Leveraging healthcare and critical environment experience to launch EAM in the food and beverage industry

Client

International food and beverage organization.

Challenges

With manufacturing sites in 20 countries and billions of dollars in production and utility assets, this organization recognized the need for increased optimization and prioritization of strategic infrastructure investment needs.

Results

Brightly (previously FHI) successfully introduced enterprise asset management (EAM) and the Brightly Origin capital planning solution. As compared to the FHI average of 46% of assets in deferred status, we documented the following:

- Production assets were below the average at 36%
- Utility assets were dramatically higher than the average at 69%, indicating a need for significantly high capital investment
- The client is seeking to expand this approach to capital planning at additional sites to standardize EAM processes around the globe
Regardless of industry, limited financial resources and the constant need to reduce costs are the norm. This is particularly true in the food and beverage industry where facilities that have high infrastructure density are also highly regulated to ensure product integrity, quality and safety. In this case, Brightly was asked by corporate leadership to address separate, but highly interdependent problems, starting with a detailed assessment of a multi-million square foot facility in the US.

The first concern was the lack of ability to document and forecast longer-term capital needs beyond the next fiscal year planning process. Utilizing subjective inputs and inefficient attempts to consolidate spreadsheet data from individual sites, there is simply no way to objectively prioritize and allocate capital with a high degree of certainty. Subsequently, priority is often assigned based on real or perceived emergent needs, or simply based who yells the loudest.

The second concern has larger and more strategic implications to plant performance. While assets tied directly to production are well-managed and maintained, with a clearer line of site to future investment needs, there is typically much less confidence in the utility asset portfolio – Electrical Distribution, HVAC, Plumbing, Fire Alarm and Suppression, and Building Envelope assets that indirectly support the production environment. Unplanned failures with any of these assets can negatively impact productivity through shutdowns, or in the worst cases, lead to product loss and/or contamination. Brightly was tasked to confirm and quantify this hypothesis.

How much should we invest in infrastructure and where should we invest to maximize facility performance?

Our approach

With a constant focus on risk mitigation, the Brightly team of highly-skilled individuals utilized a proven methodology for the foundational elements of EAM, gleaned from years of practice in the critical healthcare environment. For production assets, this included intense collaboration with the customer manufacturing engineering groups to better understand the specific requirements of production equipment, particularly those assets that were proprietary in nature. For utility and commercially-sourced assets, the existing database guided the client through the following critical steps:

• Establish and confirm consistent naming conventions for individual assets, asset types and location hierarchies
• Configure the Origin solution to fully align forecasting capabilities at the same level of detail as the assets are managed and maintained in their existing CMMS
• Introduce a robust, objective and well-documented risk ranking framework to identify assets that are most critical to the business. In this effort, Brightly aligned our recommended risk definitions with existing corporate standards AND to bring additional considerations of risk to further prioritize investments
• Deploy engineering resources to validate asset inventory, visually assess condition, document critical engineering attributes and establish a baseline condition score
• Develop initial 1- to 10-year capital plans, confirm preventive maintenance operational budget requirements, and utilize Origin analytics and benchmarking capabilities to predict the impact of different investment scenarios
• Create a foundation to prepare for integration with the CMMS so that operational and performance data is used to modify, real-time, future capital needs without the need for ongoing manual assessments
• Dynamically monitor asset condition through the Origin Facility Health Index™ performance metrics
The results

As reviewed with the client’s leadership, the results of this effort were significant and impactful, providing a level of detail and planning capability previously unknown or unseen. At both a strategic and tactical level, Brightly was able to address the original concerns of the leadership and provide the following feedback:

- The production asset portfolio was indeed better managed than the utility asset as measured by deferred maintenance levels and the Facility Health Index, using age, condition and past investment trends as common inputs.

- Production asset deferred maintenance was at 36%, slightly below the benchmark of 46%, although risk-based forecasts revealed opportunities to redirect funds to higher priority assets.

- Utility asset deferred maintenance was at 69%, significantly higher than the benchmark across the board, confirming the original subjective hypothesis that this could be an area of concern.

- Armed with data, Brightly assisted the client in the construction of more detailed capital investment “swim lanes” and to consider long-term investment strategies for all asset types, with a focus on stabilizing the age and condition of the utility asset portfolio.

- The client is seeking to expand this objective, risk-based approach to capital planning at additional sites to standardize EAM processes around the globe.

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Deferred maintenance defined

Deferred maintenance is the accumulated replacement value of assets that have exceeded industry-expected useful life, by age and/or condition. These assets are not necessarily in imminent failure mode but should be considered for replacement.

Tracked as a percentage of the total infrastructure asset portfolio value, increasing deferred maintenance over time is an indication of risk for an organization. Currently tracking over 112,000 assets, with a combined replacement value exceeding $11 billion, the Brightly Origin deferred maintenance average is 46%.

Do you know your deferred maintenance levels? Do you know how much to invest to affect that percentage? Please contact us to learn more.

"With a constant focus on risk mitigation, our team of highly-skilled individuals utilized a proven methodology to deploy the foundational elements of EAM, gleaned from years of practice in the critical healthcare environment."

Mark Mochel
Strategic Account Executive, Brightly

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