



VAN METER



smart

SOLUTIONS SUMMIT

**REACH PEAK RELIABILITY WITH PREDICTIVE
MAINTENANCE TOOLS & TECHNOLOGY**

WELCOME



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Learn how to develop a reliability strategy that integrates predictive maintenance tools and technologies with equipment lifecycle management, technical support and training. Plus, you'll see how internal collaboration and change management drive improvement in key maintenance and reliability metrics.

QUICK POLL

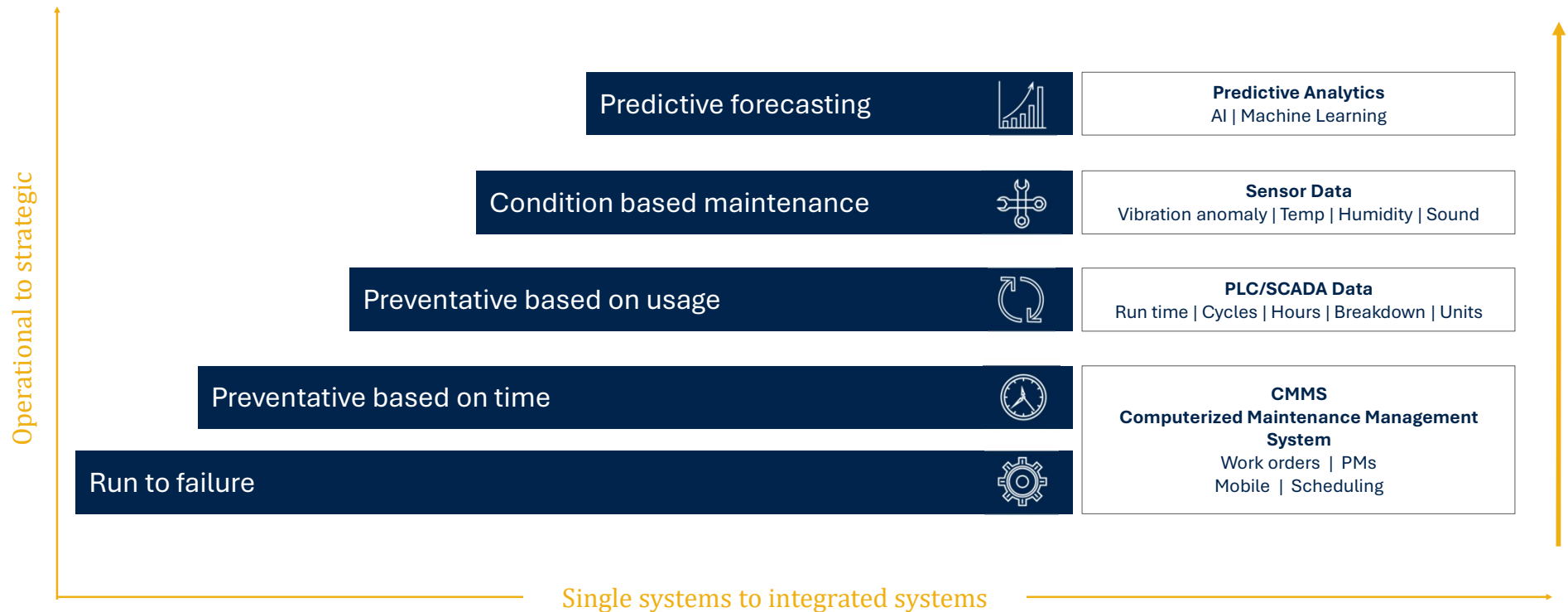
**WHERE ARE YOU IN REGARDS
TO PLANT RELIABILITY?**

Reactive

Proactive

DIGITAL MAINTENANCE JOURNEY

Fiix's CMMS supports customers through that journey from basic maintenance strategies to more sophisticated programs



CAN ANYONE RELATE?



LABOR SHORTAGE

The U.S. Bureau of Labor Statistics estimates a shortage of more than 2 million manufacturing workers by 2025, with more than 10,000 boomers retiring daily.

According to LNS Research in their 2019 Connected Worker eBook, this impacts manufacturers as valuable skills, experience and institutional knowledge are lost.

