EMX VISION

Dinakara Nagalla
chief executive officer
EmpowerMX

Soft Launch

Cloud-based aircraft maintenance software company EmpowerMX has announced the launch of EMX Vision, an AI-based module. CEO **Dinakara Nagalla** answers our questions about the new technology

Visit: **empowermx.com** for more information

What is EMX Vision and how does it utilise AI and predictive modelling to benefit MRO organisations?
EMX Vision is a revolutionary tool developed by EmpowerMX, designed to transform the maintenance, repair and overhaul (MRO) operations with the application of AI and predictive modelling. The driving force behind it is a robust machine learning base that utilises large volumes of both internal and external data.

By deploying this new module, EMX Vision draws from historical data, real-time task flows, milestones and OEM data to predict labour requirements, material probabilities, defects and turn-around time (TAT) with an impressive degree of precision. This data is then used to help MRO organisations, regardless of size, to plan and act more effectively.

This solution signifies a significant technological leap forward, as it provides a faster and more accurate way to not only estimate costs but to also optimise nearly every aspect of MRO operations. By offering the potential to reduce costs, increase efficiency and boost productivity, EMX Vision ensures that MRO organisations have the competitive edge they need to thrive in today's challenging marketplace.

Why do you think it is important that businesses have access to modern material management and procurement processes?
Access to modern material management and procurement processes is absolutely vital for MRO organisations. Given that materials represent a significant portion of an organisation's MRO costs, it's critically important to optimise material planning, procurement and storage.

Traditional labour-intensive practices for managing and tracking materials can often lead to mistakes, inefficiencies and high inventory carrying costs. In contrast, EMX Vision empowers MRO organisations with an AI-driven approach to material management. This includes forecasting material needs, planning procurement in alignment with need-by-dates and managing aspects such as storage locations and shipping.

By leveraging AI and machine learning, EMX Vision can predict material requirements based on work schedules and historical data, allowing for much more accurate and efficient planning and procurement. This minimises the chance of costly shortages or overstocks and ensures optimal inventory levels.

The end result is a dramatic reduction in inventory carrying costs, wasted materials and productivity losses, leading to enhanced operational efficiency and profitability. This makes modern material management and procurement systems an essential investment for any forward-thinking MRO organisation.

What advantages does EMX Vision offer MRO clients in terms of Request for Proposals (RFPs), Request for Quotations (RFQs) and Quoting processes?
EMX Vision acts as a powerful mechanism for MRO clients to secure a competitive advantage. Leveraging AI and machine learning, EMX Vision accurately forecasts a range of key operational dimensions far more advanced than traditional commercial analysis.

> **"Our AI-based recommendation engine will forecast requirements with precision, thereby removing exorbitant costs and inefficiencies"**

These include labour costs, material needs, defect probabilities and TATs, providing MRO clients with robust and precise estimations, thereby increasing the level of accuracy, ultimately leading to a greater success. In the end, organisations are better prepared to propose more precise and competitive quotes, thanks to the precision data provided by our systems.

In addition to front end predictions, EMX Vision aids MRO organisations in effectively allocating resources, contributing to more efficient cost management. By reducing estimation errors and facilitating enhanced resource allocation, EMX Vision boosts operational efficiency, magnifies competitiveness and enables MRO organisations to improve profitability while maintaining, or in many cases, reducing operational costs, ensuring that the contract that are won are also executed as effectively as possible.

What can you tell us about the additional AI-based impacts that EMX Vision plans to introduce in key areas of MRO operations?
EMX Vision's AI-based scope doesn't stop with planning and forecasting. The solution is geared to unleash further benefits through added use cases within MRO operations in the near future, such as additional data access with integrations and floor level support functions.

Upcoming advancements will impact material management, procurement and aligned processes, including tooling, ground support equipment and need-by-dates planning. Our AI-based recommendation engine will forecast requirements with precision, thereby removing exorbitant costs and inefficiencies related to inventory mismanagement, over-storage or lack of timely procurement.

Moreover, EMX Vision is working towards enhancing workforce distribution. By harnessing algorithmic staffing adjustment recommendations, skill-based crew building and task assignments, we aim to optimise workforce distribution and task assignments. This approach will likely lead to substantial increases in productivity and reductions in span times.

Also, we're looking towards introducing an intuitive interface for seamless access to mission-critical information. This expansion of AI-based impacts will further drive precision, efficiency and highly informed decision-making, leading to overall workflow enhancement in an industry that's ever-growing. ●

1. Accurate predictions will lead to reduced operational costs and greater efficiency
2. EmpowerMX software offers real-time monitoring
3. Workforce distribution can be better planned