

# PREDICT SUPPLY & REDUCE EXCESS INVENTORY

Procure the right timber, streamline logistics, optimise capex and boost profitability.

### **Business Challenge**

In the commercial forestry markets, mills need to operate intelligently to drive production efficiency and compete harder. Processing the right mix of species and log sizes is a crucial part of this, as is being able to forecast supply to avoid mill downtime. All this while ever-increasing haulage costs put pressure on margins. Accurate, regularly refreshed data on harvest expectations and transportation routes – that's cost-effective to access – has been hard to come by.



Mill Optimisation calculates crucial metrics



# Plan, Schedule and Optimise Mill Operations

Mill Optimisation provides an advance view of harvesting expectations for species, dimensions and quality. It also provides the data to delineate your supply area. Use this continuously refreshed data to:

- Accurately identify tree species and calculate log dimensions by location
- Calculate the most cost-effective transportation routes
- Know in advance what to expect from harvesting operations and prioritise your production schedule



#### **Product Overview**

Mill Optimisation uses geospatial AI to remotely provide an advance view of harvesting expectations. These constantly refreshed insights enable you to optimise production schedules, minimise the need for excess inventory and calculate cost-effective transportation routes. Data can be integrated into existing GIS systems, or delivered through our Forest SAT solution on the Rezatec platform where you can view your visualization and analytics data from a dashboard. Quarterly updates ensure you are evaluating the most up to date information.

Our algorithms correlate area-wide satellite data and environmental data (eg. Hydro-topographic variables) with your existing ground plot information to produce species distribution maps. This data is combined with satellite-derived optical and synthetic aperture radar (SAR) data and environmental layers to determine the following key outputs, vital to understanding harvest potential, calculating optimal transportation routes, and optimizing mill production logistics:

#### Harvest Forecast

- Species distribution
- Total stand volume by species
- Number of trees per hectare
- Height & DBH
- Total volume

#### Mill Logistics

- Stand delineation
- Transport route boundaries
- Optimum hauls per day per mill & per species

#### Haulage

- Cost calculator
- Route calculator
- Trucker routing app
- Plot inventory map



## **Rezatec Geospatial Al**

Mill Optimisation is part of Forest SAT, our geospatial Al solution, which remotely provides a view of your entire forest inventory across vast geographic areas and analyses disturbance events that threaten its value.

Rezatec uniquely combines remote sensing analysis with data science to deliver geospatial AI, enabling dynamic decision making for clients across the globe in water, agriculture, energy and forestry.



#### **CONTACT US TO FIND OUT MORE**

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