**DO YOU KNOW
WHERE MOST OF
YOUR
DOWNTIME
TAKES PLACE?**

Operator Error

Mechanical Failure

Network Issues

Aging Infrastructure

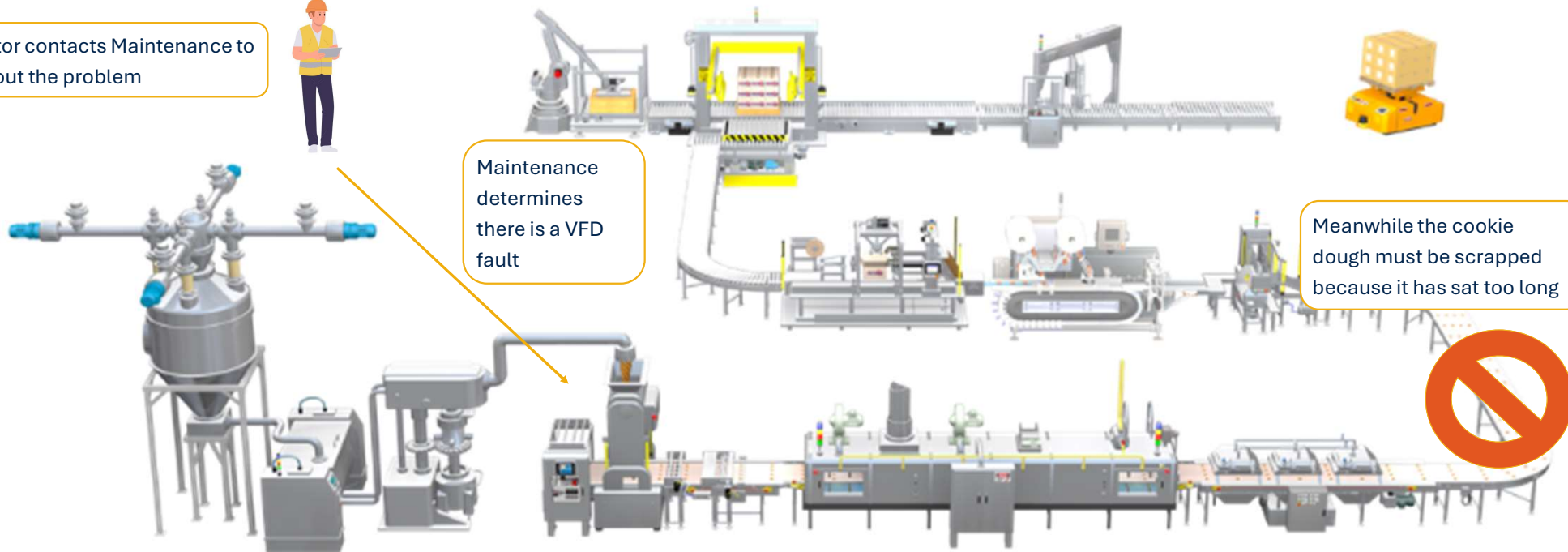
PROBLEMS HAPPEN...

WHAT DOES THIS LOOK LIKE FOR YOUR PLANT IF YOU DON'T HAVE A PLAN?

