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Euan Macalister is Digital Sales Director at Sword UK with 20+ years' experience in the Technology and Energy industries. Euan has worked across the world with various operating companies, getting to grips with their challenges and recommending innovative solutions. At Sword, he focuses on helping Energy organisations to solve their toughest data challenges.



TAILORING TECHNOLOGY WITH DATA DRIVEN SOLUTIONS

Can technology investment be a golden ticket?

Accessing real-time, reliable data to inform decision making is at the heart of many of the Energy sector's technology investments. Addressing internal and external challenges often boils down to a focus on using technology to reduce costs, reduce health and safety risks, increase throughput, and fast-track the journey to net zero.

Many also face common internal challenges that come with growth. Inheriting ageing infrastructure to acquiring different systems, of various ages, that span multiple sites, assets, and locations. Pressure on ensuring data is configured for integration with internal and external systems is also increasing, as regulatory guidance requires industry collaboration and modernisation.

As new technologies enable the digitalisation of legacy information and modernise current data collection methods, Energy organisations are being offered a myriad of solutions on how best to integrate engineering and operational data.

Technology may appear to offer the golden ticket to enabling data driven decisions. However, to keep pace with the competition and unlock efficiencies in business processes, it can be costly. A great piece of tech may not be the best fit for the environment or challenges in your organisation. Equally, if implementation is not executed effectively, then capital investment can feel wasted if a new technology is underutilised and not delivering the cost savings anticipated.

Intelligent solutions

We now see organisations focusing on becoming data driven to better access engineering information. They are also exploring intelligent solutions to turn their data into a powerful, trusted, and valuable

asset. This is only valuable if the data has been through a process of rationalisation and standardisation to ensure it can be readily accessed and is trusted.

Each organisation's growth journey and operating environment brings a unique set of challenges. There are however a number of common denominators across our Energy sector such as the desire to enable data driven decisions by replacing localised solutions with cloud-based central solutions and the need to replace aging systems across multiple areas; and connecting disparate data from multiple sources.

Build or buy?

The industry often wrestles with the decision to build or buy software. The answer is really both, and a hybrid approach is often the best option. Organisations such as Microsoft enable access to reliable cloud-based tools that can be used to create bespoke solutions that accelerate an organisation's digital maturity and take advantage of advances in technology around existing embedded processes.

We often work with customers using a 'low-code' software development approach, which aims to optimise the development process to accelerate delivery. Some of our most significant digital transformation projects have utilised Microsoft's development solution, Power Platform.

Sword recently worked with an Oil and Gas operator's offshore teams to replace multiple systems for data entry and paper-based processes. Cumbersome, legacy applications were superseded by easy-to-use, mobile-friendly applications for the likes of instrument reading, observations, and maintenance planning. The results included greatly improved efficiency and enhanced system integration, both offshore and onshore and all on a single enterprise platform.

Unlock the power of data

We are regularly asked to help overcome frustrations with technology underperforming in line with expectations. It is often the case that the technology is not the cause of the frustration, it's the data that the technology is accessing.

Combining our experience in data and applications over the years, has driven our ability to build an industry recognised Master Data Model (MDM) which has been designed 'by engineers for engineers.' In digital engineering the MDM acts as a single source of truth and the foundational building block data sits on when exploring digital twin solutions.

Our MDM and software modules have been used to help deliver multiple global projects and validated across 30 countries and with the involvement of operators and EPCs for greenfield and brownfield initiatives.

Digitising legacy information

We avoid the 'garbage in, garbage out' trap by ensuring the right data is collected, structured and accessible to make informed business decisions. We develop bespoke applications to integrate with all aspects of a business when off-the-shelf software solutions don't quite fix a customer's precise problem, from legacy issues bringing unwelcome risk into operations, to inefficient processes making everyday tasks complicated or prone to human error.

Enabling a Data Driven future

Investing in tailored, solid technology systems that are fit-for-purpose is proving to be the key for many Energy industry organisations in building data driven foundations. Insights and analytics from these reliable systems enable informed data driven decisions to be made on everything from recruitment investment to pinpoint precise drilling locations. Enabling our customers to rely on their data as a single source of truth is the cornerstone to building strong data foundations. ▴

Addressing challenges often boils down to focus on using technology to fast-track the journey to net zero

About Sword: As the North Sea's largest provider of Data and Digital services, Sword focuses on solving the industry's most critical business challenges by enabling our clients to capture, manage and utilise data to make informed decisions. This is supported by technology adoption and people engagement, together with modern ways of working to give confidence that the right decision is made every time

For more information, visit www.sword-group.com

