Cpragma

Enterprise Asset Management in the Fuels Retail Industry

Identifying the capabilities for success in a challenging market



Introduction

Fuels retailers in South Africa are facing an increasingly complex and difficult operating environment. The rising localised cost of petrol and diesel and an increased consumer focus on energy efficiency continue to limit market growth. Competing in a price regulated market requires focus on convenience retail and other value offers to consumers, creating complexity in managing a variety of stakeholders and asset categories. In addition, a continued focus by the major oil companies on managing costs across the retail network and a volatile and uncertain licensing and regulatory environment add risk and intricacy to investing in and maintaining a complex network of assets.

To overcome these issues, fuels retailers need to develop a clear and efficient plan for managing their distributed assets that is focused on maintaining operational integrity and managing risk in a cost-efficient delivery model.

At Pragma, our extensive experience in helping our clients manage their distributed asset networks has helped us develop a set of tools, processes and best practices to balance performance, cost and risk – today and in the future.





Complex Questions

The compound annual growth rate for combined petrol and diesel sales for the last 10 years has been approximately 1%. The close link between economic growth, vehicle sales growth and the demand for liquid fuels also means that the market is not going to show significant organic growth in the short to medium term. This slow growth, combined with tight price regulation, means that fuels retailers are relying on convenience retail, fast food, loyalty partners and a more attractive buying experience to attract customers to their forecourt.

Adding to the complexity, new ownership and procurement regulations are forcing retail operators to critically evaluate every supplier and partner in their environment for compliance and support. In addition, most major oil companies are putting increased pressure on the retail business to limit capital expenditure and to contain operating costs in the face of a volatile commodity price.

As fuels retailers are coming to terms with the complex demands from various stakeholders, safety, health and environmental accountability remains a critical element in their licence to operate.

Balancing all these demands across a diverse, distributed asset network can be intimidating. Asset owners continue to struggle to balance increasing customer demands and forecourt asset complexity with increased cost pressures and HSSE accountability. Having a clear enterprise asset management vision and the right partnering and delivery strategies can help provide solutions.



Challenges

Managing a diverse, distributed asset base

The diversity of retail and convenience assets and the significant geographic dispersion of the retail network creates a variety of challenges. Maintaining the accuracy of the asset base, an accurate history of work and a consistent record of asset condition are all made harder by the number of assets and the distances between them.

Compliance with HSSE standards, maintaining compliance records and making sure any maintenance work is done in compliance with these standards takes significant effort and management focus. In addition, creating and implementing standards for work planning and control is made difficult because of the number and location of sites.

Selection, accreditation and management of a diverse group of maintenance contractors is complex, especially since the procurement, invoicing and payment processes must comply with corporate standards but are used by contractors in many locations, and with varying levels of accuracy.

Managing service requests from hundreds of retail sites and tracking progress and dealer communication is a complex effort, requiring accuracy and responsiveness.

Our experience in helping clients meet these challenges shows that creating a centralised single point of contact for asset and facilities management, enabled by world class process, tools and skills is an ideal way to manage performance, cost and risk across the asset base.

Controlling work, contractors, compliance and costs

Very few fuels retailers can maintain a national network of contractors to support the diverse range of maintenance work required. This requires the use of an accredited contractor network, including the complexity of finding, training, certifying and controlling the work. Setting – and monitoring compliance to – quality standards also becomes problematic.

Local BEE procurement regulations put obligations on corporates to select, develop and accredit suppliers from previously disadvantaged backgrounds, adding to the effort required in the contractor selection process. Centralised spares planning, procurement and logistics operations can help significantly to reduce costs and ensure predictability of cash flows in maintenance spending. Supplier development is a very powerful tool in the effort to stimulate

Challenges

the growth of small and medium businesses, but adds to the effort associated with training, administration, certification and quality assurance.

The final challenge is the administrative effort required to schedule and control work across a widely distributed asset base. This includes performing inspections and ensuring that invoicing and payment of contractors is done in accordance with Service Level Agreements.

Working in this industry has shown that a sound enterprise asset management strategy, supported by industrialised contact centre, planning and scheduling and contractor management capabilities can go a long way towards ensuring appropriate asset performance.