Operator contacts Maintenance to figure out the problem



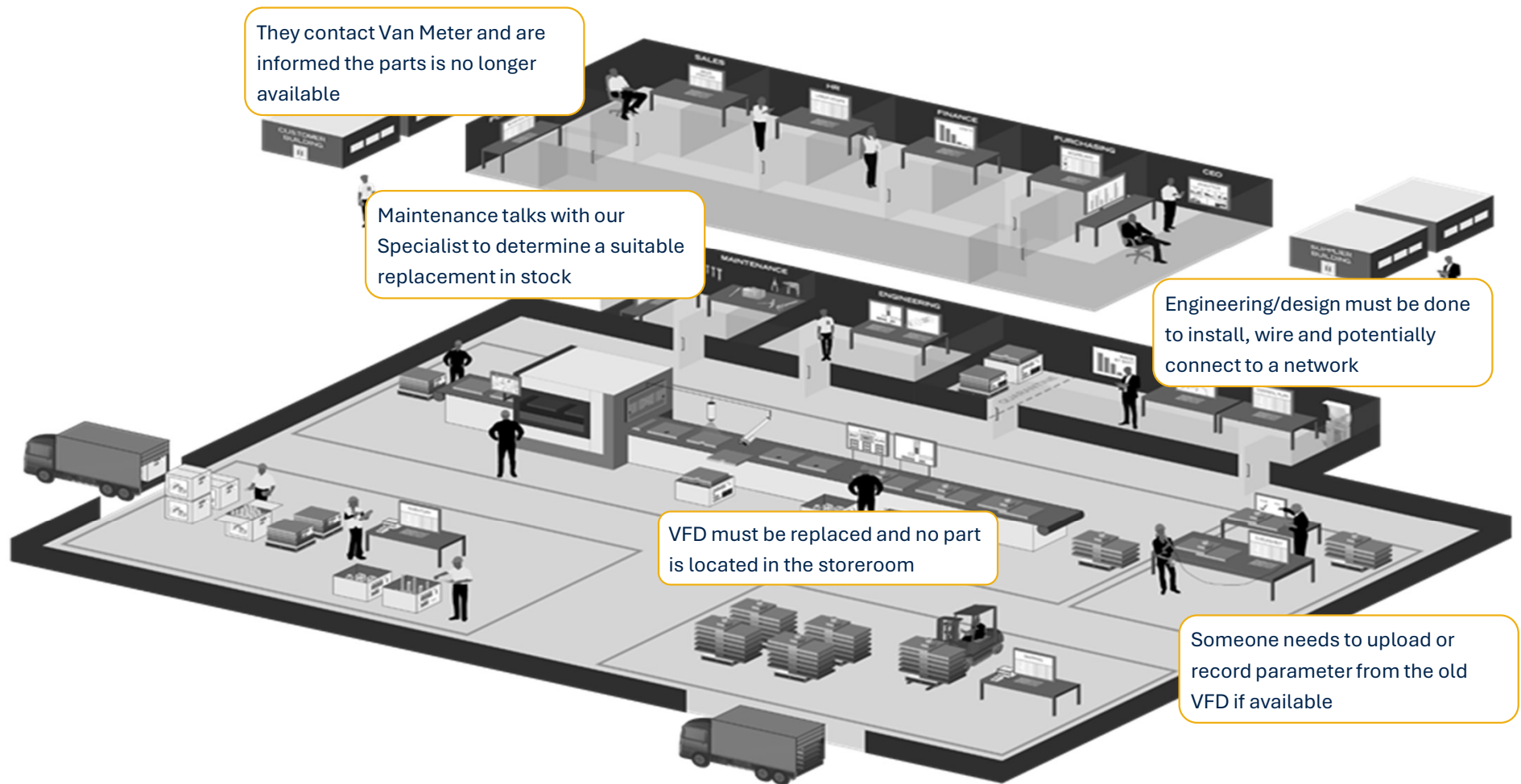
Maintenance determines there is a VFD fault



Meanwhile the cookie dough must be scrapped because it has sat too long



Machine has a shutdown which cannot be reset (not the first time)





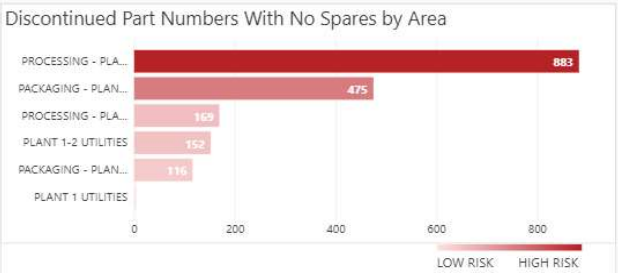
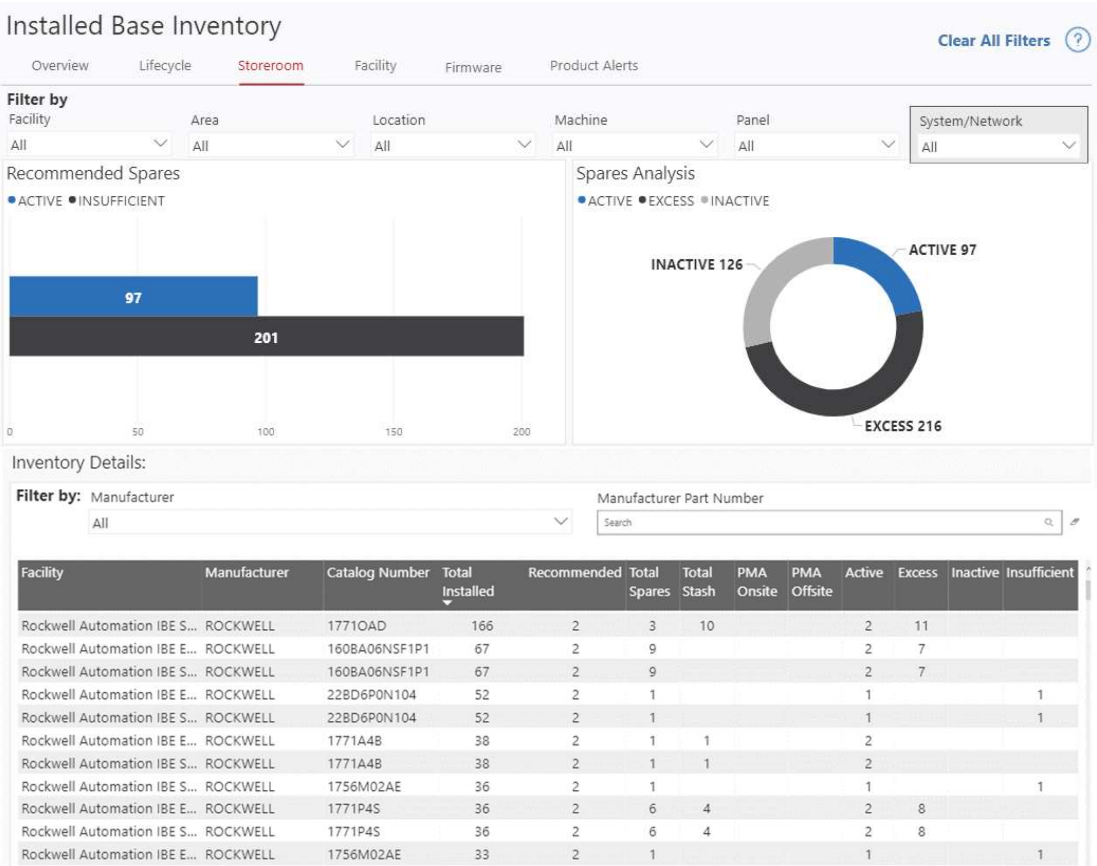
OVERALL DOWNTIME COULD BE
8-18 HOURS



