

# Grape Cultivation in the "Fujitsu GP2020 Wine Farm"

Bio-Diversity Conservation x Winemaking Project

#### Overview

"Fujitsu GP2020 (Note) Wine Farm" is Located in the eastern part of the Kofu Basin, the old Okunota farmland in Koshu City, Yamanashi Prefecture possesses soil with good drainage and a sloping surface with good exposure to the sun. Employees of Fujitsu and their families help out in farming activities through to harvesting. Together with farmers who are aiming to make the world's No. 1 wine, they take on the challenge of cultivating Cabernet Sauvignon grapes, which is said to be difficult in Japan, and the challenge of producing great-tasting Fujitsu GP2020 wine.

Note · · · GP2020 (Green Policy 2020)

Mid-term environmental vision targeted by the Fujitsu Group in 2020. "Conservation of Bio-Diversity" is one of the three goals cited by the Fujitsu Group to demonstrate the role and leadership that it ought to play in resolving global environmental problems.









# Background & Aim

This project aims to promote regional exchange and revitalization of the agricultural regions by achieving the goals of both "agricultural regions which require manpower to make effective use of the farmlands" and "companies which would like to contribute to the regions and provide training and welfare benefits for their employees". We participate in the Yamanashi Corporate Farm Building System, which is promoted by Yamanashi Prefecture. Fujitsu entered into an agreement with the "Okunota Winery" owned by the grape farmers of Koshu City, Yamanashi Prefecture. In 2010, activities started on one plot of the vineyard (3a) as the "Fujitsu GP2020 Wine Farm".

The policy of the "Okunota Winery" in making use of fallow farmlands to carry out farming activities without using agricultural chemicals and giving due consideration to bio-diversity is in line with the bio-diversity conservation efforts of Fujitsu. Through these activities, Fujitsu is helping to raise environmental awareness among the participants and contributing to regional development and the conservation of bio-diversity.

# Aiming to be World No.1 in Winemaking Together Supporting Grape Cultivation by Using Multi-Sensing Network

In order to realize the dream "Making the World No. 1 Wine", Fujitsu makes use of ICT to monitor the harvesting period and coloring extent, and support high-quality wine making.

## Background & Aim

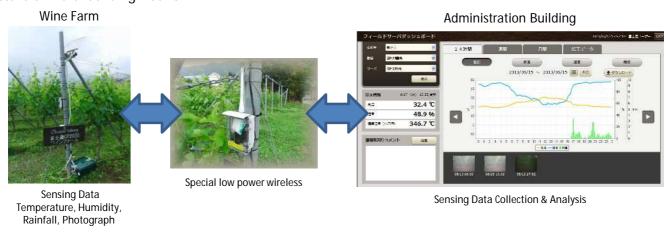
In Mar 2011, Mr. Nakamura, the President of Okunota Winery consulted Fujitsu on whether ICT could be used in winemaking. "By installing temperature sensors in the vineyard and monitoring the atmospheric temperature, wouldn't it be possible to ascertain the grape harvesting period and coloring extent", he asked. In order to fulfill this request, Fujitsu decided to provide a multi-sensing network system.

In wine brewing, it is important to know when to harvest the grapes and the coloring extent. It is said that understanding the atmospheric temperature changes in the vineyard is effective for this purpose. The aim is thus to create a higher quality wine by automatically collecting and analyzing the atmospheric temperature data using the sensing system. Previously, the collection and analysis of atmospheric temperature data was done manually in general using data recorded by temperature recording devices installed in the vineyard. However, by using the multi-sensing network system, it is also possible to reduce the production cost.

### Overview

Starting in June 2011, atmospheric temperature data was collected and analyzed at 10 minutes interval 24 hours a day at the Fujitsu GP2020 Wine Farm using the sensor box and special low-power wireless network developed by Fujitsu. As a wireless operator license need not be obtained and there are also no communication costs incurred, the system can be built and run at a low cost within a short period of time.

Structure of Multi-Sensing Network



#### **Effects**

- Improve wine quality by understanding the harvesting period and coloring extent
- Enable the prediction of disease and pest outbreak
  - \*Adequate extermination is possible by correctly understanding temperature changes in a short period of time.

    Reduction in the cost and labor required to scatter agricultural chemicals
  - \*Cost reduction amount: 8,000- 15,000 yen x Half the number of scatterings
    Reduction in the chances of workers getting exposed to agricultural chemicals

#### Fujitsu Limited