

PRESS RELEASE

November 1, 2023

Kubota and Chouette partner to drive Autonomous Vineyard Innovation

Following the investment of Kubota in November 2022, Kubota Corporation and Chouette – a French-based start-up specialising in precision vineyard management technology for the viticulture industry, announced on October 23, 2023 that they will further strengthen their partnership to develop a joint solution for vineyard automation.

Together, Kubota and Chouette focus on practical tools that leverage the synergies between advanced equipment and Artificial Intelligence (AI) technology, and support wine growers to overcome the current challenges facing the sector, including labour shortages and issues related to sustainable agriculture development.



Picture: Kubota tractor equipped with Chouette sensors for scanning diseases pressure in vineyards on test farms in Italy.

Chouette uses advanced sensors and Artificial Intelligence (AI) technology to analyse images captured by cameras in order to detect diseases, tree vigour and specific tree problems like frost damage or water stress. Based on the data analysis, Chouette's unique algorithms can create the optimal Variable Rate Application (VRA) maps and spray volume advice for chemical application or other necessary treatment advice.

Kubota is accelerating open innovation through its established Innovation Centers in the different regions of the world. Innovation Center Europe's focus is to build new business innovations in Orchard and Vineyard farming system solutions through emerging technologies such as Digitalisation, AI, Robotics and Autonomous equipment, and advanced Sensor technologies. The key success factor is to create the system link between the equipment in the field and the digital world.

Since the investment, Kubota have been verifying Chouette's technology with partners, growers in Italy and France and now aim for commercialisation. Both organisations will work together to demonstrate precision agriculture solutions for vineyards through the Kubota dealership network.

The European Union is the world's largest wine producer. There are around 2.5 million wine growers and 3.2 million hectares of vineyards in the EU. As the environment changes and supply of labour diminishes, managing vine health and grape yields is becoming increasingly costly, challenging and time consuming. Besides that, achieving a better wine tasting experience starts in the vineyard cultivation process, where quality and yield are key to keep up production and to overcome the challenges posed by customer demand.

"Through this partnership we aim to provide effective solutions to customer' pain points in vineyards such as disease intensity detection and the adoption of sustainable farming practices. Our approach combines embedded, tractor mounted sensors, mapping and AI-based vine analysis, bringing precise vine care and prescriptive vine treatment possibilities to EU winegrowers," says Hervé Gérard-Biard, VP Business Development at Kubota Holdings Europe.

Kubota has a proven history of providing farmers with efficient and reliable agricultural machinery. However, the global economy is undergoing a major transformation, particularly in the areas of food, water, and the environment, exactly the ones in which Kubota operates. In the next 10 years we will see major changes in this area, and we definitely need to keep up with the pace of the market regarding sales and services.

"Our key target is to understand how to increase vineyard farming profits, while protecting the environment and tackling vine growth needs. We are working with several testing vineyards across Europe to achieve this target. They collected data signals from their own vineyards via embedded actuator systems on the Kubota tractor each time they entered the ground with the machine, receiving data-driven early disease detection from the Chouette platform and prescriptive maps later on," added Daria Batukhtina, Strategic Business Development Manager at Kubota Innovation Center Europe.

"Innovation in precision agriculture tools is essential for vineyards as it enhances productivity, optimises resource usage, and improves grape quality. With our intelligent solution working with Kubota's tractors and machinery, we look forward to contributing to a sustainable wine practices and cost savings in vineyard operations," says Charles Nespoulous, co-founder and CEO of Chouette.

With care for the environment, the wine grower takes control of the spraying with this technology. Embedded sensing enables mapping, disease diagnosis and prescriptive treatment within the whole season. Kubota' vision for healthy vineyards includes a number of areas of application to be developed in the future, such as vigour mapping, yield prediction, etc.

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About Kubota

Kubota has been a leading manufacturer of agricultural equipment, construction equipment, lawn mowers and Industrial Engines since 1890. With its global Headquarters in Osaka Japan, offices in more than 120 countries, and more than 50,000 employees in North America, Europe and Asia, Kubota had a turnover of \$20.4 billion (US\$1=¥131) in 2022. Although machinery equipment is its main products line, Kubota also produces a wide range of products such as city water purification systems, irrigation systems, piping systems, roof and home construction, and large underground valves.

Our Mission

Our Brand Statement, "For Earth, For Life," speaks to our commitment to the conservation of the environment while aiding the production of food and water supplies, which are vital to meet the needs of our society, as the world's population continues to grow. This mission is accomplished every time a Kubota tractor harvests the land

to produce food or when our construction equipment excavates to transport water or provide shelter. For more information on Kubota, please visit www.kubota-global.net or www.kubota-eu.com.

For further information, please contact [\(please add your local contact details\)](#):

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Download link to images:

[Image 1_Kubota & Chouette](#) Kubota tractor M5091 equipped with Chouette sensors for scanning diseases pressure in vineyards on test farms in Italy.



[Image 2_Kubota & Chouette](#) Kubota is working with several testing vineyards across Europe to understand how to increase vineyard farming profits. Here with a Kubota tractor M5091 and a Kubota sprayer XTA6315, equipped with Chouette sensors.



[Video Kubota & Chouette](#) Prototype - Variable rate spraying based on disease intensity detection (sensor). Embedded sensing enables mapping, disease diagnosis and prescriptive treatment for better wine crops. By applying Chouette unique algorithms to the detected disease spots and tree vigour areas, an automatic analysis is created and merged into a prescription maps executed by farm machinery equipment capable of doing VRA.



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