Arrelic
Your Reliability Partner.

Achieve Plant Optimization Through

ASSET PERFORMANCE MANAGEMENT

Reliability Centered Maintenance

Preventive Maintenance Optimization

Defect Elimination

About Arrelic

Arrelic is a fast-growing deep technology firm aiming to bring the next level of IoT based sensor technology to transform the mode of manufacturing operation and maintenance practice of various industries with extensive expertise in Reliability Engineering, Predictive Maintenance, Industrial Internet of Things (IIoT) Sensors, Machine Learning and Artificial Intelligence.

We provide a single ecosystem for catering all industry needs from Consulting to IoT and Analytics as well as providing Training and Development courses for different stakeholders.

We aim to help manufacturing industries to improve their overall plant productivity, reliability and minimize total production cost by 25-30% by eliminating machine downtime, lightening management decisions by analysing the machine data with right mind and expertise for a worry free operation.

Mission

To be the best reliability partner of our client. To make our client's business more profitable and sustainable, we will deliver superior and exceptional results.

Vision

To be the most admired and creative organization that ameliorates various manufacturing industries by transforming their mode of operation and maintenance practice.

Key Questions for Asset Intensive Industry

Arrelic APM

What are the important assets based upon their functionality ?

What is the asset's current health & performance ?

Is it possible to optimize asset performance ?

What might be the reasons for asset failure ?

What will be the consequence of asset's failure on the business ?

Is it possible to mitigate the risk of asset failure ?

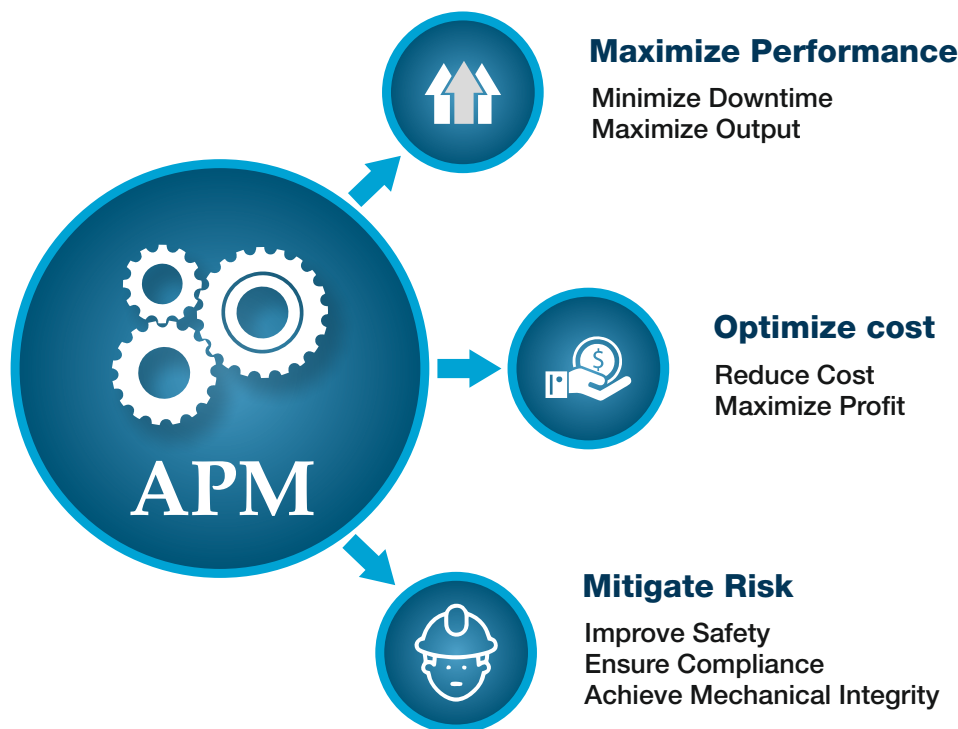What measures should be taken so as to prevent asset failure ?

In any typical asset intensive industry, operation & maintenance phase has significant contribution towards the total fixed cost of the organisation. Asset Performance Management (APM) comes into picture in this phase.

What is Asset Performance Management (APM)?

APM is a set of work methodologies focussed towards maximizing performance, optimizing operation & maintenance cost, and mitigating risk of the existing physical assets of an organisation.