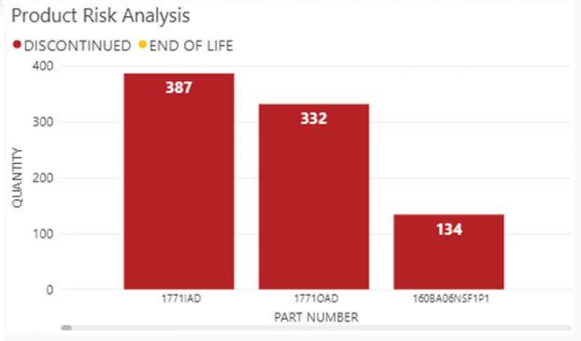
OK, NOW THAT WE HAVE YOUR ATTENTION...

LET'S BUILD A PLAN.

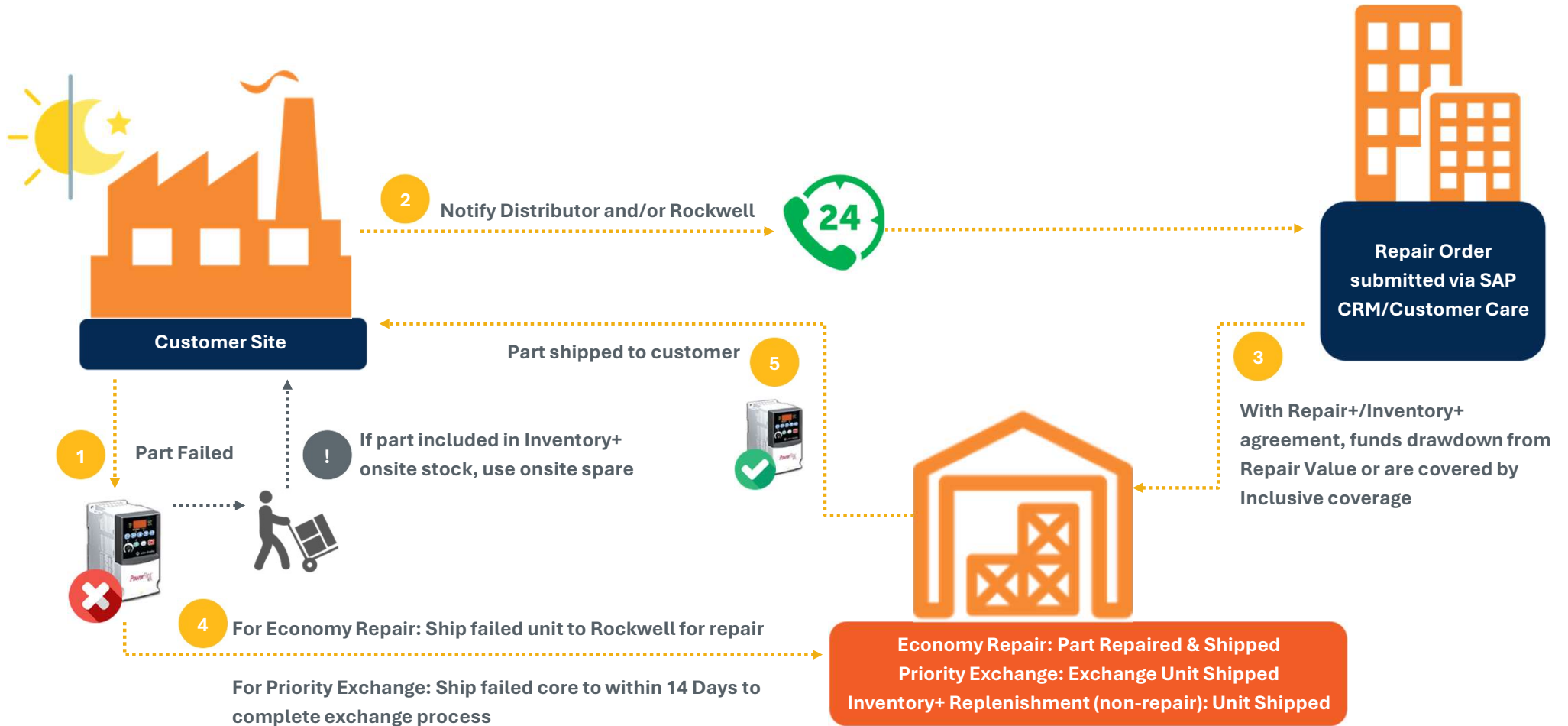
DO AN ASSESSMENT OF YOUR INSTALLED BASE



There are **7** areas with parts that have been discontinued and do not have any spares in the storeroom.



MAKE SURE YOU HAVE THE PARTS YOU NEED



IDENTIFY YOUR SKILL GAPS



IDENTIFY SKILLS GAPS

- Define the skills required of the job and evaluate workers against that expectation
- Pinpoint the areas of improvement

RIGHT TRAINING AT THE RIGHT TIME

- Target the training for the gaps that exist and tailor it to the time frame you need
