

Crossing the yellow line

How Integrated Facility Management optimizes production



leadec

Changing production and operating models

From early 2020 onwards the food and beverage sector faced potentially significant disruption challenges, in common with other sectors globally. As a sector it coped and managed better than many others, largely maintaining production in the face of severe workforce stresses and pressure on supply chain logistics.

However, many of those issues remain to be solved, while further challenges are emerging. There is a consensus that innovative companies in the sector are therefore now looking at transforming their ways of working and the solutions to enable this.

Moving through 2021 and 2022 many of the sector's major players began to see the need to change aspects

of their production and operating models, and this is clearly reflected in the perceptions expressed in a number of sector surveys where companies indicated their intentions for the future shape of their business process.

A common view across companies participating in the surveys is the need to optimize the use and availability of production assets and plant. The negative impacts of lost production from asset downtime are all too apparent in sub-optimal plant output levels and turnover.

Companies in the sector are considering a range of potential solutions for this, from capital investment, to hiring more technicians, to outsourcing their asset maintenance to specialist partners.



Food & Beverage sector challenges and opportunities

It's clear from the recent surveys and research in the food and beverage sector that there are common challenges which negatively impact most companies. The most important ones are the under-utilization of assets and maintenance costs.

Under-utilization of assets

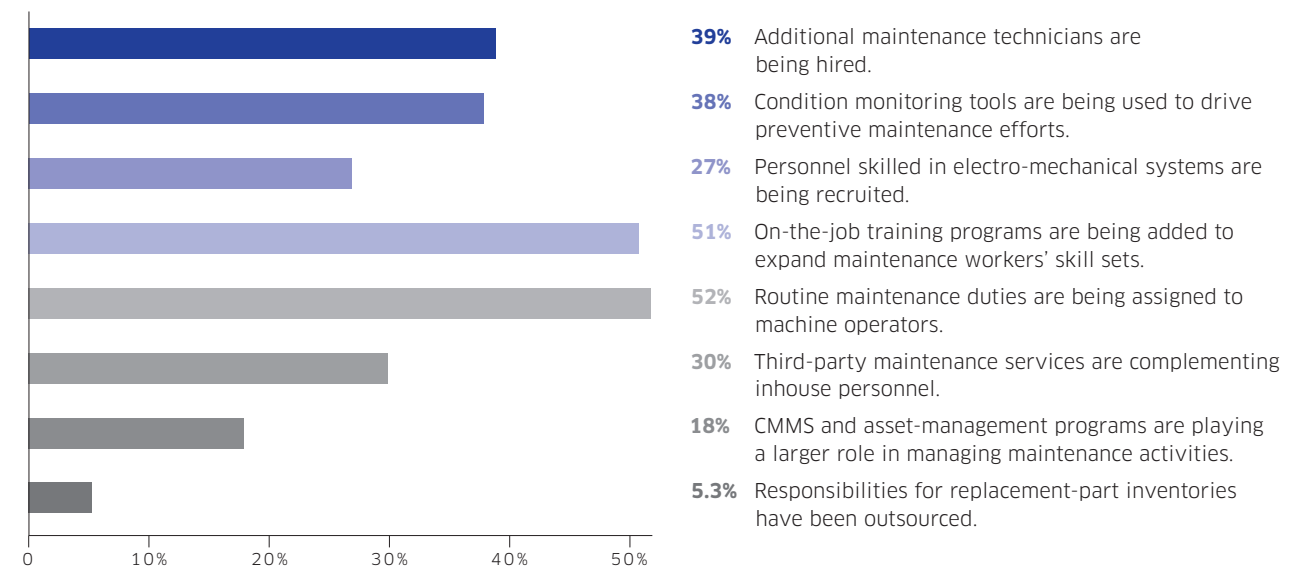
81% of survey respondents in the Annual Manufacturing Outlook Survey are prioritizing efforts to optimize the production output capabilities of their plants and assets, with a strong emphasis on seeking to hire technicians and strengthening the technical skills base in the business.

38% are also seeking to implement condition monitoring tools to enable the transformation of maintenance to a preventive approach.

