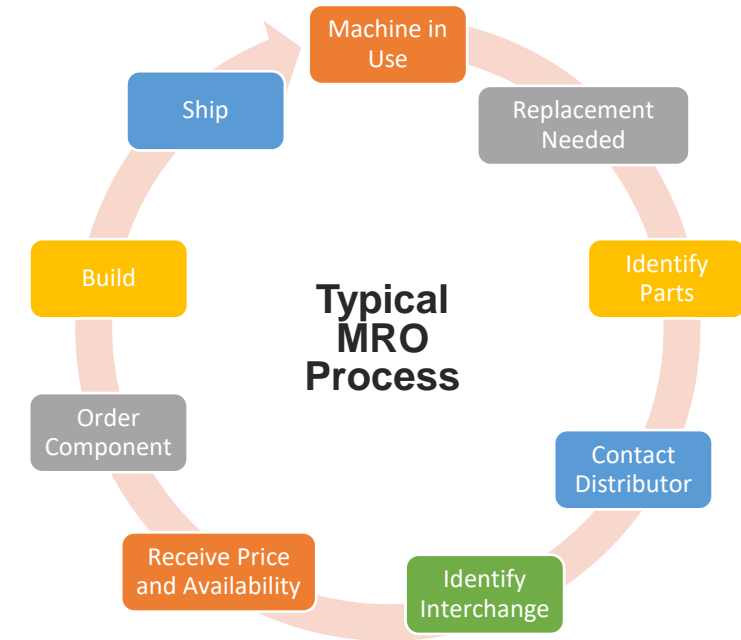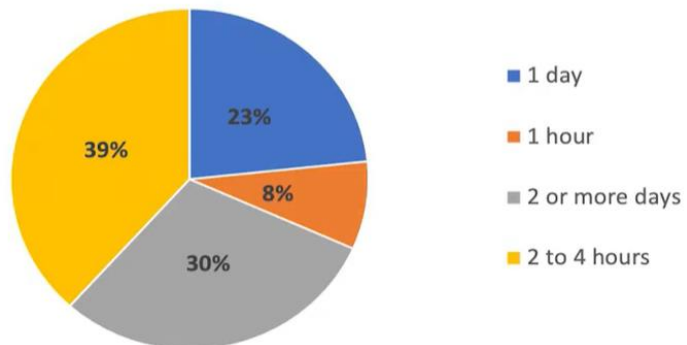# MRO IN PRODUCTION

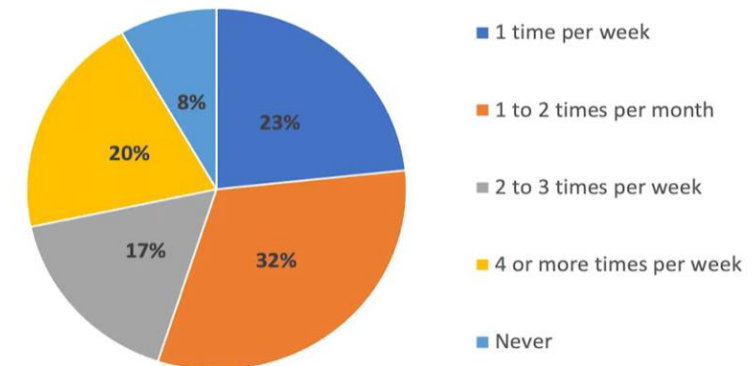## Opportunity: To enhance operational efficiency

- High cost of Maintenance, Repair and Operations

- Unplanned Downtime

- Parts Identification

- Inventory / Supply Chain Management

- Asset Management

Typical MRO Process

- Machine in Use
- Replacement Needed
- Identify Parts
- Contact Distributor
- Identify Interchange
- Receive Price and Availability
- Order Component
- Build
- Ship

How long does it take for you or your customer to replace a motor and gearbox from part identification to "up and running"?

- 23% — 1 day
- 8% — 1 hour
- 30% — 2 or more days
- 39% — 2 to 4 hours

How often does your facility or your customer's facility experience unplanned downtime?