- Pick the modality that works best for the employee and their situation

COST-EFFECTIVE

- Investing in an assessment is a cost-savings in the long run
- Spend training budgets on training that you're confident will be impactful

MEASURE PROGRESS

- Create a baseline ahead of training
- Measure progress over time utilizing a follow-up assessment

EMPLOYEE ENGAGEMENT

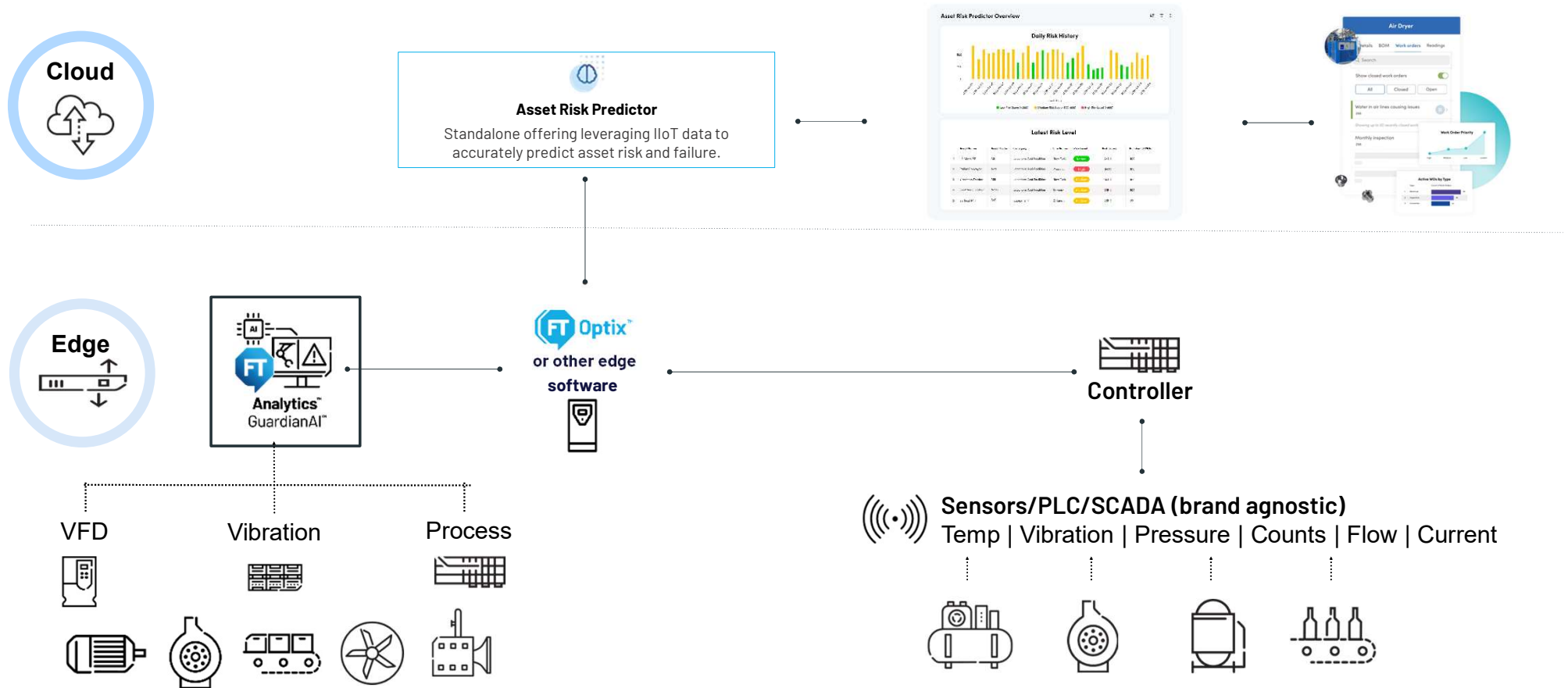
- Employees are more likely to be motivated when they see their employer invest in them, specifically in training that directly applies to their job



