PROVIDING THE JOURNEY TO WORLD-CLASS PERFORMANCE

Andrew Evans, chief executive officer at EAMS Group, explains why putting digital at the heart of your corporate strategy will ensure you don't just survive but you gain competitive advantage.

Delivering business value through traditional means has become less successful for many asset intensive organisations – disruption is the opportunity with the fourth industrial revolution upon us.

As asset-intensive industry companies strive to become world class many come up short in asset and safety management as ageing infrastructure and intelligent assets demand new ways of management, both of the asset and by the staff responsible for the asset throughout its lifecycle. The world's infrastructure is consistently facing increasing demands by customers, from increasing usage, improved service, reliability and safety. Yet more and more organisations are having to meet cost reduction targets and provide an increasingly expected world-class service across the entire asset lifecycle.

We are in the middle of a technology revolution – a fusion of technologies that is blurring the lines between the physical and the digital, which is leading to the transformation of the Enterprise Asset Management (EAM) space.

With the technology-driven 'fourth industrial revolution' upon us there is little doubt that the digital era is challenging the current industry and business models. New products, services and business models will disrupt the current industry norms. Technologies such as cloud computing, big data, machine learning/cognitive computing, robotic process automation and virtual and augmented reality support this.

However, these 'digital enablers' won't enable the disruption alone. They are only a part of the complex rearrangement in the digital age. In the EAM space – the foundations of engineering, asset management and technology come together with an acceptable level of transformation of the organisation which to work must be in harmony. Technology for its sake alone without the target competitive advantage will only come up short. There has already been a shift from simple digitisation to innovation based upon combinations of technologies that ask the organisation to re-examine how it does business.

This is more than just technology and data, it is about people, process and organisational culture. For the business transformation to deliver world-class results, this has to be led from the very top of an enterprise where its competitive advantage is understood and invested in.

Advancing technologies are impacting all stages of how an asset is designed and built, maintained and operated. Current technology developments are increasing the opportunities for integration, interconnection and intelligence across the whole lifecycle, including links between design and EAM tools, allowing improved options based on whole-life performance; and cost modelling 2D, 3D and Visualisation technologies exploiting "as built" models, enabling a richer, safer, immersive augmented reality experience for asset maintainers and operators.

Trends include the mass sensoring of assets, delivering a wealth of real-time data about asset condition and performance. Wearables, providing real-time monitoring of workforce and early warning of health and welfare issues. Machine-to-machine and nanoscale communication, allowing assets and components to interact and respond to real world events. Machine learning, applied across the lifecycle to automate analysis and enable predictive and cognitive maintenance. Drone/operational service vehicle-based visual condition capture using AI and machine learning to spot issues.

Digital EAM is the foundational element required to maximise ROI by applying technology across the entire asset lifecycle. It provides the essential structure of the asset hierarchies and systems which enable integration of the information and datasets which would otherwise be siloed and provide minimal value. Enabling technologies bring efficiency and effectiveness to all elements of the lifecycle – but only when coupled to EAM, which will provide the core, controlled processes, workflows, detailed validation and proactive compliance which are required to exploit value systematically.

With this interconnected base framework, organisations can drive continuous improvements – leveraging new technologies and niche solutions quickly into their ecosystem to optimise whole-life cycle costs. However, very careful design of integration technologies, data storage platforms, security protocols, real-time business logic rules engines and asset information models is needed to ensure that scarce time and resource can be directed where they will have most impact and automate the response to real-world events.

Customer expectations through a personalised experience is the new reality, including expectations of real-time accurate information about their service with high-quality explanations for all issues. Consumers expect their service providers to take advantage of emerging technologies to reduce disruption, improve safety and service quality and reduce costs.

At EAMS Group we work closely with our clients to embark on their digital transformation, enabling them to achieve unparalleled success and their digital enterprise. We help develop an understanding of where opportunities are and how the digital enablers can be harnessed in a structured effective and efficient way to support them meeting and exceeding their strategic objectives, to enhance the customer experience and monetise new business opportunities.

Collaborating with an ecosystem of organisations in the digital EAM space globally, EAMS Group is working at the forefront of delivering sustainability through new technologies, engineering and asset management.

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