Developing international business in a maturing renewables industry

As demands of the sector change and grow, the challenges that face the offshore industry also mount and the requirement for higher volume capacity cable laying vessels is increasing. PES was fascinated to hear from MAATS Tech about how it has evolved and is now looking to meet these latest requirements.

Since its inception in 1989, MAATS Tech has enjoyed excellent relationships with a variety of clients, both in the UK and overseas.

The company originated as a team of engineers, who not only offered first-hand offshore experience, but also had a strong background in the management of design and build projects of specialised vessels for offshore support services.

Starting life as a small consultancy under the name Maritime Audit and Technical Services, the company offered support and the supply of supervisory and inspection teams for new building O/S Support Vessels and bespoke conversions. Later partnering with DMEC Ltd, the development of the company gained significant traction as the then contractual staff were brought in-house and a physical office was established in Gloucester, where the head office is still based today.

The company grew exponentially, with a series of acquisitions and collaborations. With an increasing skills base and the demand from the industry for conversion engineering and interface design for bespoke equipment for flex lay operation, the Naval Architecture department was set up to handle vessel conversions and shipyard superintendence. Large projects such as the conversion and lengthening of the Seaway Condor in 1998 highlighted the company as skilful and imaginative design engineers.

In 2010, MAATS Tech Ltd was born, an amalgamation of Maritime Audit and Technical Services into a one stop shop for engineering, naval architecture, and analysis. Large, multi-vessel projects were the norm, with the installation of carousels and lay equipment to serve the booming oil demand in the 2000s.

In its infancy, the company worked mainly to produce lay solutions for the oil and gas industry. The requirements for each vessel tend to differ, so the company frequently works with vessel designers, in particular with new builds, to produce the optimum lay spread to compliment the clients' operational requirements.

Trust in the designs and enduring industry relationships resulted in 2010 an order of pipe lay systems for five new build PLSVs, starting with the Seven Waves and followed by three sister ships built at Royal IHC in The Netherlands, Seven Rio, Sun and Cruzeiro and in 2017, at HHI in South Korea, the Seven Arctic. All four ships built in Europe were fitted with 2500t and 1500t below deck carousels and 2x 30Te Load Out Tensioners and are operating off Brazil today. The Seven Arctic is fitted out with a 7000te carousel system and is currently working in Norwegian waters, sentiment to the trusted and experienced nature of MAATS Tech engineering provision.

One of the first vessels the engineering consultancy worked on for Subsea 7 was the Seven Condor, formerly Seaway Condor, in 1998, on which they supplied a triple lay spread for the Brazilian market. The triple lay system is once again gaining popularity for the resurgent Brazilian market and with a wealth of experience and a significant portfolio, MAATS is the supplier of choice for such systems.

Demands of the industry are growing and changing with remarkable momentum. Although the oil and gas industry is essential to subsidise the development of the renewables industry, the aim for a cleaner, more sustainable future lies in the continued demand and reliance on green energy solutions. Because of this, the company recognised the potential of diversifying the utilisation of the standard equipment supply to accommodate cable and fibre optic products.

The influx of work continued, but over the past five years the changes in demand have thrown into sharp relief the challenges that face the offshore industry. The oil and gas sector took a massive hit and prices plummeted, drilling stopped and hundreds of project specific vessels were laid off or scrapped as a result. The industry looked bleak. However, this left an open path for the renewable energy market to take centre stage. The global installed offshore wind capacity is estimated to increase by approximately 175% by 2050, bringing not only a clean dependable source of energy but a new angle for offshore support vessels to diversify into.

Managing Director, Lisa Edwards, notes: 'Our offshore experience has helped us

support the cable laying operators as this sector grows and develops. In particular in deep water areas, not only from understanding the many different ways each of them operates, but also in designing equipment that is more versatile to the new types of products being developed.'

One of the initial cable projects saw MAATS Tech manage the design, fabrication, delivery, installation and commissioning of the highly technical cable lay mission equipment to DNV certification on the NKT Victoria. The specialist kit included two four-track 45-tonne tensioners, a 7000te on deck carousel, a 4500te underdeck carousel, loading arms, three three-tonne tensioners, chute assemblies and roller pathways, enabling the vessel to load or unload three products at synchronised speed.

The project was carried out by a team of highly skilled and experienced professional engineers, working closely from the offset with NKT, Salt Ship Design and Kleven Shipyard to design, develop and supply bespoke equipment to meet the specific project requirements.

