smart data. This has reduced the need for tedious paperwork, enabling all people involved to work in a more efficient and modern manner. The visual representation of the production lines allows them to quickly identify issues and respond to them with necessary speed. Additionally, the plant overview provides the managers with a clear understanding of where to focus their attention.

More streamlined production

Machine operators play a crucial role in meeting production targets efficiently and on schedule. The data they provide enables the management to gain insights for making informed decisions regarding resource allocation and workplace improvement. As a result, production becomes more streamlined and can hit its targets with ease. Last not least, it improves the whole work for the machine operators.

CONCLUSION

To summarize, Foundation Wellness has undergone a transformation from having inadequate data systems to becoming a smart factory. The implementation of a Manufacturing Execution System (MES) improved their production processes significantly, streamlining their data recording procedures and enhancing their overall productivity. This transformation was achieved through a shift in the organizational culture towards embracing the use of data. By providing all stakeholders with necessary information to improve processes. This has led to better decision-making and faster response times in the daily operations, ultimately resulting in an increase in the company’s bottom line.

Interview with Eric Jarvis

Director of Operations at Foundation Wellness

Eric Jarvis, Director of Operations at Foundation Wellness

Expert talk with Eric Jarvis, Director of Operations at Foundation Wellness, about the implementation of FORCE MES FLEX solution. Eric Jarvis has been a manufacturing leader for over 17 years in various functions and businesses. His mission: "I am passionate about any applicable systems that support continuous improvement in a factory."
Interview by Alex Gerrish

Who is Foundation Wellness?

Eric Jarvis: Foundation Wellness is a growing health and wellness manufacturer headquartered in Wadsworth, Ohio, U.S.A., where we produce our own branded products and serve as a contract manufacturer for some other prominent brands. In our custom engineering business, we supply product materials for various customers. Our biggest custom-engineered customer is Red Wing, which are red wing boots that most people are familiar with. We also do work for New Balance. And then we have a lot of military customers, as we provide insoles for many military boots.

What led you to seek out a Manufacturing Execution System – MES – solution?

Eric: Primarily, we were seeking a MES to be able to accurately capture how we're running on our shop floor. Secondly, to have essentially a database so that we can analyze to help us prioritize where our top losses are on the shop floor and what we need to work on. Today, the MES serves two purposes for us: One, our front-line leaders can quickly and urgently react to problems through visualizations. Secondly, we do have the database for long-term optimization.

What was the situation like before introducing the Manufacturing Execution System?

Eric: Before having FORCE MES FLEX in action, there was no notification in place. If you were walking by a piece of equipment that was running at that moment, you would not recognize that they had problems the hour before. You could only notice things if the operators were urgently escalating problems fast enough.

"Without data it is hard to determine which is the biggest problem"

How were Data tracked?

Eric: Data were tracked manually. We did not have information like ,this was my top reason for being down and not having my line available'. I had to sort through hours of data, downtime sheets, and manual calculations. It's time-consuming and challenging work to aggregate that information.

What do you tell colleagues in other companies who still hesitate with digitization?

Eric: Without data it is hard to determine which problems causes the biggest impact on the line. In factories that do not have a data driven system, you are playing Whack-A-Mole. I frequently use that terminology and analogy where you are just smacking the problem, and it pops back up. You focus on the problem for the day, rather than looking at the long-term problem and how you can solve it, and instead of spending time on things that matter.

"Major goal is saving the company's money through efficiency"

Eric Jarvis, Director of Operations

Why did you end up choosing FORCAM?

Eric: We had about five to six different solutions we were looking into. Ultimately, we chose FORCAM because it provided the solution we needed at the cost we could afford. FORCAM was the sweet spot to provide us with what we needed:

- OEE data – Overall Equipment Effectiveness – and
- shop floor visualizations that we actually use to help us work.

What is your major investment goal?

Eric: Major investment goal is saving the company's money through efficiency gains on the shop floor, where we can ultimately productively utilize our labor. We want to demonstrate our capability to effectively leverage data, enabling us to inform and support various capital investments strategically. Where are we capacity-constrained? Where do we have opportunities? What do we need to do to free that up? The investment provides that type of information at the higher executive level, and then, of course, provides the downtime information that the people on the floor need to run better every day and give the support more importantly.

What key performance indicators could your and your team improve so far?

Eric: Over the past year, we have observed an average plant efficiency of 77% to 78%. However, in the first seven weeks of this year, we have seen a significant improvement, with an average trending around 84% to 85%.

"Significant improvement of plant efficiency of 7% in the first weeks"

Have there been enhancements in on-time delivery or reductions in scrap?