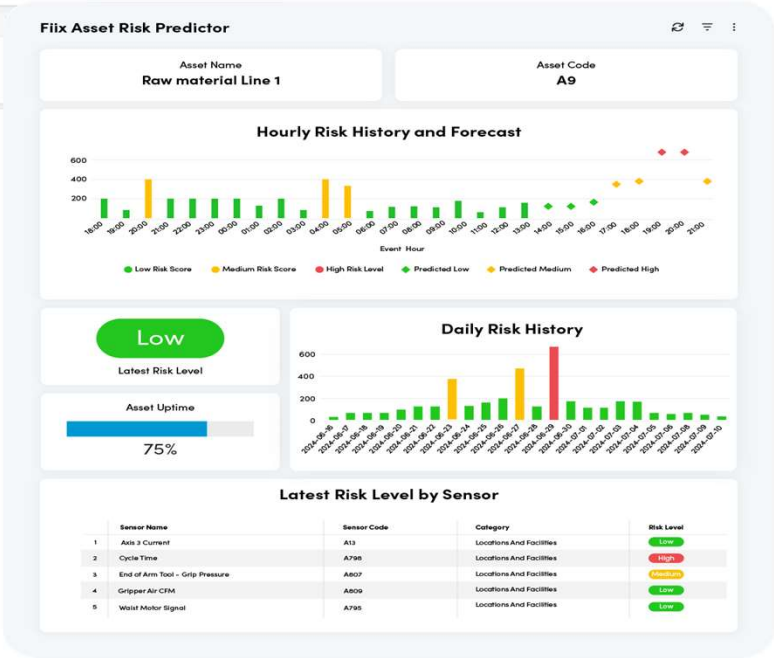
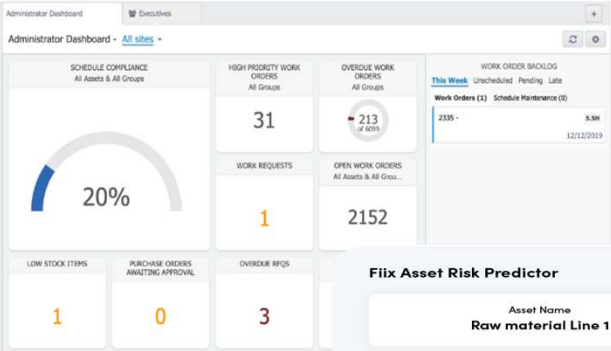
YOU HAVE YOUR PLAN...

TOOLS AND TECHNOLOGY

REAL-TIME VISIBILITY OF OUR ASSETS/TOOLS



MANAGE YOUR RELIABILITY PROGRAM



Work Order Administration: WO 129309

Work Order Status
Asset
Forklifts (A25)

Maintenance Type
AI-Predicted

Priority

General Completion Labor Tasks Parts Meter Readings Purchase Order Misc Costs Page Businesses Notifications

Summary of Issue

Potential issue with the John Deere 350 sensor, indicating a severity risk of 746.97 on Nov 21, 2023. Regular inspections recommended, especially focusing on battery maintenance and sensor attachment health. Ensure adherence to safety measures, like avoiding skin contact with battery electrolyte and using insulated tools. General machine maintenance, including proper ventilation.

