



## Digital twin solution to transform offshore wind management

James Fisher Asset Information Services Ltd. (JF AIS) and ORE Catapult partner to transfer digital twin technology into offshore wind sector.

The digital asset and data management specialist, JF AIS, has completed a critical research project with the Offshore Renewable Energy (ORE) Catapult, the UK's leading technology innovation centre for offshore renewable energy, supporting new technologies with ground-breaking potential.

Adopted by the supermajors in oil and gas, R2S produces virtual walk-throughs embedded with data, enabling personnel to remotely visit sites and easily access technical and operational data – saving time and cost, improving safety, and enhancing collaboration.

Both organisations identified the technology could offer game-changing benefits to the offshore renewables industry. As such, JF AIS undertook a pilot project, recreating a data-rich digital twin of ORE Catapult's Levenmouth Demonstration Turbine.



**Lorna Bennet, mechanical engineer with ORE Catapult, said:**

*"We believe that R2S' technology could revolutionise offshore wind O&M. By digitalising the Levenmouth Turbine, the digital twin has proven to be a unique solution enabling technicians and interdisciplinary teams to view the turbine's inner workings and all pieces of equipment anywhere, at any time. This has enabled remote inspection of the turbine, boosting the planning of operations and reducing the need to go offshore. It has also changed the ways individuals are working – generating significant time and financial savings."*

**Laura Fairley, JF AIS market development manager:**

*"Collaborating with ORE Catapult has increased our understanding of the sector and*

*demonstrated how our technology brings value to offshore wind clients. With offshore turbines getting bigger and more powerful, operations and maintenance costs have escalated. R2S has proven to be an effective planning tool. We are confident our digital twin solution will eliminate non-essential journeys to offshore wind farm sites, but also facilitate the training and familiarisation of teams before deployment.*

*JF AIS is now looking to work with Vattenfall on the European Offshore Wind Demonstration Centre. We are looking forward to working closely with the developers to unlock the power of their data.”*

From the hugely successful project, R2S is now expected to further support offshore wind by transforming wind farm management and turbine inspection methods.

[www.r2s.co.uk](http://www.r2s.co.uk)

#### **Notes:**

From its origins revolutionising the capture and presentation of crime scene and supporting incident investigation for police, government and the forensic sector, R2S has developed its capabilities for other industries.

Recognised as a game-changing solution in oil and gas, the technology has been adopted by supermajors, National Oil Companies (NOCs) and niche operators for over 10 years. As an effective asset management tool, R2S has played a key part in major digitalisation programmes and helped global clients reduce the need to go offshore, improve efficiency and enhance safety.

#### **James Fisher Asset Information Services Ltd**

James Fisher Asset Information Services (JF AIS) enables asset owners and operators to enhance business performance through informed decision-making – providing transparent, value-added digital solutions that deliver results and drive safe and effective asset management.

With the identification, integration, and interrogation of collected data, JF AIS provides comprehensive digital asset management solutions that unlock new ways for customers to be more efficient, productive and to reduce costs. The suite of field-proven digital products and professional solutions we offer includes, machine control, visual asset management, real-time tracking, remote safety management, weighing and measurement, decision support, operational modelling, condition monitoring, IoT platforms, control of work, and other highly specialised systems.

We support customers to harness the value of information they have by intelligently linking data together which empowers them to make effective and efficient decisions in real-time.

JF AIS owns and operates industry-leading digital solutions that are deployed in a diverse range of global markets, including nuclear, defence, oil and gas, mining, offshore renewable energy, marine, transport and infrastructure, and construction.

**James Fisher and Sons plc** is a leading provider of specialised services to the marine, oil and gas and other high assurance industries worldwide. As an innovative and fast-growing organisation, our highly skilled team and over 170 year heritage enables us to deliver solutions to the most demanding operational and technical challenges faced by our customers. By leveraging our global reach, deep operational understanding, breadth of capability and the enthusiasm and commitment of our staff, James Fisher has become a trusted partner of major corporations, government agencies and other valued customers around the world. For more information visit [www.james-fisher.com](http://www.james-fisher.com)

### **About the Offshore Renewable Energy Catapult**

ORE Catapult was established in 2013 by the UK Government and is part of a network of Catapults set up by Innovate UK in high growth industries. It is the UK's leading innovation centre for offshore renewable energy.

Independent and trusted, with a unique combination of world-leading test and demonstration facilities and engineering and research expertise, ORE Catapult convenes the sector and delivers applied research, accelerating technology development, reducing risk and cost and enhancing UK-wide economic growth.

Active throughout the UK, ORE Catapult has operations in Glasgow, Blyth, Levenmouth, Aberdeen, the Humber, the South West and Wales and operates a collaborative research partnership in China.  
[ore.catapult.org.uk](http://ore.catapult.org.uk)