So, the search for asset optimization, higher productivity and mitigating the losses incurred by downtime is drawing companies towards:

- Seeking to hire and retain maintenance technicians
- Looking for IT systems to monitor assets and support preventive maintenance – respondents clearly recognize the strong potential of IT tools for asset monitoring, data capture and analysis to drive asset intelligence, which will enable fact-based preventive maintenance to improve plant uptime and reduce costs

Maintaining production and packaging systems in today's food and beverage plants is essential. What strategies, tactics and tools does your organization use to optimize asset use?



Source: Survey findings from the Annual Manufacturing Outlook Survey, published January 2021 by Foodprocessing.com

However, there are problems with these approaches. Firstly, companies in the sector are perceived as production experts and not centers for engineers and technicians, which is making it difficult for them to recruit and retain sufficient numbers of technically qualified and experienced people. It also adds further labor costs to the business, rather than streamlining the maintenance function and resource. Labor markets show critical shortages of qualified technicians. Meanwhile the lead time and investment for multi-skilling and retaining employees with the necessary technical competencies and qualifications is long, expensive and uncertain.

Secondly, selecting and integrating the right IT systems, applications and tools is complex and requires expertise – they are not sold as a simple single system.

The combined effect of trying to implement these two approaches is to add cost to the business while simultaneously drawing resource away from the core business of production output. It means that the success outcomes of making these changes in-house is often marginal at best.

A more strategic and certain approach is to partner with an asset/plant maintenance specialist. An outsourcing partner can bring a depth of technical and engineering expertise and qualified labor resource, and if the right partner is chosen, they may have a technology solution already in use which can be implemented at the companies' plants.

'Yellow lines' and maintenance costs

52% of survey respondents in the Annual Manufacturing Outlook Survey say that they are having to assign routine maintenance tasks to machine operators. This is a concern – it raises questions about negatively impacting the productivity of the operators and the equipment, and whether the operators have a sufficient level of technical training and knowledge to efficiently and safely deliver the necessary maintenance.

Interestingly, 30% of survey respondents say that maintenance tasks are being outsourced to third party service providers, reinforcing a growing trend.

A barrier to genuinely streamlining the maintenance operations on production assets is the traditional 'yellow line' demarcation. Some organizations apply this demarcation between in-house maintenance teams who work on production machinery and equipment within the yellow line, and outsourced facilities services teams who are only permitted to maintain non-production assets outside the yellow line. There are several problems with this approach:

- It has its roots in early 20th century work cultures and does not reflect the workplace innovations and solutions rapidly evolving in the 21st century
- It's an obstacle to streamlining of the maintenance function and blocks key opportunities to reduce costs
- It potentially duplicates costs, by operating two maintenance teams and the associated overheads
- In-house maintenance teams often become isolated in a technical 'silo' – they are largely guided by maintenance regimes designed by OEMs, which focus on preserving what's best for the asset/

equipment rather than the needs of the production site where the asset/equipment is located

- It cuts off the in-house maintenance team from global learning and innovation in maintenance techniques and IT technology components, which now moves at a fast pace in offering dynamic new solutions

But we can see that these problems can be solved through a single solution – outsourcing to a maintenance service provider with the experience, knowledge and technical resource to work on all assets on both sides of the yellow line. This makes the demarcation redundant, enables the in-house maintenance team to assimilate into a single streamlined team for the whole site and its infrastructure, leverages innovation and new solutions for the production machinery, and measurably reduces maintenance costs.

And it's not just maintenance that can benefit from this strategic change. An increasing number of the larger food and beverage players have secured, or are actively seeking, a service provider partner who can deliver virtually all of the support services they need.



Integrated FM increases productivity

Many companies are trying to implement some of the traditional approaches to address issues like machine downtime or lack of skilled staff, but the problem with piecemeal solutions is that they only yield partial results.

Survey respondents of the State of Industrial Maintenance Report 2021 offer the following stark facts:

- 80% state that machine downtime is damaging productivity at their plants
- 36% report problems with experienced people retiring from the workforce and the skills gap this leaves
- 49% struggle to recruit people with technical skills

So maybe the right question to ask is 'what do we want our employees to actually do?'. When the question is phrased this way the answer is usually unanimous - to focus on production and sales.

