

Major global oil & gas producer improves speed, quality, and cost of maintenance builds for capital projects with OnePM®

EXECUTIVE SUMMARY

A super-major oil and gas producer's large capital-project [Capex] maintenance builds were:

- costing too much and taking too long using a traditional maintenance-build approach;
- resulting in poor-quality maintenance strategies;
- not utilizing current operational-failure data from the company's dozen worldwide regions; and
- not retaining intellectual property following maintenance builds to leverage data from one capital project to the next.

The client selected ARMS Reliability's OnePM®-powered Asset Strategy Management [ASM] approach to complete their capital-project maintenance builds moving forward.

This solution significantly simplified the process of completing maintenance builds – streamlining file and data management, substantially reducing the number of outside contractors necessary, halving the costs associated with capital-project maintenance builds, and dramatically improving the quality of the maintenance strategies developed and later passed along to operations.

The company is now 5-10x more efficient than it had been in building maintenance strategies, saving manpower, time, and ultimately, money. The client also has the ability to ensure data consistency and successful loads to SAP, all in an automated fashion. Additionally, the company can now retain their maintenance build intellectual property – easily comparing projects and regions, and leveraging improvements via deployment across all relevant assets and projects.

5-10x

More efficient in building maintenance strategies



Visibility of whole maintenance-build process and outputs in real-time



Retention of maintenance-build intellectual property – easily comparing projects and regions

THE PROBLEM

A super-major oil and gas producer's capital-project maintenance builds were costing too much and taking too long using a traditional maintenance-build approach, and the resulting maintenance strategies were of poor quality. The company was experiencing continual overspending, missed deadlines, and maintenance strategies that didn't deliver the performance and reliability the operations team needed from the asset base. The company needed to find a way to decrease expenditures and increase delivery speed, while completing the highest-quality capital projects in terms of maintenance and reliability.

The company needed:

- risk-justified equipment-reliability strategies based on the operating context of that region or country's assets that met the specified operational performance targets;
- equipment-reliability strategies to comply with regional regulatory requirements; and
- digital equipment-reliability strategies, to allow for improvement modifications based on available data.

Additionally, the company wasn't retaining intellectual property following maintenance builds – the contractors kept it – so the company couldn't leverage data from one capital project to the next. They were also plagued with inconsistent and poorly structured Master Data, due to the disconnected nature of the maintenance-build projects.

SOLUTIONS

The oil and gas producer chose ARMS Reliability and its OnePM®-powered Asset Strategy Management [ASM] approach to complete their capital-project maintenance builds moving forward. ARMS provided a technical solution that halved the costs associated with maintenance builds and significantly simplified the process of completing them.

The OnePM® approach provided a single environment in which to complete maintenance builds, streamlining file management and eliminating the need for unstructured applications like Excel. Team members no longer had to deal with the inefficiencies, errors, and confusion that inevitably arose around multiple files, versions, and file locations shared among multiple team members. OnePM® also substantially reduced the number of contractors necessary to complete maintenance builds, and created a full client-specific maintenance build library, leveraging their existing operations equipment-strategy library to offer operational context and to utilize their current best asset strategies. Additionally, ARMS provided technical-reliability-engineering support as necessary – at a dramatically lower rate than the previous contractor-heavy support model.

ARMS worked with the client to pilot its ASM approach on a large Capex production unit floating in the Gulf of Mexico. Based upon the initial project's positive results, OnePM® was ultimately rolled out to the client's whole capital-projects portfolio of 5-10 major projects running simultaneously around the globe.

Beginning with the company's equipment list and classes, Bill of Materials, and OEM manuals, ARMS Reliability used its OnePM® platform to give the company new and better ways to build and manage maintenance strategies:

Building with New Approach

- Create asset master data
- Determine criticality
- Deploy central strategy
- Incorporate region-wide variations
- Incorporate local variations for operating context
- Package tasks and generate preventive maintenance [PM] master data, using predefined auto-packaging rules
- Generate budgets, and labor and spares forecasts
- Load to SAP via formatted integration links

Digital maintenance strategies are dynamically applied to an asset structure, accounting for asset criticality, make and model, and duty. This process ensures consistent, quality-assured, compliant master data, ready for deployment to SAP. The process supports regional or local variations to accommodate different operational or environmental conditions, all while maintaining the connection to the digital strategy knowledge base.

Managing Strategies in Operations with New Approach

This new maintenance-build approach creates an improved link between delivering capital-project maintenance strategy and turning the assets over to regional operations to manage. Operations can now use the following process to keep asset strategies dynamic and continuously improving:

- Monitor dashboard of maintenance-strategy effectiveness
- Issues or incidents trigger and perform RCA or strategy review
- Workflow review and approval for recommended strategy changes to relevant stakeholders
- Update local, regional, and corporate strategies, as necessary
- Deploy all changes
- Update PM master data
- Load change to SAP and monitor performance

THE BENEFITS



Improved Efficiency

ARMS Reliability's approach provided the client with a way to ensure efficient, consistent maintenance builds, to integrate with SAP, and to centralize asset-strategy management. With its new tools, the company is now 5-10x more efficient than it had been in building maintenance strategies – saving the company manpower, time, and ultimately, money, through a much more reliable performance of its asset base.



Greater Quality

Using the OnePM®-powered ASM approach, the client now has the capacity to see their whole maintenance-build process, and to monitor the quality of maintenance strategies as they go. The new system makes it simple for the company to view and modify data throughout the maintenance build, using the built-in QA/QC checks, rather than waiting until the project is complete to audit the maintenance-build quality.



Easier Governance

The new ASM approach includes automated quality-assurance data checks and automated packaging for successful loads to SAP. These features help ensure maintenance-build and data consistency, multi-level progress reporting, and easy maintenance-strategy review and change approvals.



Intellectual Property

ARMS Reliability's work means the client can now hold onto their maintenance-build intellectual property – effortlessly leveraging improvements via deployment across all relevant assets and projects, and continuing improvement of their maintenance strategies over time – whilst linking the maintenance build to the performance requirements of the operations.



OnePM® supports the process of Asset Strategy Management to deliver the optimal balance of cost, risk and performance, continuously. Learn how.

DISCOVER ONEPM®



ARMS Reliability - Representative Vendor in Gartner
2018 Asset Performance Management Market Guide

NORTH / LATIN AMERICA
P: +1 512 795 5291

AUSTRALIA / ASIA / NEW ZEALAND
P: +61 3 5255 5357

EUROPE / MIDDLE EAST / AFRICA
P: +44 1344 747 476