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TECHNOLOGY SOLUTIONS FROM ISRAELI-BASED DOCKTECH IMPROVING FREIGHT MOVEMENT THROUGH THE GLOBAL PORT SYSTEM

[ST. LOUIS, MO/May 22, 2023] Innovative technology that creates a virtual representation of the seabed of ports and waterways and provides real-time information to shippers and port operators is now available and has the potential to impact freight movement much like traffic navigation apps have been a game changer for motorists. Details on the digital twin technology developed by Israeli-based startup DockTech were shared by founder and CEO Uri Yoselevich during the opening day of the St. Louis Regional Freightway's FreightWeekSTL 2023. Innovation Day on May 22 featured three virtual sessions highlighting emerging technologies that have tremendous potential to impact the movement of freight for years to come. Docktech's digital twin technology and data analysis provides valuable insight for a variety of maritime stakeholders, delivering greater visibility, predictability and empowerment, and helping to improve freight movement throughout the global port system.

Having formerly served as an Israeli naval officer with a background in computer engineering, Yoselevich combined his passions for maritime and technology to bring DockTech to life with the mission of digitalizing the world's waterways, which he views as one of the greatest challenges impacting river and port operations today.

"If you look at supply chain, ports in general and river systems in particular play a major role in moving physical cargo for over 90% of the world and, quite frankly, ships are not taking as much cargo as they could," said Yoselevich. "These ships experience extensive delays and have additional navigation risks that occur because oftentimes they are not familiar with the conditions of the waterways, and this lack of visibility due to change of tides, change of currents, change of waves or change of sedimentation actually dictates how the supply chain acts and how much we pay for everything. So, this is why it's really important that we are focusing on the waterway side of the ports or rivers, because we believe that can move the needle the furthest."

DockTech offers a real-time status of waterway conditions to facilitate maritime operations and prediction-based activity, leveraging artificial intelligence (AI) and dynamic data. It does so by creating a digital twin – a virtual representation of a physical waterway – from seabed to the surface and everything in between. Implementing DockTech's digital twin solution in ports ensures safer navigation and better resource allocation, which helps to improve the overall maritime supply chain efficiency. By collecting and aggregating dynamic data from existing sensors located on tugboats and harbor vessels, the company can show real-time operational insights about the waterway. Leveraging AI also allows DockTech to create insight predictions and a variation forecast to understand how future conditions could affect operations.

Some of the benefits DockTech hopes to deliver for ports and the shipping industry include a reduction in dredging costs by helping decision makers understand when and where they need to survey and when and where they need to dredge in order to reduce maintenance interruptions. Other ways the high-fidelity digital twin is valuable for stakeholders stems from its role in critical decision making regarding draft restrictions, which can allow for more cargo-per-vessel to increase port call efficiency and increasing navigational safety by reducing grounding risk in shallow waters and identifying exceptions in depth before they become a problem.

Yoselevich said DockTech is ready and being utilized by port authorities and terminal operators across North and South America in parts of Brazil, Colombia, and the U.S. – as well as in Israel in the Port of Ashdod – with more

than 25 ports currently generating data and using the new DockTech solutions. The company is breaking into the U.S. market with a tugboat company and port collaboration operating out of the Port of Tampa Bay.

An additional U.S. connection is evident in the investment DockTech had received from St. Louis-based Cultivation Capital, a venture capital firm which manages a Geospatial Tech Fund that invests in early-stage tech companies like DockTech that utilize location intelligence to solve problems.

“I think it's important to understand just how big of a role the waterway system plays and the impact it has on our everyday life,” said Yoselevich. “The Mississippi River system alone serves 23 different states – export, import, and a lot of other stuff. We live in a good time to do maritime innovation, and we've seen unprecedented money and grants being allocated for the ports community in the U.S., and for general logistics and supply chain with the infrastructure bill. There's just so much potential right now.”

Yoselevich also said DockTech has recently started working with the U.S. Army Corps of Engineers and its Engineer Research and Development Center (ERDC) with the goal of possibly deploying the company's digital twin technology on Corps vessels to help better meet the needs of all system operators along the Mississippi River.

The panel session with Yoselevich was hosted by Mary Lamie, Executive Vice President of Multi-Modal Enterprises for Bi-State Development, which operates the St. Louis Regional Freightway as one of its enterprises.

“Uri and his colleagues at DockTech are creating innovative solutions that help to empower a range of maritime stakeholders with data insights that facilitate better, safer and faster shipping,” Lamie said. “We see tremendous opportunity for the “digital twin” solution to significantly enhance operations within ports while improving the overall maritime supply chain efficiency.”

To review the panel session and get all the details on DockTech's solution, visit www.freightweekstl.com.

FreightWeekSTL 2023 continues through May 26 and will feature virtual panel sessions with industry experts and leaders in freight, logistics and transportation. The week-long freight and logistic expo is being delivered by the St. Louis Regional Freightway and Bi-State Development. To learn more or to register for the remaining panel sessions or view past sessions for FreightWeekSTL 2023, visit www.freightweekstl.com.

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About St. Louis Regional Freightway

A Bi-State Development enterprise, the St. Louis Regional Freightway is a regional freight district and comprehensive authority for freight operations and opportunities within eight counties in southwestern Illinois and eastern Missouri, which comprise the St. Louis metropolitan area. Public sector and private industry businesses are partnering with the St. Louis Regional Freightway to establish the bi-state region as one of the premier multimodal freight hubs and distribution centers in the United States through marketing and advocacy for infrastructure development that supports the movement of freight. To learn more, visit thefreightway.com.