An APM system ensures that an organization has the required processes, support system and human resources to make the asset's life cycle decision efficient, that will in turn optimize the value delivered from the asset.

Waiting for an equipment to break-down often causes longer and costlier delays that impacts the production schedule, output quality and safety. So, it is essential to monitor the current asset health to make timely and accurate decisions. APM helps to achieve the above and makes the business more sustainable.

APM

Maximize Performance

Minimize Downtime
Maximize Output

Optimize cost

Reduce Cost
Maximize Profit

Mitigate Risk

Improve Safety
Ensure Compliance
Achieve Mechanical Integrity

A typical Asset Lifecycle

Plan → Design → Procure → Build → Operate → Maintain → Rebuy

Industry Problems & our Solutions

Problems faced by O&M

Loss in productivity

Equipment failure at bottleneck process leads to complete shutdown of production process. Failure will lead to loss in productivity as machine downtime is increased.

High maintenance cost

Failure of equipments occurring even though PM tasks are performed regularly. Increased cost due to unwanted or incorrect PM tasks.

Inconsistent product quality

Due to defective equipment product quality gets even more inconsistent with passage of time.

Health and Safety issues

Complex machines can fail suddenly without any prior indication thereby causing fatal injury, this is referred as risk of failure.

Less or no data about assets

As very less or no data about assets is available it becomes difficult in taking life cycle decision about the asset. This leads to unscheduled maintenance, excess spare inventory and incorrect PM tasks.

Arrelic's Solution: APM

Increased productivity

Productivity is increased since equipment downtime is reduced and operational availability is increased.

Reduction in O&M cost

APM optimizes maintenance schedule, reduces spare part inventory and suggests best maintenance strategy leading to overall cost reduction. Also increases asset life thereby reducing investment cost.

Improved MTBF

Through increase in labour availability, trained workforce & optimized maintenance techniques , asset's MTBF is improved.

Improved SHE

Improved safety, reduced health and environmental risk. As failures are reduced factory premises become safe for employees. Increase in efficiency reduces environmental effect.

Asset data availability

Creates database for every asset regarding its failure modes, PM tasks, LCC, risk associated, maintenance cost etc.

