Trelleborg’s marine and infrastructure operation has supplied its SmartPort technology to SOHAR Port and Freezone, in Oman. The project is a huge step forward for both Trelleborg and SOHAR, in their respective ‘Port of the Future’ strategies.

Previously, Trelleborg had supplied the port with Quick Release Hooks (QRHs), Docking Aid Systems (DAS), Fenders and SafePilot Portable Pilot Units (PPUs). However, while each solution provided a touchpoint for data collection, they were supplied across disparate projects, so were not integrated and were manually managed.

The port was determined to take a more holistic approach to operations and Trelleborg has been working to evolve its business model to support smart, connected technologies, so the collaboration was well-timed.

Mark Geilenkirchen, Chief Executive Officer of SOHAR Port and Freezone says, “Further optimizing our operational efficiency, an integrated system which delivers a real-time overview of port approach, vessel berthing and departure, has proved a major enhancement for the port. Integrating our port operations with information presented in real-time, SmartPort by Trelleborg provides the holistic oversight we require to analyze the performance of assets and identify areas for further efficiency gains.”

With the addition of the SmartPort Engine, the distinct products were connected and integrated to provide a holistic Port Approach, Berthing and Fender Array System. The system links with other third party systems from both the port and the vessel, to enable consistent, real time communications between all stakeholders. Data is collected from a number of assets including the approaching vessel, navigation buoys in the harbor and near the berth, as well as the berthing aid system.

This data is transmitted by GPS, AIS and laser to the Trelleborg Cloud. The information is then rationalized and made useful, ready to be presented back to everyone involved in the berthing process. Real time ship data allows the berthing system to activate automatically when the ship is close and keeps the Pilot on board fully informed through the SafePilot interface. This data is also displayed locally through VPN to parties working on the jetty. The Fender Array System collects information on berthing speeds to inform strategic decision making around system maintenance.

SmartPort by Trelleborg is built on a collection of data powered marine technology (MarinTech) product applications that operate standalone, or can be integrated, to support ports and terminals in their drive towards the ‘Port of the Future’ vision, and the data capture and analysis that will enable it.

A joint venture between the Port of Rotterdam and the Sultanate of Oman, SOHAR Port and Freezone is a deep-sea port and industrial complex located in the Sultanate of Oman. The port sits at the center of global trade routes between Europe and Asia, providing unequaled access to the rapidly diversifying economies of the Gulf States and Iran.