

Forestry Biosecurity Intelligence Challenge

Overview

The Ministry for Primary Industries invites innovators, to participate in the Forestry Biosecurity Intelligence Challenge, to support early detection of diseases impacting the forestry estate across New Zealand. Climate change is impacting our environment and increasing the risk of new diseases and pests arriving in New Zealand. Based on overseas experience we are able to see the risk to different tree species as a result of diseases and threatening the viability of the forestry sector.

There is an opportunity to identify presence of diseases like needle cast diseases, dothistroma needle blight, that affect the foliage of the tree through remote sensing. Due to location of forests and sometime the scale of a forest it is not practical to do this through ground base approaches.

Early detection of disease impact and the health of the forest can support forest management planning, early identification of risks and therefore implementing mitigation options as well as obtain information on spread of diseases for trend analysis.

Selected solutions should identify where this can be trialled in an operational environment to assess their effectiveness of early disease detection and support ground truthing to identify how early the disease can be detected, ideally prior to visual (human eye) detection.

Selected proposals will receive flight opportunities aboard commercial orbital or suborbital platforms to validate their satellite sub-systems in space or in the stratosphere.

Successfully matured technologies demonstrated through the scheme may have the opportunity to be incorporated into a future sovereign national mission.

Challenge Objective

To identify and test cutting-edge, locally developed technologies that improve the detection, tracking, and analysis of diseases in the forestry estate.

End User

Ministry for Primary Industries and the forestry sector.

Desired Outcomes

The scheme seeks to develop sovereign forestry domain awareness capabilities to improve early detection of forest diseases to support policy development for biosecurity practices and monitoring across New Zealand for early risk detection.

It also promotes inclusive participation, fosters commercialisation pathways, and generates flight data to support future mission integration and export potential.