Eric: Those were not major pains points for us. On-time delivery has always been a strong suit. We have consistently achieved over 99%. However, our focus has shifted towards efficiency in achieving that goal. While we have always met deadlines, the process may have needed to be more streamlined. That is where improvements in OEE efficiency have made a difference. It became easier for us to achieve on-time delivery.

And regarding scrap reduction, I just pulled up the numbers from our monthly scorecard. Last year, we maintained an average of around 4% scrap throughout the year. Currently, we are seeing a decrease to below 3%. That is a significant improvement of one percentage point, which is quite substantial, especially considering the baseline of 4%.

What work did you need to do to make the implementation successful?

Eric: Well, first and foremost, just like any change, there had to be a lot of upfront communication on the shop floor, and you had to be prepared from a leadership perspective to be successful. Those are two critical contributors to successfully rolling out the FORCAM project.

I started with the company in 2020. And of course, we did not go live with MES FLEX until 2023. It was about two and a half years of me being on the floor, working with the team, and starting to develop some basic continuous improvement type systems and high-performance work systems with that group. It is trust that you have to get to be ready and to institute a process like this.

How crucial is this kind of cultural work?

Eric: That is key for anybody to roll out this kind of project. It can't come from just a person who wants this. You have to have the right leadership in place and people in the right seats.

Secondly, it is the communication with the shop floor and the wise folks who have yet to have this visual experience on the shop floor, and the operators. It can be frightening for them, making them feel that is a tool to measure them. But it is more of a tool to measure their equipment. That is what you must show to them as you are going through the process. That is the key to making this work.

And third, we bid the project off in little chunks instead of trying to roll it out to the entire factory all at once. We focused on high-priority lines, equipment and rooms, and then had a path to integrating the whole factory over three to four months. That is how we used to be able to get the buy-in from everybody on the shop floor.

”Be visible on the shop floor, build relationships with the team”

Eric Jarvis, Director of Operations

What concrete did you do to grow a common culture?

Eric: First is building trust: Being very visible on the shop floor throughout the beginning stages of working so that I got a true understanding of what was going on. Then, as I built relationships with my team to find their actual strengths, I moved some of my leadership team around to different functions and different jobs in the leadership team where they could be more successful.

Then we started to institute CIP, some basic continuous improvement concepts. We were starting with what I call a daily direction-setting system or a huddle process, where we are already starting to look at some forms of data at different tiers of the organization, where we are starting to measure information or utilize information to measure how we are working on a day-to-day basis. And I started to work that with my team.

From there, it gave us some of that preparation work and work that we needed to do to roll it out, as well as some change management.

Which specific challenges did you encountered during the implementation?

Eric: We had to work closely with the FORCAM team to make sure that the solution matched what we needed. There were some bumps in the road, as expected. But the FORCAM personnel that was deployed to us was excellent – very responsive, very helpful, challenging. They were always by our side throughout, never left us hanging.

”Build up trust, form the right leadership team, roll out in chunks”

The other challenge was the change on the shop floor, with some of the operators not liking the fact that you could see how they were doing all day long. You had to get them involved in the process. The main thing is ensuring you are not making it harder but very easy for them: All the touch applications and the input of data, they do not have to walk very far, most of them at their arm’s distance away. Other things had to be taken off their plate - paperwork specifically as a trade-off.

Who is looking at the data and how often?

Eric: You have to build the data into your daily routine instead of having one person looking at the data once a month. That’s key: How are you utilizing the data on a daily shiftly basis? You have to look at it daily, shiftly, hourly. It has to be built into your manufacturing systems, where your shift handoffs are geared towards the information that’s coming from the FORCAM system, your daily huddles with your management team, you’re looking at the FORCAM data in some form or fashion. It has to happen that way or it won’t be successful.

Example picture of Shop Floor (Meeting) at Foundation Wellness

"Utilize the data on a daily shiftly basis, empower the team"

Eric Jarvis, Director of Operations

Could you tell us about the impact the system had on your operators and supervisors?

Eric: Absolutely. It really boils down to communication and urgency. For our shop floor team, this system provides a structured way to see the results of our coaching efforts. We emphasize the importance of accurately tracking downtime and keeping open lines of communication.

By doing so, we empower them to play a proactive role in improving operations. This data gives us solid ground to justify investments in tools or equipment that can streamline their work and minimize downtime. We not only explained the benefits but also followed through with tangible projects to illustrate the value.

From a supervisory perspective, the system offers unparalleled visibility. With iPads in hand, supervisors can monitor multiple production areas simultaneously. They no longer need to physically traverse the entire floor to gather information. The moment a line indicates a problem, they know exactly where to focus their attention, optimizing their response time and overall efficiency.

Thank you very much!

Contact us for further information:
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