Problem Code

Work Instructions

- Battery Maintenance a. Always ensure the battery is fully charged after usage. b. Avoid welding with a battery that has low charge c. Maintain sensors to monitor battery charge condition d. Ensure the operating temperature is below 120 degrees Fahrenheit when charging e. Equip battery with low voltage protection system to avoid substandard weld and rapid heat build-up f. In case of acid spillage or overheating, use baking soda to neutralize the battery acid
- Safety Measures a. Avoid skin contact with battery electrolyte b. Use insulated wrenches and tools to avoid shoring batteries c. Seek medical treatment immediately in case of contact with electrolyte d. Ensure machine and battery are kept upright at all times e. Do not attempt to charge a frozen battery f. Ensure the machine is operated in a well-

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Description

Battery Maintenance a. Always ensure the battery is fully...

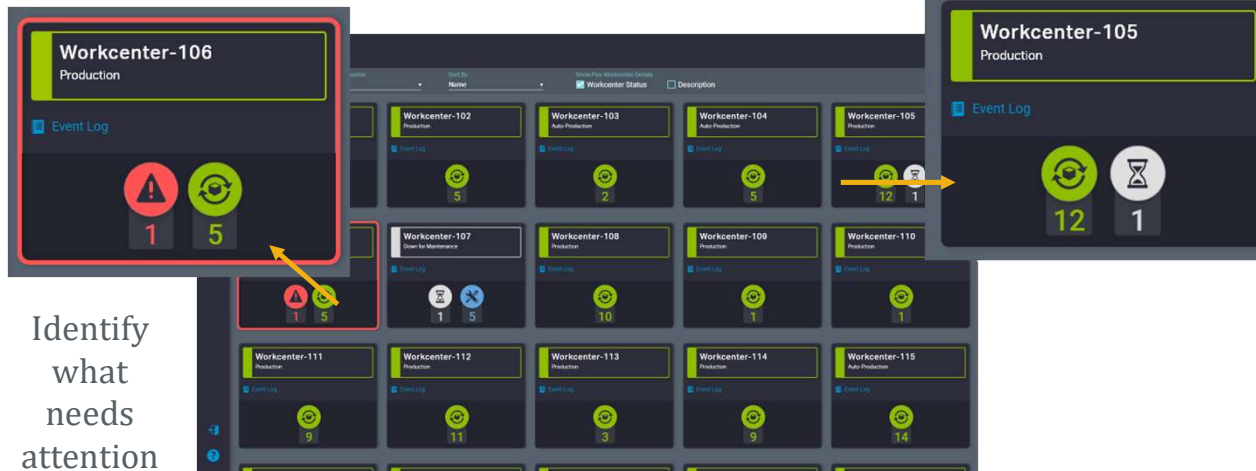
Safety Measures a. Avoid skin contact with battery...

Sensor Attachment Maintenance a. Sensor attachm...

General Maintenance a. Ensure the machine is not...

REAL-TIME MACHINE HEALTH

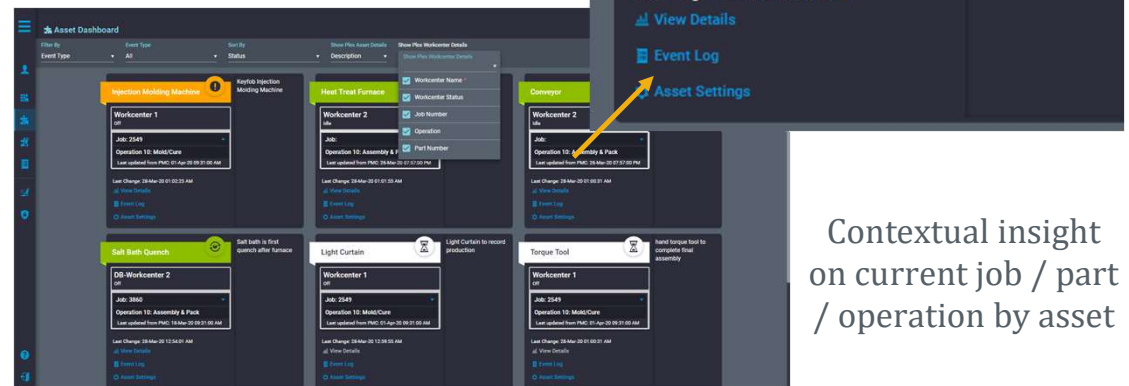
PLEX
by ROCKWELL AUTOMATION



Factory view. Asset groupings and live statuses of individual assets (including non-production equipment)



