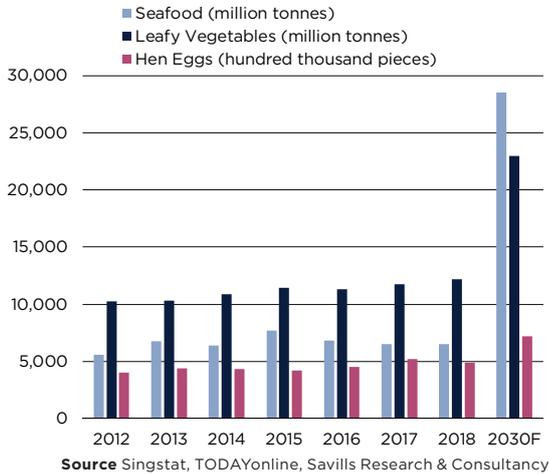


Singapore Industrial



In the industrial and warehousing market winners are starting to emerge

GRAPH 1: Local Production Of Selected Food And Year 2030 Targets



Source Singstat, TODAYonline, Savills Research & Consultancy

With the hand of the pandemic still bearing down hard on global economies, the outlook for most sectors of the real estate market both here and abroad remains cloudy. For manufacturers and retailers, both users of industrial and warehousing space, there are emerging views proffered by thought leaders as to how they may reorganize themselves post COVID-19. From these, we have identified the first tranche of winners in the industrial and logistics markets:

1. Vertical farming and agrotechnology;
2. Cold chain storage;
3. BCP centres;
4. Data centres;
5. Sustainable industrial and logistics facilities;
6. Industry 5.0
7. Tech incubator/research facilities

VERTICAL FARMING AND AGROTECHNOLOGY

Vertical farming is the process of growing crops in a controlled environment by vertically stacking the substrate. It is often soilless farming which uses hydroponics, aquaponics and aeroponics to optimize plant growth. While the start-up costs are high for this type of farming, and there are problems of high energy usage and pollution (not effluent discharge but a high carbon footprint arising from high energy inputs), the need to have greater food self-sufficiency may push this industry forward. Singapore's 30 by 30 food production target is the main driver for this industry to grow. By 2030, Singapore aims to be producing 30% of its nutritional intake domestically. (Please refer to Chart 1.)

COLD CHAIN STORAGE

Prior to the pandemic, the demand for cold room facilities here had been lukewarm. The efficient distribution channels created straight from port of ingress to customer storage reduced the need for such infrastructure. Also, the heavy energy consumption of cold rooms plus the rapid obsolescence of their refrigeration

“Our industrial and logistics sector is entering a new age.”

MAP 1: Food Zones And Data Centres Zones In Singapore



Source JTC, OneMap, Structure Research, Savills Research & Consultancy

systems meant that they required rapid paybacks. However, this could not be achieved due to the efficiency where food and other perishables were delivered to the final customer. With the need to boost just-in-case inventories, cold chain storage should see an uptick in demand. With the pandemic, demand for Singapore's existing cold chain storage stepped up and greater capacity is expected in future to accommodate the need to build buffers into the supply chain. Most cold rooms are located within Food Zones and together with central kitchens, they form a synergistic cluster with a brighter future than before the pandemic. (Please refer to Map 1.)

BCP CENTRES

Business Continuity Planning (BCP) is closely linked with the term strategic resilience. Post pandemic, companies may either ask more staff to spend more time working from home, or, they may set up satellite backup offices to house staff on a rotational basis. For some trades, given the need to maintain high confidentiality and/or quick response times, working from home may not be a solution. The need to set up BCP centres could therefore be the next best solution (other than for staff to work out of the same office). Unfortunately, the current use guidelines for industrial space disqualifies many companies from leasing such premises and a change in regulations may have to be made for this to be allowed to happen. A good starting point would be multi-user industrial properties as they are currently suffering from elevated levels of vacancy. (Please see Chart 2.)

DATA CENTRES

Even as late as the third quarter of 2019, there were fears of saturation in the data centre market here. However, the advent of 5G, working from home, wider use of video conferencing and e-commerce driving up demand for bandwidth and data storage changed that. Prior to the entry of these demand drivers, data centres was already popular amongst investors. They were drawn here because of Singapore's ability to maintain a continuous power supply, low natural disaster risks and global connectivity. (Please refer to Map 1 DC refers to Data Centre.)

