



Astrocast partners with Avirtech to enable data-driven smart farming in remote areas

Satellite IoT connectivity and devices provide the technology that supports remote IoT-based agriculture

Lausanne, Switzerland and Singapore, 1 December 2022 – [Astrocast](#), a leading global nanosatellite IoT network operator, and [Avirtech](#), a leading provider of plantation control systems that monitor site conditions to reduce operational costs and increase yields, today announce a smart farming partnership. Astrocast is providing Avirtech with Satellite IoT (SatIoT) connectivity solutions for its [BIOTA](#) intelligent farm control system. This includes integrating its technology into [Avirtech's Avirlink S1 Communication Nodes](#) – this enables plantation owners to make legacy sensors smart by recording and controlling information remotely over long distances.

This partnership and technology integration provides Avirtech the capability to offer clients connectivity in areas with limited or no terrestrial/cellular connectivity, such as mountainous areas. Access to SatIoT connectivity in these kinds of regions allows plantation owners to better track and understand plantation health. Using sensors that are connected to the cloud, and IoT-based digital agriculture, helps users develop a connected plantation that is led by data-driven farming – tracking factors like weather, temperature, humidity, rainfall data, water level, water quality and soil moisture.

"Many plantations are in remote areas where fixed line, terrestrial and cellular connectivity is not ubiquitous. This is not ideal for farmers and plantation owners – who are trying to adopt [Agriculture 4.0](#) and develop digital agriculture ecosystems that make use of IoT (internet of things) and analytics from field-based, integrated sensor solutions," says Rendy Ferixsen, CEO, Avirtech.

He adds, *"Access to Astrocast's SatIoT connectivity, and integrating its communication modules into our devices, is enabling us to provide clients with the connectivity options required in these kinds of challenging regions. It now means that plantation owners can remotely measure an area's microclimate, for example, and gather accurate sensor-led information that informs predictions and forecasts about potential upcoming changes to plantations. With this, plantation owners can make smarter management decisions and take more control of their crops and yield."*

In any remote IoT deployment, device size, power consumption and reliability are priority concerns. Astrocast's small-sized devices offer low power consumption and long battery life (up to 10 years). These considerations become vital as organisations like Avirtech embark upon deploying strategic SatIoT initiatives for clients. Further, by combining good-quality battery technology with an intelligent approach to data transmission, the lifecycle of IoT solutions can be significantly extended.





Rendy Ferixsen, CEO, Avirtech says, *"After testing several other satellite solutions, Avirtech selected Astrocast because it outperformed the competition on power consumption, antenna size and cost."*

Bidirectional IoT has a vital role to play here too. The ability to send commands back to assets, rather than just receive data, is powerful. It enables an array of new use cases, including remote management of equipment. Farmers can command silos to release food, open gates or manage irrigation systems, without any need for expensive and often hard-to-source human interaction. With information seamlessly integrated with existing analytics, AI, or machine learning solutions, organisations have the power to use this data to improve understanding, and direct actions of remote assets.

"Only 15% of the world has access to terrestrial networks. This collaboration between Astrocast and Avirtech allows its agricultural clients and plantation owners to access to digital ecosystems in remote farming areas, using sensors to monitor and control plantations. By deploying Avirtech's technology, enabled with SatIoT connectivity, plantation owners can improve the efficiency of their farms, increase output, increase productivity and improve sustainable development goals," said Fabien Jordan, CEO and Co-Founder, Astrocast. *"Traditionally, a lack of weather-based information, informing smart nursery plantation management, has made it difficult for farmers and plantation owners to maintain their operations. Agriculture-based IoT solutions from firms, like Avirtech, can simplify processes and deliver the data and transformation needed by this vital industry to cut costs, cut waste and improve sustainability – all while improving production returns."*

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About Astrocast

Astrocast SA operates a leading global nanosatellite IoT network, offering services in industries such as Agriculture & Livestock, Maritime, Environment & Utilities to name a few. The Astrocast network enables companies to monitor, track, and communicate with remote assets from anywhere in the world. It relies on superior L-band spectrum through a strategic alliance with Thuraya. In partnership with Airbus, CEA/LETI and ESA, Astrocast developed Astronode S, an ultra-low power and miniaturised module compatible with inexpensive L-band patch antennas. Founded in 2014 by a renowned team of experts, Astrocast develops and tests all its products in-house, from the satellites to the modules. Astrocast is listed on [Euronext Growth Oslo](https://www.euronext.com/ro/oslo).

For more information visit www.astrocast.com

About Avirtech

Avirtech provides crop intelligence, including plantation control systems for monitoring site conditions through aerial and ground information, such as topography, crop health, soil quality, rainfall and farm operations activity, and other processes necessary for production cycles. Avirtech's solutions provide optimization for crop yield and reduce cost for plantation.



Through precision agriculture and enabling data-driven insights, Avirtech accelerates the digitalization of plantations to solve workforce shortages and improve long-term sustainability. Avirtech solutions tri-prong approach includes remote sensing for plantations using drones, detailed insights using ground sensors, and precision spraying for crop protection. For more information visit www.avirtech.co

Media Contact Astrocast

Fatima Vigil – Head of Marketing

media@astrocast.com