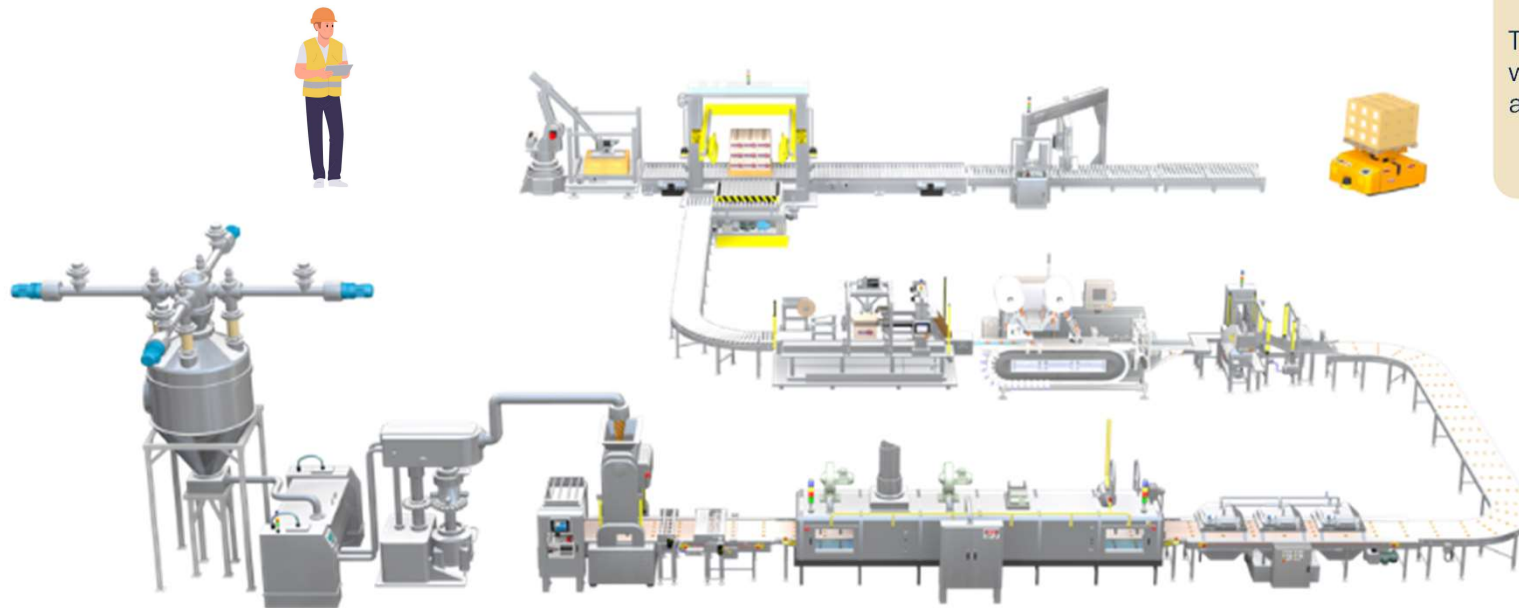
Mobile ready
View anywhere



Contextual insight
on current job / part
/ operation by asset

PROBLEMS HAPPEN...

BUT YOU ARE PREPARED.



The digital CMMS **automatically** creates a work order

The VFD is replaced with a part that has already been kitted.

Team performs a root cause failure analysis of the data collected

Findings show the changes that can be programmed into the machines.

PREDICTIVE MAINTENANCE TOOLS HELP YOU PREPARE



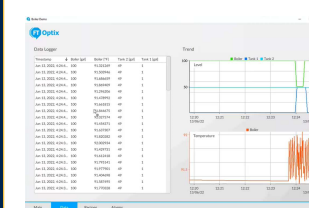
GuardianAI



**Plex Asset Management
(APM)**



Fiix



FTOptix



**Installed Base
Evaluation (IBE)**



**Inventory+ (Inventory
Management Services)**



**Integrated Service
Agreement (ISA)**



**Workforce development
(training)**



TechConnect

THINK ABOUT YOUR PLANT.

Do you know the lifecycle status of your installed assets?

Does your storeroom align to your plant floor critical spares?

Does your workforce know how to troubleshoot and support your equipment?

Do you have full visibility into your asset health?

- **How long does it take to identify?**
- **How long to correct the issue?**

Where are you in regard to reliability: reactive or proactive?



QUESTIONS?
THANK YOU!