



Equipment Demand Index Insights

NEW ZEALAND AND THE INDUSTRY 4.0 ERA

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NEW ZEALAND

Kiwi Economy: The growth story continues

New Zealand businesses have not just been in a growth phase this decade, many of them have also been in transformation.

This is very much reflected in the nature of the assets they are acquiring, according to trend data from Maia Financial's latest Equipment Demand Index (the Index), New Year, New Growth, which tells a developing story around next generation technology.

New Zealand businesses are increasingly adopting what is called the "Industry 4.0 approach", transforming the way they do things and enhancing them with the use of big data, artificial intelligence, drone technology and automation.

It's the New Zealand chapter to what is a global story. Artificial intelligence (AI), for example, is tipped to be one of the major technology trends with major corporations leading the charge, while in China strong top-down leadership from the Government is driving rapid development.

According to consulting firm McKinsey, Alphabet, parent company to Google, has invested roughly US\$30 billion in developing AI technologies, while Baidu - China's equivalent of Alphabet - invested US\$20 billion last year.

In the agricultural sector, drone technology is part of a new approach known as "precision farming." According to accounting firm PwC, the market for drone powered solutions in agriculture is currently at US\$32 billion per year, and 80.0 per cent of civilian drone sales are in agriculture.

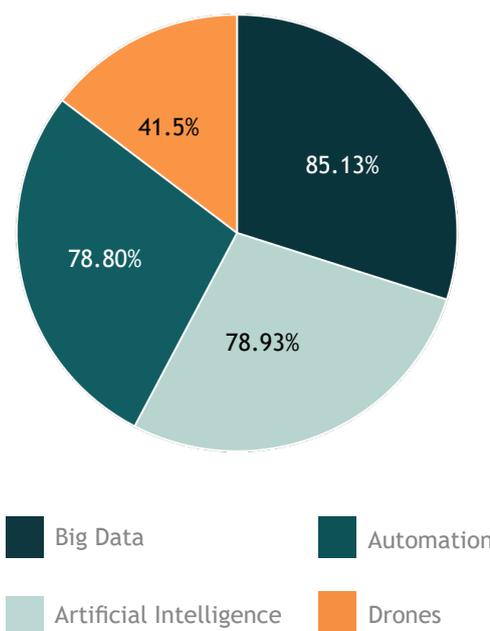
Aerial and ground based drones are revolutionising agriculture, one of our oldest industries, as producers look to increase productivity and make sustainability a priority.

Drones are increasingly used for soil and field analysis, planting, crop spraying and irrigation and their use is set to continue. PwC sees fleets of ground-based drones working together to tackle monitoring while aerial drones collect data and perform other tasks.

This March 2018 quarter, the New Zealand Equipment Demand Index, New Year, New Growth, found that 55.3 per cent of agricultural businesses intend to increase their asset base with 15.0 per cent planning to invest in drone technology. This figure has almost tripled from 5.3 per cent in the March 2017 quarter Index, So Many Assets, So Much Potential, from just 5.3 per cent.

The construction industry is also ramping up its use of drones, and this is borne out in the Index with the percentage of businesses acquiring this technology doubling to 18.2 per cent in this quarter's latest report, New Year, New Growth. Many businesses in the construction industry don't appear to see acquiring drones as an "expense," but as a cost-saving and efficiency tool to help improve security of construction sites and collect real-time data.

Types of Industry 4.0 Technology to be Acquired



NB. Some industries intend to acquire more than one type of Industry 4.0 technology.

Manufacturing breathing new life into local production

As an outward facing economy with an export focus, New Zealand is open to adopting these new technology trends, particularly as overseas demand for produce continues to grow.

According to the March 2017 quarter Index, So Many Assets, So Much Potential, AI, drones, automation and big data comprised 14.9 per cent of planned business acquisitions, according to the Index. One year later, this percentage has grown to 21.4 per cent, with upper corporates leading the way in investing in next generation technology.

Acquisition of artificial intelligence enabled assets began at a low base in the March 2017 quarter, when only 1.5 per cent of businesses indicated plans to acquire, but this figure has more than doubled to 3.3 per cent a year later. Industries looking to acquire artificial intelligence is currently being led by the Government (33.3 per cent), financial services (25.0 per cent) and retail (14.3 per cent).

It is a similar story with drone technology, where the percentage rose from 1.5 per cent to 4.9 per cent over the 12 months. Unsurprisingly, the top two industries looking to invest in this area are agriculture at 15.0 per cent and construction at a slightly higher 18.2 per cent.

For big data, acquisition intentions more than doubled from 2.3 per cent to 4.9 per cent. Interestingly, the majority of industries intending to acquire AI technology aren't looking to acquire big data equipment or services. With the continual development of AI and the management of data that it can collect, store and create, it would be a natural step to look to big data equipment or services to manage it. However, this could change as businesses accumulate more and more data and require additional services to manage the volume.

It's clear from the results of the latest Equipment Demand Index that the export nature of the New Zealand economy is driving change.

As automated machines and software become easier to acquire and implement, together with New Zealand businesses willingness to transform, the adoption and use of Industry 4.0 technology can only be predicted to grow.

In the manufacturing sector the focus is on automation, with the acquisition figure rising from 11.8 per cent to 21.4 per cent over the same period. Out of all the Industry 4.0 technologies, automation, could easily be seen as the "quick win" for manufacturers as it has the ability to increase productivity and improve efficiencies quickly. However, paired with artificial intelligence and big data automated machinery will not only learn from its own working tasks, but will be able to communicate with other machines to learn, building on its own intelligence and creating more accurate, real time data and more productive methods of working.

Big data also featured in the March 2017 research, with 14.2 per cent of manufacturing sector respondents indicating they would acquire big data. Again, referring back to the So Many Assets, So Much Potential Index, this figure was zero, indicating a significant change in attitude and adoption of new technologies. Where New Zealand manufacturers will be competing with overseas manufacturers in Asia as a result of outsourcing, this dramatic change in adopting big data could change the industry landscape and help expand the sector and the country's economy.

Once again, New Zealand industry is standing out as a leader within a global trend. As McKinsey has pointed out, advanced analytics create opportunities to improve productivity, even in manufacturing plants which are considered "best in class."

Companies which successfully build capabilities using big data, says McKinsey, "can set themselves far apart from competitors." And with the rapid pace that technology is currently developing at, this could be just the tip of the iceberg for New Zealand's own Industry 4.0 revolution.

About the Maia Financial Equipment Demand Index

The Maia Financial Equipment Demand Index (the Index) is a bi-annual Index, supported by two specialist whitepapers, which examines the current asset inventory of New Zealand businesses, as well as expectations for future investment. The inaugural Index was run during July and August 2014.

The Index comprises research from three segments: SME's turning over \$5-\$20M, Lower Corporates (\$20-\$100M), and Upper Corporates (\$100-\$250M).

This round of the Index was created from interviews with 250 New Zealand businesses in December 2017.

The Maia Financial Equipment Demand Insights Index uses information from the Index to provide a deeper analysis of the sectors and/or trends researched.

The Index is executed by Collins Communications on behalf of Maia Financial.

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Our focus is on supporting businesses to achieve greater productivity and growth through effective management of their assets, and we are prepared to invest in helping you do this via a residual position in the assets.

Our team is driven to deliver solutions that meet your business needs and which provide operational flexibility. This includes the ability to acquire, change or expand your asset base as the need arises.

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