SUSTAINABLE INDUSTRY AND LOGISTICS FACILITIES

At the core of sustainable industries lies clean energy and green buildings. Three major industries in line for sustainable innovation include biopharmaceuticals, information technology and energy generation. These three industries occupy a large footprint in our industrial map and the drive towards sustainability will draw in companies which offer solutions to them. The case for greater demand for clean tech space is therefore strong. For logistics facilities, more dark warehouses are also expected. The incentive for this is Singapore's good connectivity squaring off with a high cost of labour as well as a corporate social responsibility to minimize energy consumption.

With or without Covid-19, e-commerce is expected to be the fastest growing segment of Singapore's digital sector over the coming years. In 2020, revenue from the e-commerce market is expected to exceed US\$2.7 billion. The growth rate for the next 5 years to 2024 is forecast at a rapid 9.1% CAGR, resulting in a market volume of US\$3.9 billion by the end of the forecast period. (Please see Chart 3)

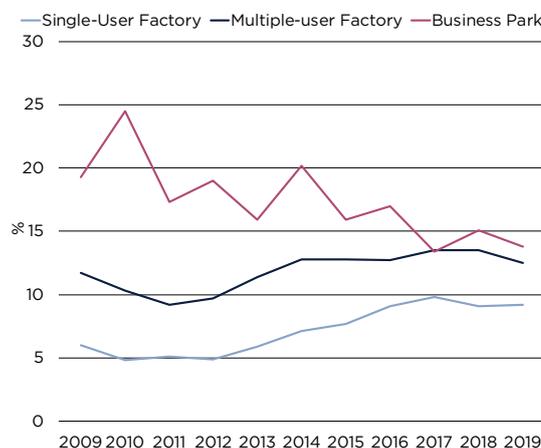
INDUSTRY 5.0

The likely change in the global supply chain order may give rise to smaller hub and spoke operations where economies of scale may be suboptimal. However, the pandemic has shown the need to restructure where the price for minimal supply chain interruption outweighs the specter of higher costs. To overcome the latter manufacturers may leapfrog over Industry 4.0 to land on the Industry 5.0 platform. Industry 5.0 is a co-existence of robots with humans and allows for the mass customization of products. High value add jobs will be created in this process fitting in well with Singapore's labour constraints. New factory and warehousing facilities will have to be built to accommodate this new version of manufacturing. Although still in its infancy here, we expect greater focus on this new production process with new factories built. (Please refer to Table 1.)

TECH INCUBATOR/RESEARCH FACILITIES

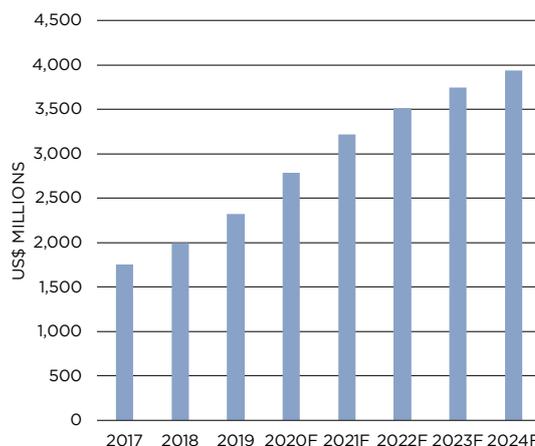
Although there is already infrastructure for start ups here with JTC Launchpad@one-North and Launchpad@Jurong Innovation District, the difference is that the new community will turn its attention towards what's hot in the post pandemic world, namely tech healthcare, remote home office systems, green and sustainable businesses.

GRAPH 2: Vacancy Levels Of Various Factory Types And Business Park Space



Source JTC, Savills Research & Consultancy

GRAPH 3: E-commerce Revenues For Singapore



Source statista, Savills Research and Consultancy

TABLE 1: Various Stages Of The Industrial Revolution

STAGE	CHARACTERIZATIONS
1.0	Late-1700s : Mechanisation Production based on machines powered by water and steam.
2.0	Late-1800s : Electrification Production lines powered by electricity engaged in mass production.
3.0	1970s : Automation Electronics and Computers controlling production machines.
4.0	Present - Digital Connectivity amongst devices with accompanying use of data analytics and artificial intelligence. This is an advancement of stage 3.0.
5.0	Expected - Bespoke The fifth industrial revolution will have robots and high skilled workers co-existing in a collaborative way. The end result is that products can be bespoke for customers.

Source Savills Research & Consultancy, Various

Savills Singapore
30 Cecil Street
20-03 Prudential Tower
Singapore 049712
+65 6836 6888

