

Farm of the future



Alexander Olesen, CEO and co-founder of Babylon Micro Farms, explains how modular, onsite indoor farming solutions can help to reduce food waste, and increase product quality and freshness.

Transportation, processing and marketing account for up to \$0.85 of every \$1 spent on fresh produce. However, up to 40% of fresh produce ends up in landfills before it even reaches the consumer.

Removing the need for distribution has many benefits – fewer food miles, less plastic packaging, higher nutrient density and fresher produce.

Modular, onsite indoor farming solutions are an emerging segment within the vertical farming industry. They enable businesses and institutions to grow the food that they consume, reducing waste, improving quality and engaging their clients/customers with a year-round indoor growing experience.

One current option for onsite farms includes the utilisation of vertical farming consultants that can build bespoke farms for customers (for example, Urban Crop Solutions and Farm.One).

In addition, shipping container farms take advantage of retrofitted freight containers to create modular indoor farming solutions (for example, Freight Farms, Growtainer and GrowBox, among others).

Both of these options require high capital expenditure, significant horticultural expertise and labour commitments on behalf of the host location. These attributes make their product/service offerings applicable to niche markets with limited abilities to scale into broader market segments.

The establishment of a remote management platform could provide a meaningful solution to such challenges, enabling companies to control semi-automated hydroponic systems through the cloud and aggregate the data from all the farms in their fleet.

Such software infrastructure creates a superior user experience for the end consumer and provides data analysis that is critical to scaling support for a distributed network of vertical farms.

At Babylon Micro Farms, we are keen to build a future where modular vertical farming solutions are an accessible means of food production in urban areas.

By modular vertical farming solution, we are referring to turnkey indoor growing systems ranging in size from a household appliance up to a shipping container.

As one of the early entrants to this segment of the market, we have a unique vantage point regarding the deployment and support of a distributed network of micro farms.





These are pain points shared by every single company that wants to operate a distributed network of vertical farming systems. This is a rapidly growing market with some standout companies like InFarm and Freight Farms.

They have compelling hardware products specialised for different markets; however, they lack the transferable software capabilities. New entrants to the market will create hardware configurations suited to different sectors and/or crop varieties.

We envision a world where controlled environmental crop cultivation becomes the predominant source of highly-perishable produce categories, such as leafy greens, herbs, berries, etc.

As the market grows, we need modular vertical farming solutions that are accessible and can scale more easily than the large scale, capital intensive commercial operations that dominate the headlines today.

These solutions are not mutually exclusive and we need both in order to reform our food system. New technologies and new business models are making modular vertical farms viable. ●