Summary

- **Smart Agriculture Market Conditions**
  - Both the global and Japanese smart agriculture markets are expected to grow at a compound annual growth rate (CAGR) of around 15% until 2030, with a particularly **high demand expected within the "Precision Agriculture" and "Smart Greenhouse" sectors.**
- **Japanese Regulations**
  - Japan does not have any laws or regulations that cover smart agriculture as a sector, but there are **laws and regulations in place for the use of various technologies used in smart agriculture.**
  - Under the Civil Aeronautics Law, **drones for pesticide spraying are required to be registered with the Ministry of Agriculture, Forestry and Fisheries**, and the **use of pesticides other than those approved by the government as "drone-friendly pesticides" is prohibited.**
  - Japan also has **guidelines for the safe operation of autonomous farming equipment, recommending specific safety actions for machinery under direct and remote supervision.** It has also issued **guidelines for reshaping farming plots in order to more smoothly incorporate autonomous farming equipment.**
  - MAFF also has issued **guidelines regarding the proper handling of agricultural data by smart agricultural service providers for AI training purposes.**
- **Support Measures in the Smart Agriculture Sector in Japan**
  - The Japanese government offers **several incentives to farmers considering the implementation of smart agriculture, as well as developers and providers of smart agriculture technology, both on the national and prefectural levels.**
  - These measures include access to **information sharing and business matching platforms as well as subsidies and agricultural equipment leasing programs**.
- **Outline of the Top Players in Smart Agriculture**
  - The largest smart agriculture product and service providers are **headquartered in the United States** and **tend to focus on precision agriculture technologies** such as autonomous tractors and robots, and crop monitoring systems.
  - Meanwhile, **major Japanese companies from various fields** such as telecommunication, geospatial technology and others have made **significant advancement in smart agriculture technology by introducing drones, autonomous vehicles, ICT platforms, sensors and other technologies.**
- **Challenges in the Introduction of Smart Agriculture Technology in Japan**
  - There are various challenges in the implementation of smart agriculture in Japan, related to **agricultural practices, technology, human resources and cost of implementation**, and the government is taking steps to address these issues through **subsidies, the publication of guidelines, and outreach to various stakeholders** through education programmes about smart agriculture technologies and demonstrations of smart agriculture technology.