



Condition Based Intelligent Maintenance – an Effective Way Forward

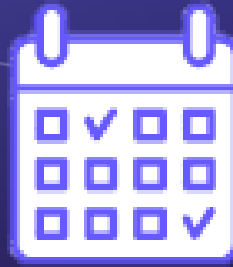


TRADITIONAL MAINTENANCE PRACTICES



Usage
Based

Not Cost Effective ??



Calendar
Based

Not Resources Efficient ??



Defined
Checklist

Over Maintain ??

Breakdowns ??

MODERN BUSINESS NEEDS FOR EFFECTIVE MAINTENANCE STRATEGY



**Safe
Practices**



**Alignment of
Business
Goals**



**Value Add
\$**



**Systematic
Strategic
Sustainable**

CONDITION MONITORING APPROACH

The Foundation to Predictive Maintenance & Cost Optimization



**Less
Invasive**



**Less
Disruptive**



**Less Resources
Better Inventory Control**



**Focused Use of
Resources**



TYPICAL CONDITION MONITORING



Thermography



Vibration | Ultrasonic | Temp

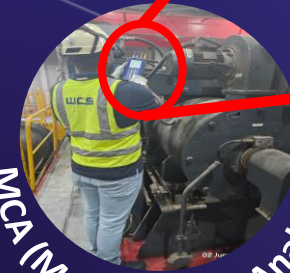


Wireless or Wired

Crack Propagation



MCA (Motor Current Analysis)



Resistance	OK
Stator	Bad
Rotor	OK
TUS	10025
Contamination	OK
Insulation	OK
BACK	
EXIT	

2 3 4

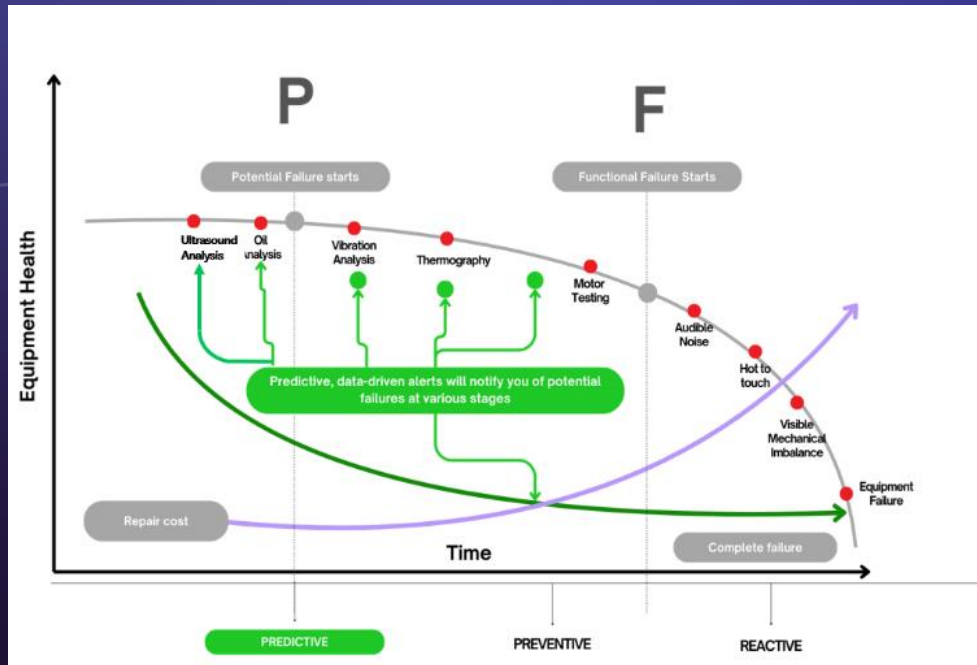
LL-TEST PRO 7™

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Oil Analysis / Pressure sensing