Many companies in the sector are looking for a more strategic and fundamental solution to the current and future challenges, and are actively looking for support service partners capable of freeing them from constantly having to make incremental changes to address key limitations in their current business process. This strategic solution can be summarized in two concepts:

- 'Crossing the yellow line' - identifying a specialist facilities partner who has the right experience, knowledge and tools to deliver efficient and reliable maintenance to production assets and plant, and remove the traditional demarcation 'yellow line' between in-house and outsourced maintenance teams
- Integrated Facilities Management (IFM) - outsourcing a wide scope of support services to a capable

specialist facilities partner, to liberate their own people to simply concentrate on its core business functions of production and sales

'Crossing the yellow line' and IFM will doubtless be a strategy with momentum in the food and beverage sector, so this is an opportune moment to explore the concepts, how they can work together, and who is capable of implementing them to reap the rewards.

The benefits of moving towards an IFM model

Implementing an Integrated Facilities Management (IFM) model does require more strategic alignment with regards to definitions of the requested output or outcome of the services in scope. It would also require you to align your supplier management organization to a more partnership-oriented model.

Under an IFM model you typically not only outsource the operational activity of the services, but also a portion of the tactical and the strategic alignment would become a joint responsibility for you and your future partner. Usually what we see as an IFM package is a consolidation of Hard (technical) and Soft (non-technical) services.

Hard services include asset/machine maintenance, mechanical & engineering equipment, HVAC, BMS, and building fabric maintenance & repair.

Soft services include janitorial/cleaning, mail room, grounds maintenance, pest control, waste management, transport, office support services, and food.

In the future we expect this to expand further into the production areas, as there is clearly much untapped potential on that side of the 'yellow line'.

For food and beverage producers to be able to simply concentrate on the core business, an attractive strategic solution is outsourcing support services through an Integrated Facilities Management (IFM) model. With the right IFM partner this offers:

- Freedom from allocating your people resource to non-production activities
- Clear focus on production and sales
- A single interface with one primary provider, which profoundly simplifies procurement and client management of service providers
- The right IFM provider with technical knowledge and ready-made technology solutions provides a

faster route to optimized assets and production levels

- A committed and accountable long-term partner aligned to your objectives of maximizing production output and the needs of the company's assets
- A partner with a strong focus on providing an excellent workplace experience for your employees
- Streamlining of all support services through a single efficient model
- Accessing innovation, technology and best practice across all support services
- Driving and achieving defined cost savings through a clear facilities budget and explicit contract focused on delivering outputs

Cost reduction and efficiency gains

The outcome is to increase asset uptime and reduce maintenance costs. Typically these are:

More than

10%

increase in system availability

More than

10%

increase of first run rate

More than

15%

reduction of total cost of ownership

Case Study

Better Quality and Cost Savings

A good example of how production processes can be optimized through outsourcing can be seen at a leading company for packing in the F&B sector. In its plants in Brazil, Leadec has been providing the company with services for more than ten years, ranging from equipment maintenance and technical cleaning to technical support of the production facilities.

Leadec exponentially improved the company's performance in equipment renewal within three years to ensure that all needed material is always available. In 2018, the spare parts stock had a 78% accuracy rate, by 2019 it had improved to 81%, and through our asset intelligence processes reached an outstanding 99.98% in 2020. The stocks for renewed equipment had already been tackled earlier and attained 100% availability.

During this period the company increased its delivery capacity by 165% while maintaining the same number of activity specialists, and improved its on-time delivery rate from 7% to 94%. Leadec also helped to significantly reduce the number of complaints, ending 2019 with only two low-risk records.

The increase in quality was combined with time and cost savings achieved through outsourcing. There is added value, for example, through the training of the company's workforce by Leadec to make production processes safer and more efficient. To assure compliance with strict food industry regulations, Leadec established special routines for inspecting inputs, production, packaging, transport and storage. As a result, all data is properly recorded, centralized and intelligently processed to evidence compliance with the regulations. The digitization of business processes and leveraging data are key to meeting the present and future sector challenges.



A Partner for IFM and more

Solutions have been evolved to meet these challenges head on. Our experience is that fresh thinking, coupled with technical expertise and investment in integrated IT solutions, provides an effective pathway for food and beverage producers to get to the next level.

