

# Deep4Sat43

Satellite technology enhancing forest health



A critical challenge faced by the Netherlands Food and Consumer Product Safety Authority (NVWA) is its efforts to protect the health of pine trees across the country. Traditionally, NVWA inspectors have to conduct time-consuming walks through forests to identify unhealthy trees suffering from various ailments. This labour-intensive process not only takes up valuable time but also limits the number of inspections they can perform.

To tackle this issue, the Eureka Clusters AI Call 2021 project Deep4Sat43 introduced a solution that leverages advanced satellite technology. By using 30 cm multispectral satellite imagery, NVWA can accurately identify and map unhealthy pine trees across vast areas. This innovative approach provides inspectors with detailed GIS maps that highlight specific areas of concern, allowing them to prioritise their visits more effectively. By focusing on locations that need immediate attention, inspectors

can proactively address health issues before they escalate, making the process significantly more efficient.

The benefits of this innovative approach extend beyond just saving time for inspectors: it enhances the overall health management of pine forests. Early identification and intervention lead to more effective treatments, reducing the potential spread of diseases and pests that could threaten entire ecosystems. This proactive strategy not only promotes healthier forests for future generations but also optimises NVWA's resources. Ultimately, the collaboration exemplifies how advanced technology can transform traditional practices, leading to better environmental outcomes and increased societal well-being.

**More information:**

<https://itea4.org/project/deep4sat43.html>