Managing the Whirlwind

Fuels retailers must develop the capabilities needed to manage the whirlwind of activity inherent in a complex network of assets. Experience has shown that this capability should be based on the engineering fundamentals of asset management and maintenance, and include the core capabilities shown in Figure 1.

Asset and Work Management lays the foundation for implementing and managing a solid asset management strategy. Capabilities in this area include the development of a comprehensive asset care plan, asset identification and verification, work planning and control, and spare parts administration.



Figure 1: Core Asset Management Capabilities for Fuels Retail

Standardising **Contact Centre Management** processes allow fuels retailers to centralise call handling and logging, data capturing, and outbound communication with contractors and other stakeholders. It creates a single point of contact with the maintenance function for site operators and contractors.

Implementing a **Resource Management** capability creates capacity to manage the administration around asset management operations. Functions will include procurement and contracting, contractor management, budget and financial management, and human resource management.

In our experience, **Project Management** capability is needed to execute the minor capital projects such as tank swaps or service unit replacement closely aligned with maintenance activities.

Given the distances between retail sites and the need for skilled resources to evaluate equipment and make technical decisions, a **Mobility and Cloud** capability allows the team to make information available at point of need for both supervisory and operations staff, reducing the need for and timing impact of travel to and from sites. This capability will help with the design and implementation of appropriate condition monitoring solutions.

Finally, developing **Data and Analytics** tools and processes will enable the reporting and compliance activities and will also allow the creation of advanced asset analytics models in areas such as asset degradation and predictive maintenance scheduling.

The Future for EAM for Fuels Retailers - The Connected Forecourt?

The Fourth Industrial Revolution (Industry 4.0) is set to have a major impact on the way the world works and lives. Ever increasing levels of connectivity for people and machines has enabled the rise of cloud computing, mobility and advanced analytics. These new technologies will enable new ways of analysing, planning and executing asset and facilities management processes. Fuels retailers can expect to see the impact of Industry 4.0 in the following areas:

- Smart Assets: The critical operating assets in the forecourt and the convenience store will be sensor enabled and connected to provide relevant, real time information about the condition of equipment and information about operating conditions. Pumps, HVAC systems, fridges and generators will all report their condition in real time, enabling early failure detection and accurate preventive maintenance.
- Connected Facilities: The cleanliness and condition of the retail site is a key contributor to customer attraction and retention. Sensor enabled equipment such as soap dispensers and air fresheners will ensure that on time replenishment is done, and reduce the overall cost of facility inspections. Simple touch screen polling devices will allow instant customer feedback at various points on the retail site, enhancing customer interaction and enabling quick issue detection.
- **Mobile Access:** Monitoring the performance of crucial equipment and performing statutory inspections is a time consuming and expensive, if necessary operational reality. Enabling the remote monitoring of plant performance and early failure warnings will allow site operators and oil companies to reduce the cost and improve the quality of the overall maintenance process. It will also allow oil companies to leverage scarce engineering skills much more effectively through remote failure assessments and preventive maintenance planning.
- Intelligent Operations: The wealth of information available in an always on, connected asset base will allow retailers to reduce operating costs in areas such as stock losses, energy consumption and theft. Technologies such as automatic tank gauging, voltage and current metering on large electrical equipment and temperature sensors on refrigeration units can be integrated into a flexible reporting environment. These and other sensors will allow operations teams to monitor wet stock levels, equipment availability and sudden variations in energy consumption to keep a close eye on the key drivers of operating costs. Monitoring the operations of point of sale terminals and other key convenience retail equipment will help avoid revenue and stock losses in a distributed asset environment.

Using the data from all these sensors and inputs from inventory and scheduling systems will allow advanced analytics models to help predict equipment failure, optimise spares procurement and increase the effectiveness of the logistics operations.

We believe that the application of these technologies will provide fuels retailers with the next wave of competitive advantage through the reduction of both operating costs and stock losses.



The Journey to Sustainable Enterprise Asset Management

The Pragma EAM Roadmap

To develop a Sustainable Asset Management Capability, fuels retailers need to move from a reactive, breakdown management state of operations to an environment where asset availability is predictable and controlled. At Pragma, we have developed an Enterprise Asset Management Roadmap that describes the approach, processes and best practices required to move clients to their desired state of maturity. The Roadmap is shown in Figure 2.