Integrated Facilities Management (IFM)

Outsourcing of maintenance alone will bring measurable gains, but the IFM approach leverages a wider range of value benefits:

- Reduction of the total cost of ownership
- Streamlined and efficient service delivery with cross-trained multi-skilled teams
- Partnership commitment which delivers accountability, shared risk & reward, drivers for innovation, and long-term value
- A single interface with just one lead service provider partner

Technical resource & expertise

Outsourcing partners who specialize in factory engineering and asset maintenance have the depth of qualified technical resource to solve the talent shortage. Leadec has been this type of partner for over 60 years, embedded in customers' factories and providing efficient engineering services every day. As an outsourcing partner Leadec is trusted on both sides of the 'yellow line'.

Leadec works by forming tailored maintenance concepts that manage technical and administrative processes equally. This

views production as a holistic end to end process, where the risk of failure must be minimized, and the whole lifecycle of the facilities must be simultaneously maximized. The objective of the tailored maintenance solution is to optimize every stage in the process and the lifecycle of the assets & equipment. This is much more than just 'maintenance' – the customers' production facilities are where Leadec feels most at home and adds value.

Integrated IT solution

To compete in a global marketplace, food manufacturers must digitize network production processes and ensure that all data is documented in a legally compliant manner. To meet these requirements, Leadec offers the Leadec.os solution which digitizes the entire end to end service/production process. The platform creates maximum transparency regarding planning





and provision of all services. Customers can digitally view and control all relevant service processes connected with production and intelligently use the data obtained.

Leadec.os automates, focuses and streamlines the maintenance operation, which helps guide technicians and engineers to deliver the right maintenance inputs at the right time to keep production running. An own IoT home cloud complements the platform and can be used, for example, to evaluate sensor data in real-time to arrive at preventive maintenance to proactively deal with imminent machine failure.

The platform creates a decision-making system through which the company and the service provider can jointly make processes significantly more economical, qualitatively better and more flexible. The optimization potential that the networked factories of the future can achieve effectively drives greater productivity in the plants.

Acknowledgements: Survey findings are from the Annual Manufacturing Outlook Survey, published January 2021 by Foodprocessing.com, and from Industrial Maintenance - Status, Trends + Forecasts Report 2021, published by ATS Inc.



About Leadec

Leadec is the leading global service specialist for factories across their entire life cycle and related infrastructure.

The company, which is headquartered in Stuttgart, Germany, employs about 20,000 people worldwide. In 2021 Leadec earned sales of around EUR 940 million. For 60 years Leadec has been supporting its customers along the entire production supply chain. The service provider is based at more than 300 sites, often directly at the customers' plants and facilities.

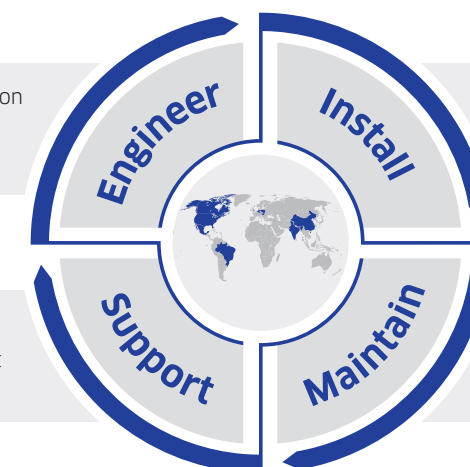
The Leadec.os digital business platform is used to record all processes end-to-end and integrate further digital service solutions.

Leadec has been a reliable partner for customers in the food & beverage industry for over 30 years, serving a wide range of F&B customers worldwide across the entire life cycle of their portfolio.

To meet our clients' changing needs we have developed an effective, efficient and scalable IFM model so that we can deliver all of the support services and free our client to focus on their core mission.

Leadec's global services comprise

- Production Planning and Optimization
- Automation
- Production IT



- Electrical Installation
- Mechanical Installation
- Relocation

- Technical Facility Management
- Infrastructure Facility Management
- Logistics

- Production Equipment Maintenance
- Technical Cleaning

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