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NEC, Kagome to improve tomato yields using AI

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The new service uses NEC's AI-enabled agricultural ICT platform, CropScope, to visualize tomato growth and soil conditions based on sensor data and satellite images, and to provide farming management recommendation services. This AI enables the service to provide data on the best timing and amounts of irrigation and fertilizer for healthy crops. As a result, farms are able to achieve stable yields and lower costs, while practicing environmentally sustainable agriculture without depending on the skill of individual growers.

Tomato processing companies can obtain a comprehensive understanding of the most effective growing conditions for tomato production on their own farms, as well as their contract growers. Also, they can optimally manage crop harvest orders across all fields based on objective data, which helps to reduce yield loss and improve productivity.

NEC and Kagome began agricultural collaboration in 2015, and by 2019 they had conducted demonstrations in regions that include Portugal, Australia and the USA. An AI farming experiment in Portugal in 2019 showed that the amount of fertilizer used for the trial was approximately 20% less than the average amount used in general, yielding 127 tons of tomatoes per hectare, approximately 1.3 times that of the average Portuguese grower, and almost the same as that of skilled growers.

Kagome will establish a Smart Agri Division in April 2020, first targeting customers in Europe, then aiming to expand the business to worldwide markets.

“Kagome has been developing agricultural management support technologies using big data in collaboration with NEC since 2015, with the aim of realizing environmentally friendly and highly profitable agricultural management in the cultivation of

tomatoes for processing on a global basis," said Kengo Nakata, General Manager, Smart Agri Division, Kagome. "By combining Kagome's farming know-how with NECâ??s AI technology, we will realize sustainable agriculture," he added.

"NEC is pleased to have signed a strategic partnership agreement with Kagome," said Masamitsu Kitase, General Manager, Corporate Business Development Division, NEC. "NEC aims to realize a sustainable agriculture that can respond flexibly to global social issues on climate change and food safety," he added.