

# FORESTRY 4.0 PROGRAM OVERVIEW

## Description

The biggest challenges facing the forest sector currently are dealing with labour availability, maintaining a competitive fibre supply, and having flexibility in the supply chain to react quickly to market demands. Driven by the need to respond to these challenges, FPIInnovations launched the Forestry 4.0 program.

Forestry 4.0 is a **\$40 million** program over seven years aimed at transforming the timber supply chain to bring automation in forest operations.

This major undertaking is being driven through extensive partnerships with the research community (e.g., the NSERC Canadian Robotics Network, FORAC, and Skogforsk), specialized technology providers, equipment manufacturers, forest companies, and both federal and provincial governments.

## Approach

The Forestry 4.0 program consists of a series of interlinked technology developments, demonstration projects, and implementation activities that will be conducted over the duration of the program.



**AUTOMATED HARVESTING**



**AUTONOMOUS TRUCKS**



**IN-FOREST CONNECTIVITY**

Under these three main components, leading edge technologies will be used to shorten the learning curve for new operators, ramp up machine productivity, and mitigate labour shortages by automating machine functions.



## Ongoing projects in 2020



### AUTOMATED HARVESTING

#### Autonomous navigation

Offer a suite of sensors and processing techniques to enable autonomous navigation within a skid trail.

#### Operator assistance

Create tools to provide more real-time information to ease the operators' tasks.

#### Crane automation

Develop an autonomous crane that can load and unload a trailer.



### AUTONOMOUS TRUCKS

#### Automated follower in truck platoon

Provide a transportation solution where one driver can operate a convoy of 2–3 trucks on resource roads.

#### Autonomous trucks operating in mill yards

Develop a solution to bring autonomous trucks in mill yards (controlled environment)—a stepping-stone for complete automation on resource roads.



### IN-FOREST CONNECTIVITY

#### Local private network

Develop a technology that provides high speed web access to remote forest operations.

#### Forest road traffic awareness system

Establish a traffic awareness system that could replace the existing CB radio network system.

### Learn more

To find out more about the Forestry 4.0 program and how your organization could be involved as a partner, please contact:

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### Benefits

- Develop new market opportunities for technologies and products.
- Be first to access new technological developments and stay ahead of the competition.
- Facilitate communication between owners, distributors, and manufacturers, and develop new revenue streams.
- Access leading-edge companies that could potentially become business partners.
- Accelerate the incorporation of automation and robotics technologies within your product lines.
- Benefit from FPInnovations' extended research and development budget.
- Be part of a community involved with transforming the timber supply chain and increasing the competitiveness of the forest sector.