Figure 2: The Enterprise Asset Management Roadmap

It is clear that not all companies have different levels of maturity in the asset management environment. The complexity of the assets, the geographical dispersion of the plant, and the level of investment in process and technology will all be unique. Our experience has shown that all clients, regardless of their current level of maturity, will pass through three phases on their journey to sustainable enterprise asset management – we have called these phases Stabilise, Optimise and Sustain.

Many client journeys start in the Stabilise phase. The foundation of good asset management practice is created by data accuracy, solid planning and no-compromise compliance. In the first phase of our road map, we work with clients to improve the accuracy of their asset register, and then develop or refine processes for work planning and control, contractor management and spare parts optimisation. Developing asset management strategy and tactics and ensuring

The Journey to Sustainable Enterprise Asset Management

compliance with all relevant HSSE regulations enables all the fundamentals of maintenance management and stabilises a reactive maintenance environment.

Once the basic capabilities are in place, we move on to the Optimise phase. During this phase, asset management processes are optimised through streamlining of data flow, spare parts optimisation and the selective implementation of condition monitoring technology. Our engineering specialists will also work with clients to optimise maintenance plans for efficiency and cost, and address specific equipment performance related issues through focused improvement projects.

For more mature organisations, the most relevant actions are described in the Sustain phase. Here, the focus turns to asset lifecycle management, and the elements of financial compliance, risk management and organisational development required to establish a truly mature capability. Developing business partners and including elements of environmental management are also part of an advanced sustainable asset management capability.

Pragma clients can enter the road map at any point and progress to the level of maturity required to appropriately balance asset performance, cost and risk.

Benefits Delivered

Our service philosophy is based on delivering quantifiable business results to clients and business partners. Some of the benefits delivered by our teams to fuels retailers include:

- 80% downtime reduction on fuel pumps
- 86% reduction in downtime for refrigeration equipment
- 80% downtime reduction on HVAC systems
- 27% cost reduction on reactive maintenance work
- 38% reduction in contractor exposure hours
- 20% reduction in energy consumption on specific sites
- 23% reduction in total exposure hours for maintenance teams.

We can deliver these results because we combine the fundamentals of good engineering and asset management practice with execution discipline and a good understanding of the operational realities in the fuels retail industry.



Pragma Capabilities for Fuels Retailers

Pragma has developed a broad range of asset management, facilities management and condition monitoring skills that sets us apart in the industry. Our services and supporting tools are based on a solid technical foundation and have been developed and refined through more than 30 years of implementation experience – truly asset management engineered.

We offer a range of capabilities specifically developed for the South African fuels retail industry, including:

- Asset Management Improvement Planning
- Asset Care Centre Implementation customised for fuels retail
- Focused Improvement Project Design and Implementation
- Asset Strategy Development
- Asset Care Plan Development
- Project and Programme Management
- Specialised Technical Training
- Specialised Compliance Training
- Custom Condition Monitoring Design and Implementation
- Facilities Management Services
- Asset Health Monitoring and Reliability Services
- Data Analytics and Mobility Solution Implementation.

Our service offerings are supported by a range of world class software tools, proven business processes and other enablers. These include:

- Asset Management Maturity Assessment
- Pragma On Key© Enterprise Asset Management system
- Pragma Asset Care Pack© our packaged business process and deliverable tool set
- On Key Insights©.

Pragma Capabilities for Fuels Retailers

Contacts

To learn more about what we offer to fuels retailers in the asset management space, please contact:

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About Pragma

Established in 1990, Pragma is an engineering company that delivers enterprise asset management solutions to asset-intensive industries. A privately owned company, Pragma employs 450 employees all working to give clients total peace of mind.

We take pride in the software tools and management practices we have developed to help companies in the mining, manufacturing, local government, distributed facilities and original equipment manufacturing sectors perform at their peak while balancing asset performance, cost and risk.

Headquartered in South Africa, Pragma has a global footprint with regional offices in Europe and Mexico, while partnerships with various companies around the world allow us to take our services into many more territories. We are proud of achieving a Level 2 Broad-Based Black Economic Empowerment (B-BBEE) rating and qualifying as an Empowering Supplier in South Africa.