APM Major & Minor Modules

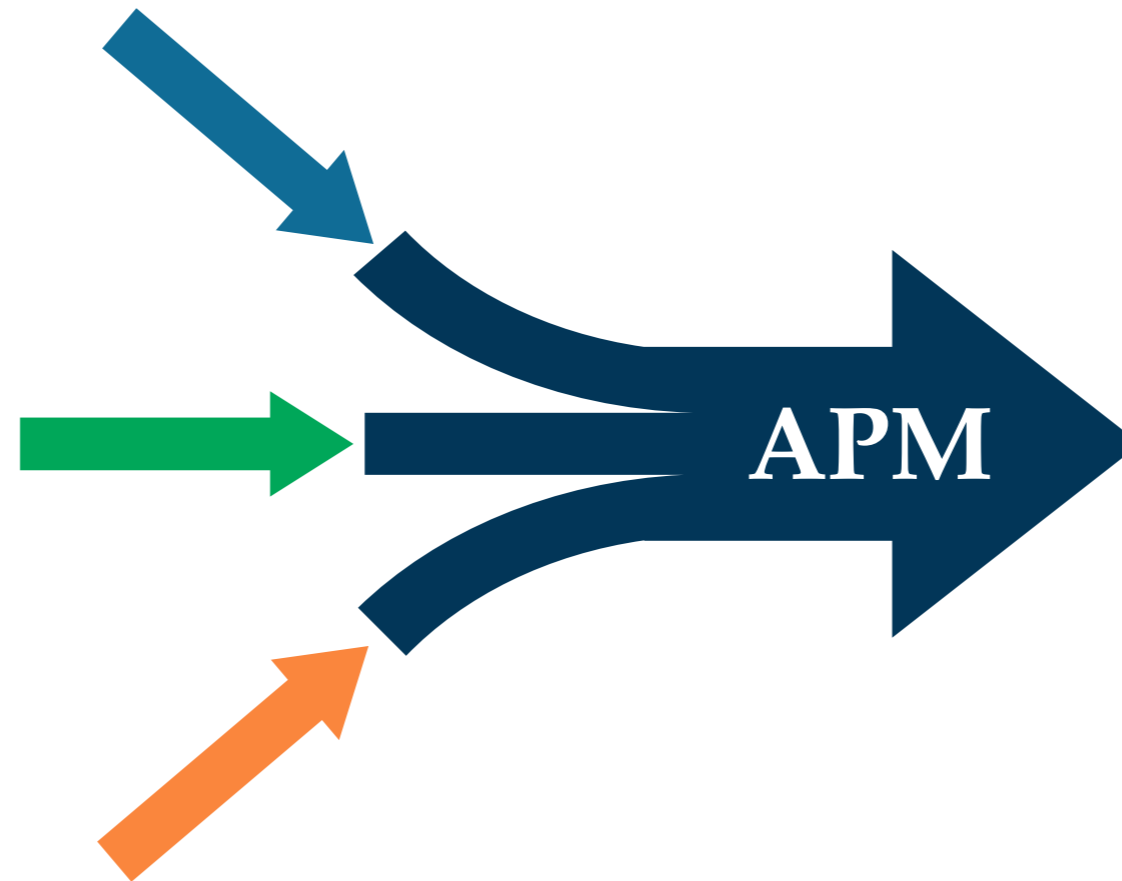## Reliability Centered Maintenance

RCM is used to develop maintenance strategy based upon the failure modes and risk associated with the failure.

Preventive Maintenance Optimization

It is an optimization technique between PM and RM strategy. Unwanted PM tasks are removed, so as to reduce maintenance cost.

Defect Elimination

DE is a tool that seeks to proactively identify product and process defects, allocate them a priority, and then identify and eliminate the root cause.

APM

Minor Modules

- Criticality Analysis & Ranking
- Failure Mode Effect & Analysis
- Run to Failure
- Opportunistic maintenance
- Spare parts management and optimization
- Risk Based Inspection
- Reliability modelling
- Reliability Maintainability & Availability
- Waste management maintenance

Impact of APM on Return On Assets
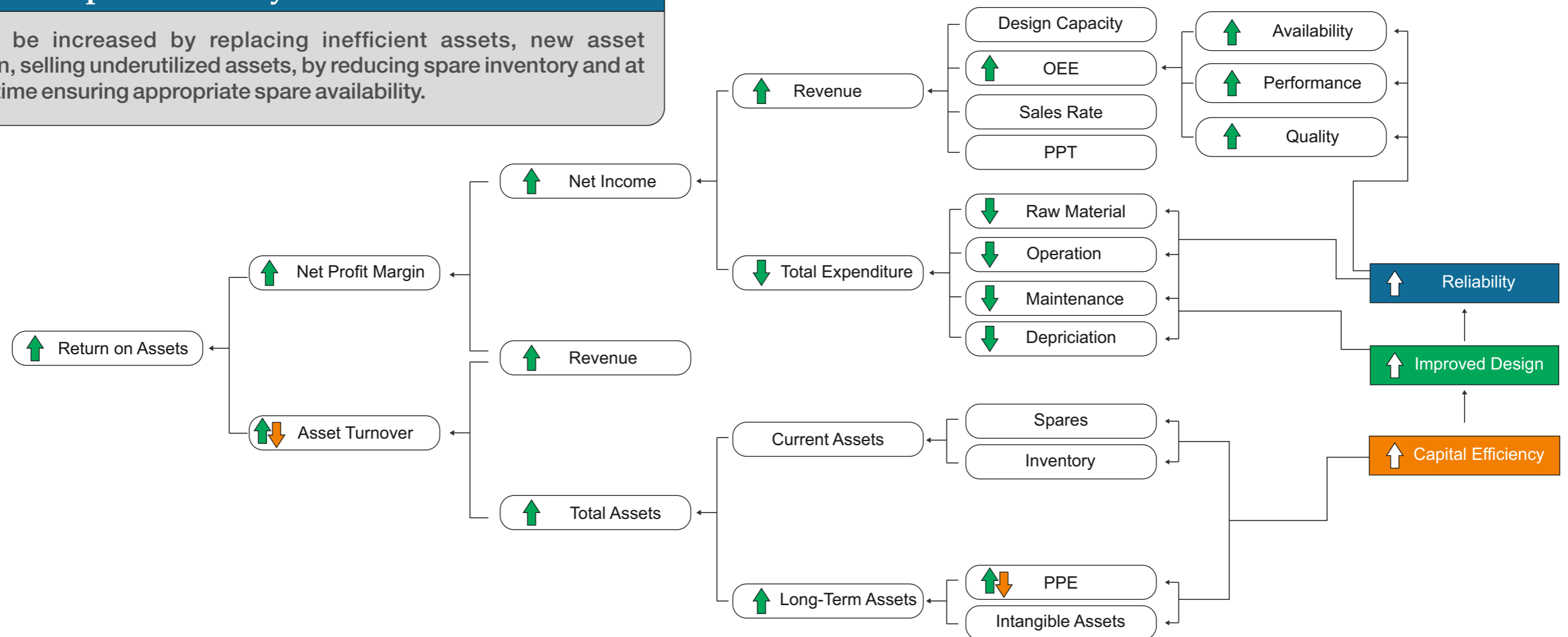
Improved Reliability