INTELLIGENT CONDITION MONITORING

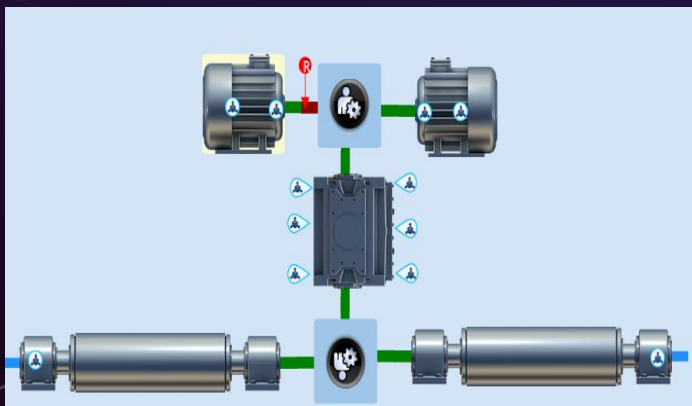


Early Fault Detection

Forecast & Predict Software

Cost Optimization/Focused Maintenance

Improved Reliability & Productivity



Vibscanner2 + Omnitrend

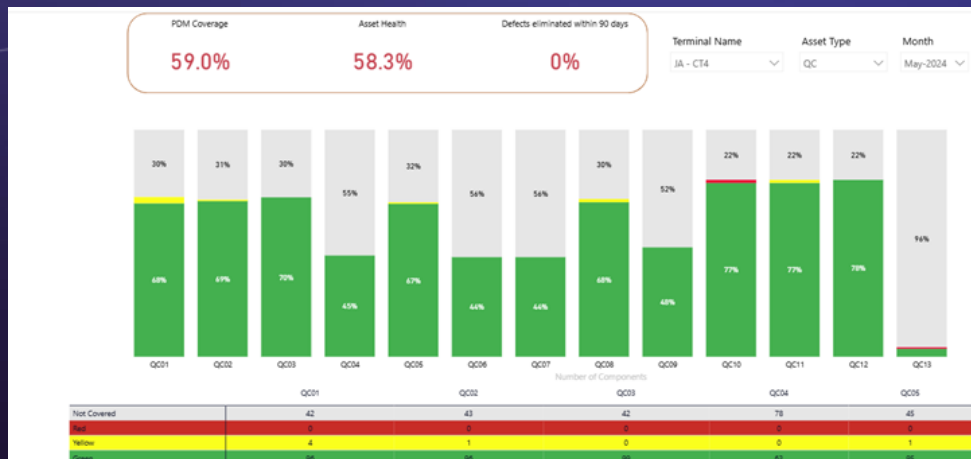
Extend Equipment Useful Lifespan

Know your Assets

CASE STUDIES

Case Study 1 – Asset Health Scoring & Improvement - 13 STS Cranes – Condition Monitoring Intervention

Asset Health – May '24



Early-stage defects in Gearboxes & Motors

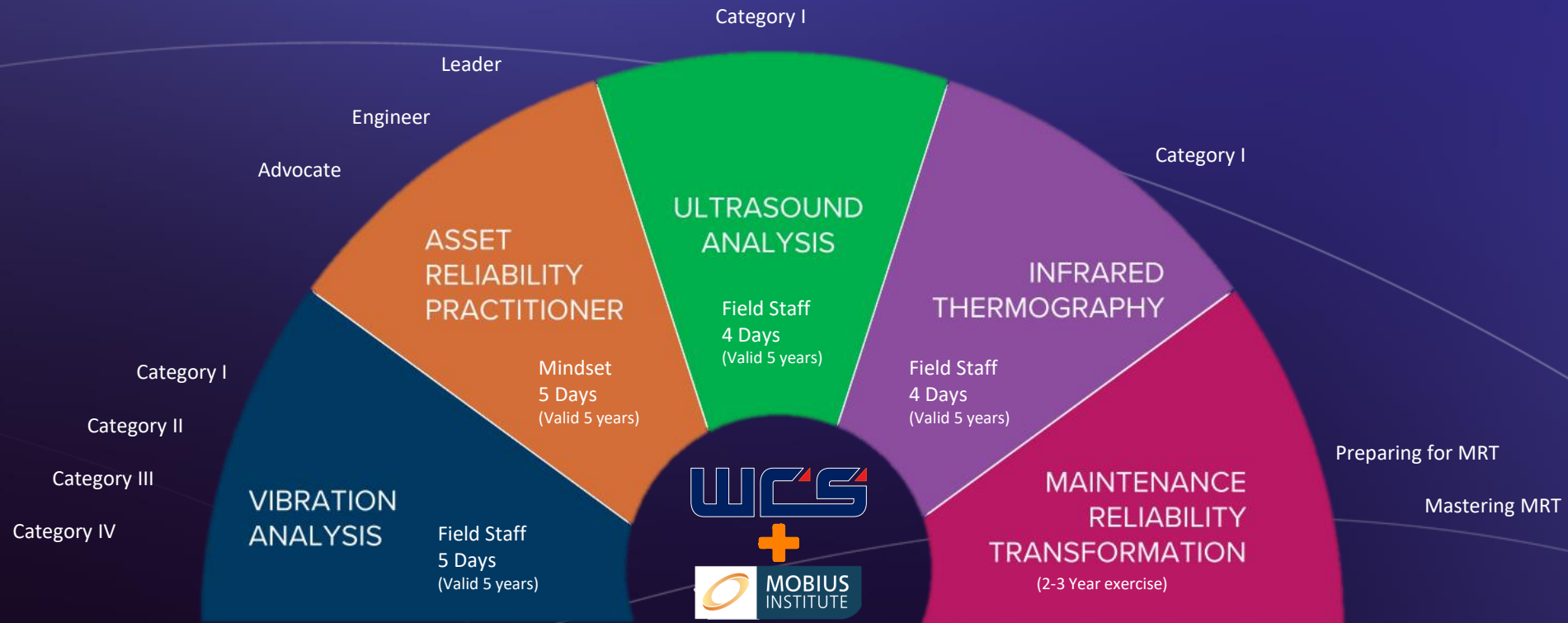
Asset Health – Dec '24



Considerable Improvement in 7 Months

TRAINING

A Systematic Approach



WAY FORWARD



Training Your Team & Install Monitoring Sensors

Predictive Analytics

Maintenance Dash Boards

Cyber Security, Encryption

Data Infrastructure / Wireless & Cloud Networks part of IT Strategy

Integration with CMMS

Integration with TOS

Ai Driven Maintenance

Vibration Analysis ISO 18436-2

Ultrasound Analysis ISO 18436-8

Thermography ISO 18436-7