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Our CTO for Data, Mike Stewart has been Stewart involved with Energy data and Information Management for more than 17 years and how helps customers leverage Sword's full data capability across sectors and disciplines.



Mike Stewart  
CTO for Data

## A RENEWED FOCUS

The Northeast commute to Aberdeen from any direction is dominated by on and offshore wind turbines. The horizon is a literal sign of the times as investment shifts away from traditional energies towards renewables.

The rig count and boat traffic may be increasing in the local ports and harbours, but the majority are in service of the rapid expansion of the offshore wind infrastructure, with turbine blades rather than drill pipe adorning the heavy haulage on our roads.

As the renewable industry grows rapidly, how will Scotland meet the demand for digital platform and data skills in green energy, particularly when traditional oil & gas markets are drawing on the same talent pool?

Sword's footprint in the renewable sector continues to expand in 2023, likely doubling in 2024. With this growth we will support new market entrants, green energy pioneers and large energy organisations to build scalable digital platforms and derive more value from their data assets. Among this growth, we have seen a spike in demand for expertise in platform and network security as company's invest in becoming more cyber resilient, reducing their vulnerability to external threats. Additionally, our data teams have brought in graduate and junior career talent to meet the needs for data engineering, data science and analytics to drive better decision making.

### What's driving the skill demand?

Our renewables customers often face geographic challenges with their assets and infrastructure more widely dispersed than typical oil and gas operators, normally in challenging areas on the far North and West of the UK. Wind, solar and geothermal are onsite intensive operations, and despite technological advancements in monitoring and maintenance, require a skilled workforce ready to work in challenging environments.

Talent with previous Capital Project experience is a common ask in renewables, and the North Sea oil and gas legacy has a huge amount to offer here. With this we have seen an increase in requirements for data and information management expertise to help control, manage and maintain information workflows, as companies rapidly design and bring online new infrastructure. Software, practices, and roles proven to add-value in oil and gas are replicated in the renewable sector and are drawing on a limited talent pool. We, as an organisation, are playing our part through supporting graduate talent from local UK and Scottish universities, but a shift of capability and capacity from traditional energy markets will take time. The shortfall will

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need to come from training and development, technology advances, efficiency gains and collaboration within the supply chains.

The growing emphasis on real-time operations in the renewable sector poses a big talent challenge. Traditional energy companies are investing heavily in real-time operations and maintenance, there isn't the same legacy of talent and skills as in other disciplines. Developing tailored talent takes time, so in the meantime it's up to us, in the service supply chain to come up with the shortfall. These capabilities have been successfully outsourced or offshore, but that relies on consistent process and quality management, not to mention the challenge of increasing costs and attrition rates in lower-cost centre geographies.

On top of these challenges, Cyber resilience continues to concern organisations throughout the energy industry, it's no longer if an attack will come, but when and how a company have measures in place to protect its critical infrastructure and data. Renewable and utility companies have the additional pressure of maintaining real-time electrical supply to the grid and protecting customer's private and financial data. There's been a correlated increase in investment in OT and Cyber skills – both training and awareness, strategic consultancy to devise policy and governance, and operational support roles to fast-track security operations programmes to minimise vulnerability.

As the renewable sector scales and matures, it must determine whether to buy or build the system and app capability it needs to fully realise the value of its data. We are seeing growth spike in demand for Scaled Agile, DevOps, Product Development, and technologies like FME and PowerPlatform as customers increasingly leverage cloud-based technology, GIS, and low-code app building to reduce waste within workflows and provide self-service data portals.

### What role does Sword play?

Sword has a dual role in the Energy Transition; to support its traditional energy customers diversify beyond Oil & Gas, and to help develop relevant platform and data talent.

The good news is that lots of the capability, experience and skills that exist in traditional energy disciplines are transferable. The demand for modern digital skills, PowerPlatform for example, is the same no matter which sector we're servicing. The need to innovate, to code, and do more with less and to automate manual process, is as relevant in renewables as anywhere else. The requirement for trusted data, to drive decision making, is top of most digital maturity league tables.

Sword continues to develop a talent pool with relevant skills to meet the demands of renewables and the wider energy market. In some areas, we need to re-skill and train our workforce, but retain the energy domain knowledge that sets us apart.

We have acquired in key disciplines and will continue to do so, collaborating with key strategic partners to bring capability to customers in expanding regions like the Middle East. ▲

**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  
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