Improved asset reliability leads to fewer failures thereby increasing operational availability, improved performance and improved quality. These further leads to increase in revenue through increase in Overall Equipment Effectiveness (OEE).
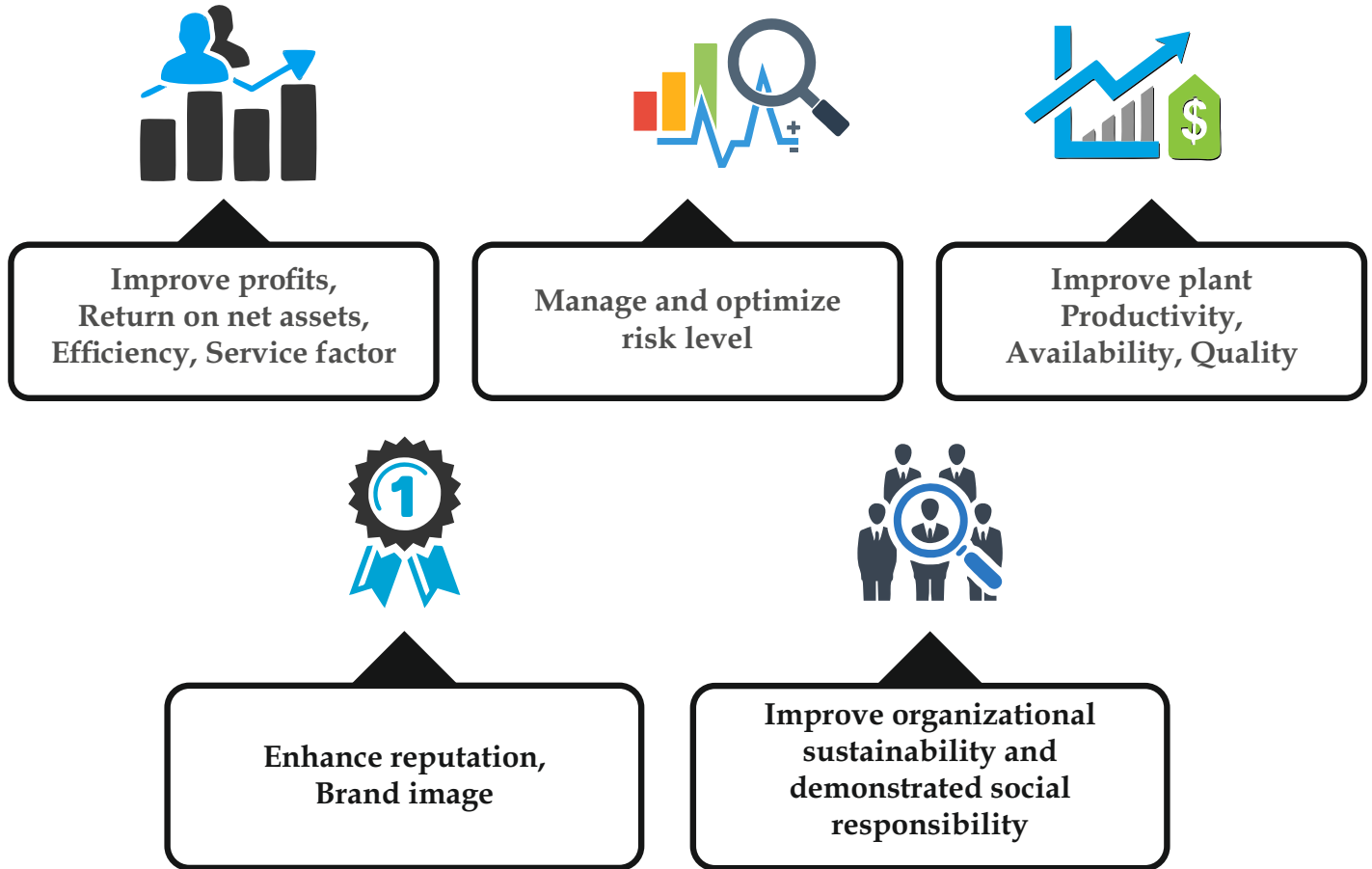
Improved Design