- 23% — 1 time per week
- 32% — 1 to 2 times per month
- 17% — 2 to 3 times per week
- 20% — 4 or more times per week
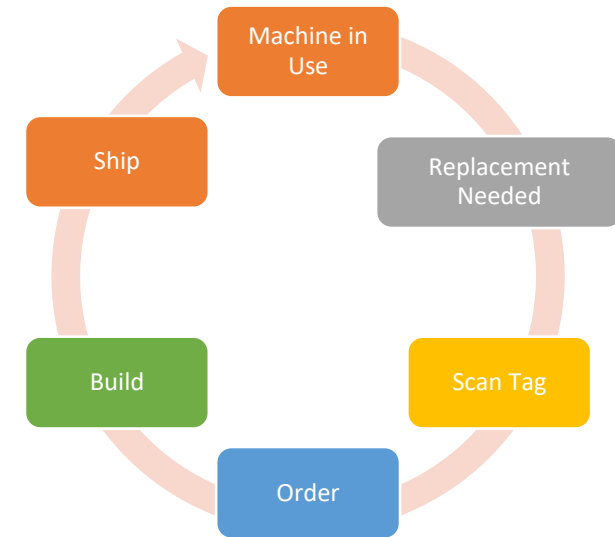- 8% — Never

MRO IN PRODUCTION

TAG

- Tag Equipment with QR codes
- App designed to capture product and location

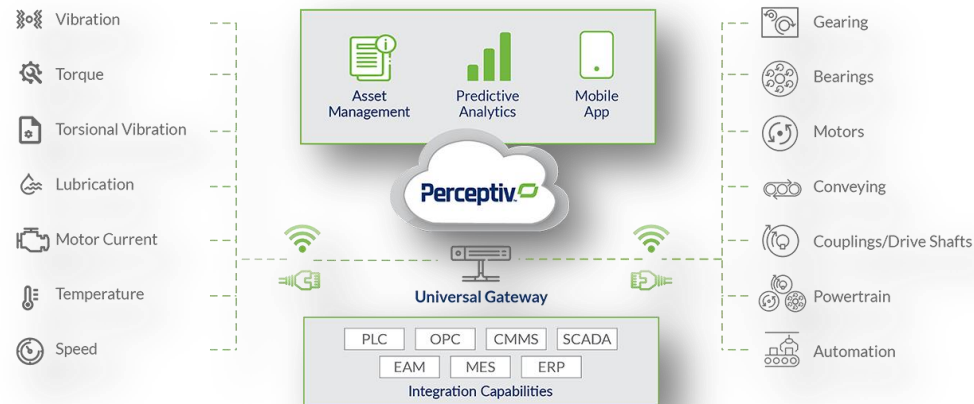### SCAN

- Part Identification, Product & Interchange Information
- Directs to website for purchase

MONITORING & INSIGHTS

- Provide asset Monitoring hardware
- Diagnostic & troubleshooting service

- Customer Visualizations, KPI's
- Asset Management tool

Machine in Use → Replacement Needed → Scan Tag → Order → Build → Ship → (Machine in Use)

Results at Metal Container

Cost Savings = Reduction of 1 hour is replacing equipment

Labor $25 + {revenue /hr ($30K) x instances (85) x hours for replacement (3) }

Net Savings = $2.5M annually

Reduced MRO time by 1 hr = 33% reduction in MRO lifecycle

CROSS FUNCTIONAL TEAMS

PIM (Product Information Management)

Central repository for managing product data, specifications, and part numbers

Accurate and consistent product information across systems

Provides alternate part recommendations based on part number, compatibility, and PMP logic

Cloud Database (Azure)

Stores product data obtained through QR code scans

Tracks part numbers and integrates with PIM for enriched product information

Supports remote monitoring of systems and alerts based on machine health

Facilitates product matching and alternative part selection

REST API (Hosted on Azure)

Facilitates communication between the mobile client and the backend

Secures data exchange via JWT (JSON Web Token) authentication

Enables seamless interaction with PIM for retrieving and updating product information

Mobile Client

Equipped with a QR code scanner for part identification

Sends QR code data to the REST API for processing

Fetches enriched product data from PIM for enhanced product insights

Displays alternate parts based on the scanned part number and PIM data

Price and Inventory Services

Offers real-time information on part availability and pricing

Integrates with PIM for accurate and up-to-date product data during procurement

Collaborative effort across multiple teams, domains and priorities

INFORMATION TECHNOLOGY   **SALES**   **PRODUCT MANAGEMENT**   **ENGINEERING**   **PRODUCT MARKETING**