



PREDICTIVE MAINTENANCE

Make your manufacturing unit a "Smart Factory" with almost no infrastructural investments.

AI monitors plant equipment and predicts failure

The concept of Industry 4.0 was coined almost a decade ago. Most manufacturing units, however, are speculative and cautious in its adoption. Invasive infrastructural changes, concerns over data security and the ensuing investments for retrofitting equipment with sensors are but a few challenges in the implementation of Industry 4.0.

While the complete transformation requires equipment in a smart factory to communicate with each other and be "Artificially Intelligent", there are a number of independent

interventions that employ AI and provide quantifiable benefits to manufacturers.

Predictive maintenance employs machine learning models. These models utilise existing, current and historical data to predict failures, equipment downtime and other key process statistics. Limited unplanned downtime, optimised equipment lifetime (owing to regular repair and maintenance), increased quality control in product line are but a few benefits to be leveraged from AI adoption in manufacturing.

Increased Productivity

AI-driven predictive maintenance interventions have yielded up to 70% decrease in breakdown events and 25% increase in productivity.

Improved Product Quality

Analytics can predict the efficiency of equipment and help forecast quality issues before they appear. Machine learning models can increase fault detection rates by 90%.

Significant Cost Savings

It is estimated that reduced maintenance costs (up to 40%), savings from lower equipment downtime will lead to an industry-wide savings of the range \$240-630 billion by 2025.

Customised Predictive Analytics Solutions



A steel plant, that specialises in manufacturing a range of pipes, determined that there was an opportunity to improve productivity by at least 15-20%. Quadratyx deployed a customised predictive maintenance system at this plant, that utilised existing and historical data, already captured at the plant. The array of machine learning models were able to identify unaccounted losses and yielded an increase in productivity that was over 3 times the expected value. Inherent issues with data collection methods were also rectified.

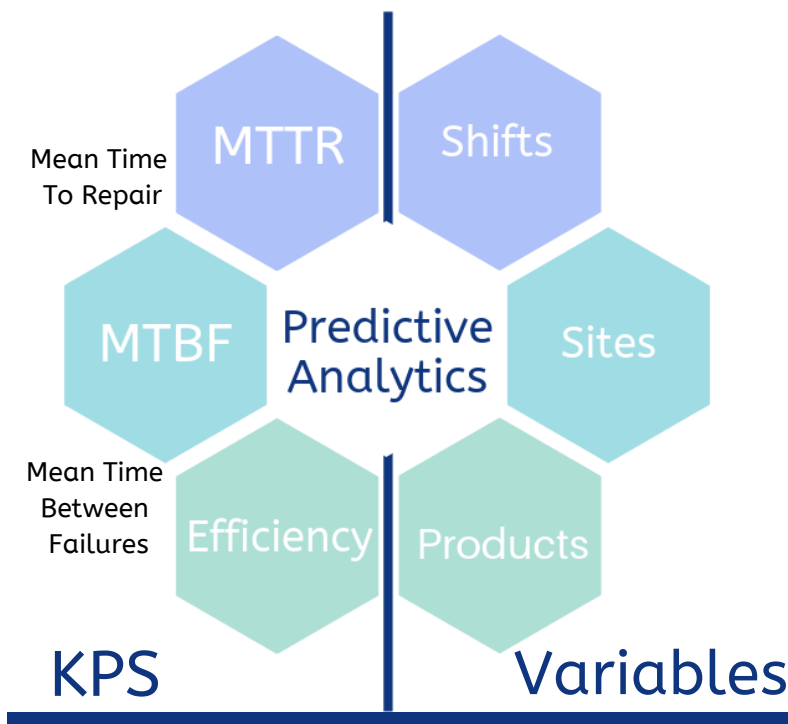
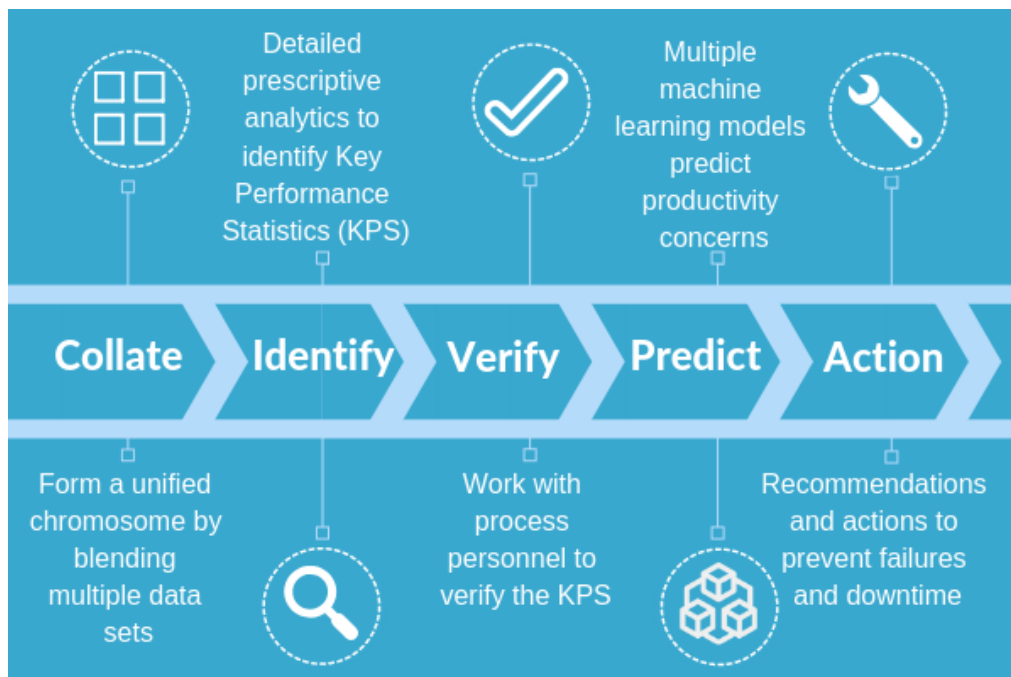
60-65%
Increase in
Productivity



260 Ton
Losses
Identified



A Step-wise Guide for Deploying a Predictive Analytics System



A customised solution that can work with your plant's specifications, that can determine KPS and variables that are unique to your manufacturing facility. Quadratyx has developed a customisable solutions that can utilise data in any format, even hand-written notes and utilise it to help you improve your plant efficiency.

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