Improved design leads to lowered consumption of raw materials, fewer operational processes, reduced maintenance cost and depreciation. This leads to reduction in overall expenditure, which finally increase return on assets.

Improved Capital Efficieny

ROA can be increased by replacing inefficient assets, new asset acquisition, selling underutilized assets, by reducing spare inventory and at the same time ensuring appropriate spare availability.
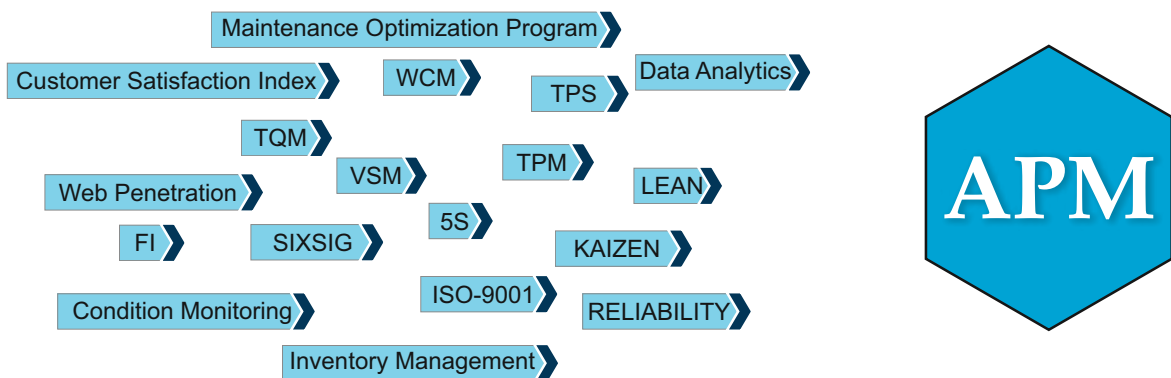
Improve profits, Return on net assets, Efficiency, Service factor

Manage and optimize risk level

Improve plant Productivity, Availability, Quality

Enhance reputation, Brand image

Improve organizational sustainability and demonstrated social responsibility

APM Integration With Other Processes

Asset Performance Management from Arrelic can be seamlessly integrated with any existing service at the plant to enhance the overall benefit of the ecosystem.

Maintenance Optimization Program

Customer Satisfaction Index

WCM

TPS

Data Analytics

TQM

VSM

TPM

Web Penetration

LEAN

5S

FI

SIXSIG

KAIZEN

Condition Monitoring

ISO-9001

RELIABILITY

Inventory Management

APM

Industry Expertise

Airlines	Automobiles	Cement
Chemical	Defence	Facility Management
FMCG	Glass Manufacturing	Marine
Metals	Mining	Oil & Gas
Pharmaceuticals	Power	Pulp & Paper

GETTING IN TOUCH

If you have any questions or would like further information on Asset Performance Management (APM) please feel free to contact us.

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INTERNET OF THINGS

ANALYTICS PLATFORM

PdMAAS - PREDICTIVE MAINTENANCE

CONSULTING SERVICES

TRAINING & DEVELOPMENT

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