Yardi® Matrix

National Industrial Report

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High-Tech Space the Future of Industrial

- Automation and artificial intelligence are increasingly becoming crucial for industrial real estate tenants looking for high-quality assets that can meet the demands of tomorrow.

- During the early pandemic, industrial occupiers expanded their footprints rapidly. Demand for space was soaring due to e-commerce's explosion, and firms were looking to increase inventories following months of shortages. Today, after both online sales growth and supply chains have normalized, logistics firms and retailers are more focused on optimizing their existing networks and making sure their space can meet the requirements of automation and AI.

- Access to power is one of the biggest challenges for the industrial sector due to the power-intensive nature of automation, AI, advanced manufacturing and data centers. Tenants will be increasingly interested in solar and other sustainable energy sources in coming years to decouple themselves from power grids, especially in high-temperature locations that can be susceptible to brownouts. This is especially true for advanced manufacturing and other facilities that require climate control.

- Amazon will soon begin testing attaching automated micro-fulfillment centers to Whole Foods, with the first such center being built in Plymouth Meeting, Pa., a suburb of Philadelphia. If the concept proves successful, it could expand to Whole Foods locations across the country. One of the reasons Amazon acquired the grocery chain in 2017 was that its meticulous site selection gave the e-commerce giant physical locations in densely populated, high-income areas. Amazon is looking for ways to increase its omnichannel retail offerings, to better compete in both the grocery space and with Target and Walmart, which functionally both operate micro-fulfillment centers at their stores.

- Manufacturers, looking to increase efficiency and precision in the production of goods, are also moving rapidly to bring automation and AI into industrial real estate. While automation has been used for some time in manufacturing, machine learning and deep learning have the potential to improve quality control, predictive maintenance and inventory management, among other applications.

- Automation and AI are not a cure-all, requiring highly skilled human workers for operation and maintenance, as well as thorough contingency plans in case of system failures. The availability of labor, power and water will slow the rollout of facilities powered by automation and AI, but we expect that in the long term, most firms will require facilities with infrastructure to handle high-tech systems.