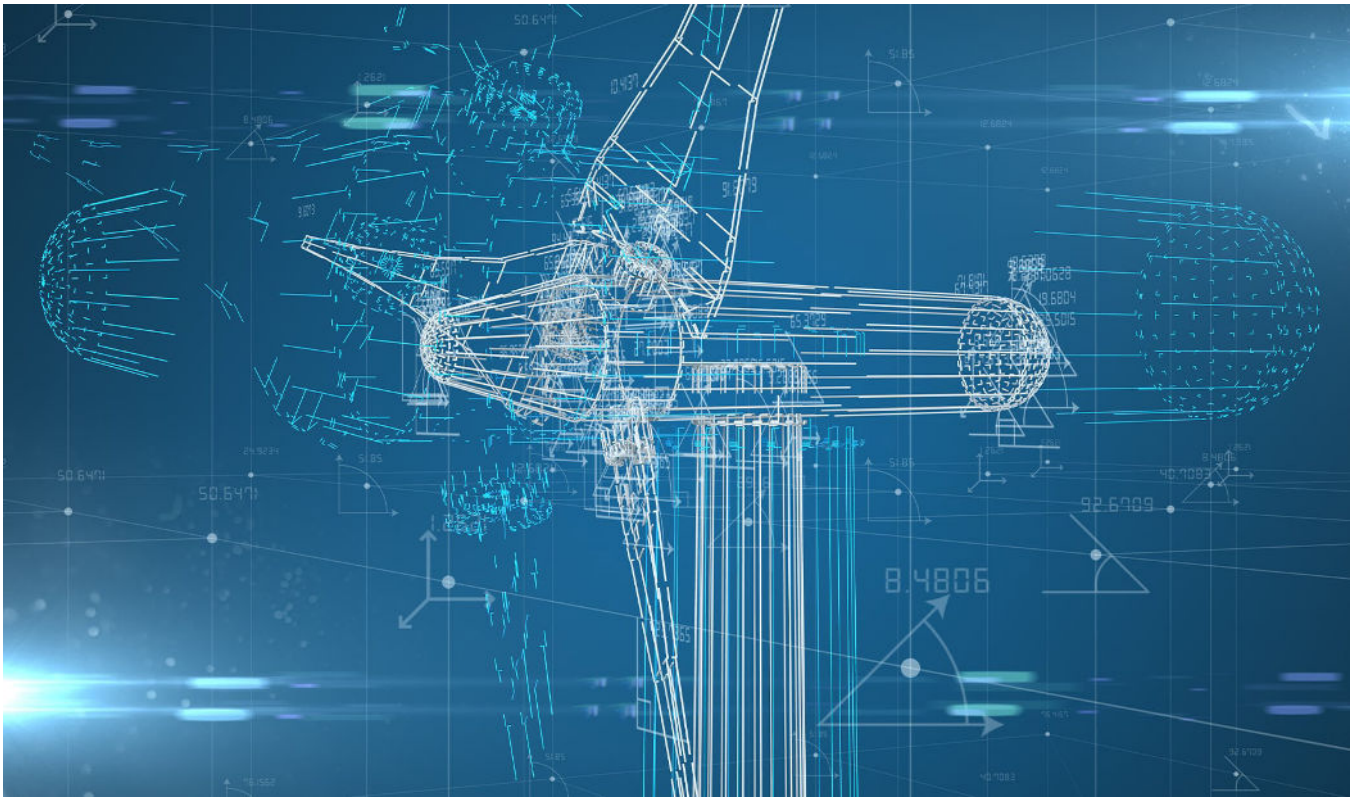
Always primed for innovation, the company went on to collaborate with Nexans on the development of the next state of the art vessel, Nexans Aurora. MAATS worked closely with the vessel design team Skipsteknisk AS and Nexans to develop a vessel which would incorporate a 10,000Te concentric carousel. This enables the vessel to complete complex construction tasks in severe weather conditions and be able to

process two products simultaneously, or a single length of product up to 10,000Te. This minimises offshore jointing requirements which is a significant advantage, technically and commercially. The company was responsible for the design of the full lay spread for the vessel, including a 75Te capstan to compliment the five tensioners of varying capacities, as well as stern mounted lay wheels and two carousel mounted spooling arms.

Nexans chose the ground-breaking concentric carousel design, as it best suited the deep water lay operations of the vessel and enabled advanced lay capabilities.

MAATS continues to invest heavily in research and development to advance its knowledge and skills as changes in the way energy is harnessed across the sectors continues to evolve. Being involved with ground-breaking projects with companies such as Nexans is testament to the innovation and quality processes that the company prides itself on.

As the company receives increasing numbers of enquiries for cable lay



equipment, geographical peaks in activity where countries are pushing their green regime to notable effect become apparent.

Business development director, Gavin Rippe, who steers business growth, notes the obvious diversity of high activity areas of industry. 'MAATS has seen significant interest from Asian customers interested in self-sourcing their offshore wind farm installation capability, instead of contracting European construction assets. There has already been significant investment from Taiwan, with Japan, Korea and Australia expected to follow suit in the near future. The USA has also experienced significant investment in cable manufacturing facilities, and Jones Act compliant construction asset investments are expected to increase over the coming years.'

Alongside the cable lay requirements for offshore wind farms is the requirement for the energy transfer from solar farms across great distances between countries. Such a project is the XLinks Morocco, UK Power Project. This will require 3,800Km of HVDC subsea cables to connect and transfer this energy which will be capable of supplying up to eight per cent of the UK's electricity.

The requirement for higher volume capacity cable laying vessels is increasing and MAATS Techs' experience in the provision of reliable high quality equipment, designed to specific requirements means the company is perfectly positioned to provide turnkey solutions for this industry. It works with clients from the initial development stages of a project, often providing high-level front-end engineering design studies to work out the optimum design that can help better determine the technical solution to allow for a more successful approach at project start.

MAATS Tech continues to seek out growing pockets of activity around the world, to offer the collective expertise of the company and to ensure that they stay a truly global supplier.

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