



Homegrown Hydroponics Farm Artisan Green Collaborates With Tech Giant Siemens To Digitise & Scale Singapore's Farming Operations

- *The partnership between Artisan Green and Siemens will strengthen sustainable farming in Singapore through digitalization and automation.*
- *They will focus on enhancing local farming operations to optimise both crop quality and yield, while also conserving water and reducing energy consumption.*
- *The joint project works synonymously to meet Singapore's '30 By 30' plan which strives to strengthen local agri-food capabilities and enhance food security within the nation.*

SINGAPORE, 18 October 2023 – Singapore's leading modern indoor hydroponics farm, **Artisan Green** teams up with tech giant **Siemens** to pioneer a highly scalable integrated Farm Management System to accelerate farming practices nationwide and build a more resilient food future for the nation.

Established in 2018, Artisan Green has harnessed vertical farming technology to achieve year-round production of crops, ensuring a consistent supply of fresh produce to 41 supermarkets islandwide, as well as online platforms like Redmart and GrabFood.

Aligned with Singapore's '30 by 30' goal, the newly integrated farming operations will enhance crop quality and yield. It is expected to produce 25 tonnes of greens per month, which is estimated to generate a monthly supply of over 134,000 meals with leafy green vegetables.

The partnership was formalised at the signing of the Memorandum of Understanding (MoU) held at the **Industrial Transformation Asia-Pacific 2023 (ITAP)** conference today.

"Singapore's heavy dependence on food imports, which account for more than 90% of our food supply, exposes us to potential food security risks, exacerbated by factors such as population growth, urbanisation, climate change, and unprecedented events like the COVID-19 pandemic. That's why we need new ways of smart farming that integrate automation and digitalisation, so as to produce more with less, and to produce locally," commented **Isabel Chong, Head of Siemens Digital Industries in ASEAN**.

The partnership will leverage automation and digitalization, and an uncompromised focus on plant science to advance sustainable farming operations at Artisan Green's farm.



Farm Management System Elevates Crop Quality and Efficiency

Powered by Siemens technologies, Artisan Green will be able to gain precise control over its hydroponic system, enabling it to do the following:

- Remotely access and monitor the farm operations, so that the growing parameters can be easily and securely set to an optimum to ensure highest-quality crop production from anywhere.
- An integrated recipe control system to facilitate the selection of the right cultivation program for each crop. The system can store and manage recipes including lighting intensity and duration, irrigation schedules, nutritional needs and temperature to enhance resource efficiency. It can also help to minimise the risk of crop diseases, pests and weather-related disruptions.
- With the optimum control over the farming operations, sales planning and scheduling can be adjusted to meet the demand efficiently and optimise seeding and growing tasks.

Overall, these technologies will enable Artisan Green to:

- Boost Artisan Green's current yield of leafy vegetables and herbs by a remarkable 25-fold.
- Achieve an impressive 95% reduction in water usage compared to traditional farming.
- Reduce the farm-to-table carbon footprint while minimising overall waste throughout the harvest.
- Eliminate the need for pesticides.

Elevating Energy Efficiency for Sustainable Agriculture

Utilising a range of advanced technologies such as Artisan Green's proprietary Precision Nutrient Injector, a Chilled Water cooling system as well as Siemens' energy management software, Artisan Green effectively reduces the energy consumption of traditional indoor growing systems by half. As a result, Artisan Green's new farm is projected to operate at only 15 kWh per kilogram of produce, exceeding Singapore Food Agency's Clean & Green standards.

According to **Ray Poh, Founder of Artisan Green**, this partnership is pivotal in advancing the local vertical farming industry. He stated, "Supported by Siemens' state-of-the-art technological capabilities, we are able to advance our vertical farming operations and would greatly improve the efficiency of our manpower across operations, business planning and R&D. This will allow us to achieve greater production volumes at a lower operating cost; enabling us to provide fresh, high quality local produce at affordable prices for Singaporeans. We fully intend to set a new benchmark for hydroponics operations and hi-tech agriculture in Singapore and the world."



The partnership between Artisan Green and Siemens marks a significant milestone in the pursuit of sustainable and resilient agriculture in Singapore.

For media enquiries, please contact:

Artisan Green

Alyssa Leong

Tel: +65 9788 6127

Email : alyssa@elliottcommunications.com

Siemens

Sharon Teo

Tel: +65 9788 0207

Email: sharon.teo@siemens.com

About Artisan Green

Established in 2018, Artisan Green is a modern indoor hydroponic farm that specialises in producing deliciously grown, pesticide-free produce. Deeply passionate about delivering produce of the highest quality, Artisan Green is committed to food production methods that are heavily grounded in plant science, sustainable and affordable to all. As a technologically-advanced Agritech company, they believe in growing more using less resources, efficiency and consistently delivering high-quality produce through automation and disciplined operations management.

For more information, please visit www.artisan.green.

About Siemens

Siemens AG (Berlin and Munich) is a technology company focused on industry, infrastructure, transport, and healthcare. From more resource-efficient factories, resilient supply chains, and smarter buildings and grids, to cleaner and more comfortable transportation as well as advanced healthcare, the company creates technology with purpose adding real value for customers. By combining the real and the digital worlds, Siemens empowers its customers to transform their industries and markets, helping them to transform the everyday for billions of people. Siemens also owns a majority stake in the publicly listed company Siemens Healthineers, a globally leading medical technology provider shaping the future of healthcare. In addition, Siemens holds a minority stake in Siemens Energy, a global leader in the transmission and generation of electrical power.

In fiscal 2022, which ended on September 30, 2022, the Siemens Group generated revenue of €72 billion and net income of €4.4 billion. As of September 30, 2022, the company employed around 311,000 people worldwide.

Further information is available on the Internet at www.siemens.com.