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Canadian Wood Fibre Centre



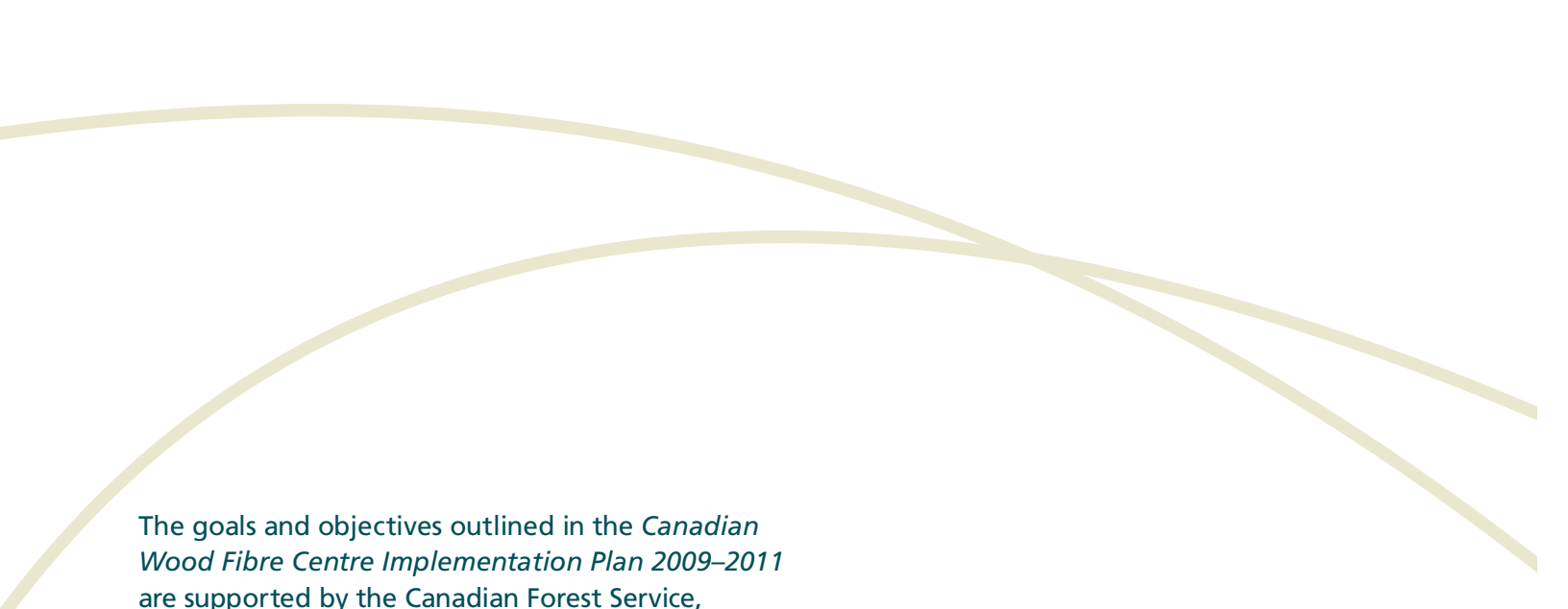
Implementation Plan 2009–2011

Canadian Wood Fibre Centre

Working together to optimize wood fibre value – creating forest sector solutions with FPIinnovations



Canada



The goals and objectives outlined in the *Canadian Wood Fibre Centre Implementation Plan 2009–2011* are supported by the Canadian Forest Service, Natural Resources Canada, and by FPInnovations.



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Executive Director
Canadian Wood Fibre Centre

We support the goals and objectives of the Canadian Wood Fibre Centre as outlined in this implementation plan.



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March 2010



**Canadian Wood
Fibre Centre**

Implementation Plan 2009–2011

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ISBN 978-1-100-51263-1 (print)
Cat. No. Fo149-1/2009

ISBN 978-1-100-15222-6 (On-line)
Cat. No. Fo149-1/2009E-PDF

Library and Archives Canada Cataloguing in Publication

Canadian Wood Fibre Centre
Implementation plan, 2009–2011 / Canadian Wood Fibre Centre

Text in English and French on inverted pages.
Available also on the Internet.

1. Canadian Wood Fibre Centre.
2. FPIInnovations.
3. Forests and forestry--Economic aspects--Research--Canada.
4. Forestry innovations--Canada.
5. Wood--Research--Canada.
6. Forest products--Research--Canada.
7. Forests and forestry--Research--Canada.
8. Forest surveys--Canada--Methodology.
- I. Title.
- II. Title: Plan de mise en oeuvre, 2009–2011.

SD356.54 C3 C36 2010

354.5'52740971

C2010-980080-XE

Copies of this publication may be obtained free of charge from:
Publications
Natural Resources Canada
c/o St. Joseph Communications
Order Processing Unit
1165 Kenaston Street
PO Box 9809 Station T
Ottawa ON K1G 6S1

Telephone: 1-800-387-2000 (toll-free)
Fax: 613-740-3114
TTY: 613-996-4397 (teletype for the hearing-impaired)

Cover photo:
LiDAR Image of the Petawawa Research Forest: photo courtesy of Forestry Research Partnership



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Executive Summary

This implementation plan, which covers the period 2009–2011, aims to provide direction for executing the research and knowledge exchange programs of the Canadian Wood Fibre Centre.

As the centrepiece of a new forest sector innovation strategy for Canada, three existing forest sector research institutes were consolidated in 2007 to form FPIInnovations, one of the largest forest research organizations in the world. Simultaneously, a new branch of Natural Resources Canada's Canadian Forest Service was created – the Canadian Wood Fibre Centre (CWFC) – to partner closely with FPIInnovations and significantly strengthen its forest-level research capability.

The goal of the CWFC is to become, by 2017, the national authority on Canada's wood fibre resource and its innovative uses for a globally competitive Canadian forest-based industry, with the wider aim of helping maintain a healthy forest and a thriving forest sector for the well-being of all Canadians, now and in the future.

Within the first three years of its existence, the CWFC has created a strong foundation through a number of interconnected activities: putting in place a motivated team; articulating a vision and mission statement for the organization; forming a distinctive culture among employees; developing a targeted research program; and forging a strong partnership with FPIInnovations and other collaborators.

During the two fiscal years from 2009 to 2011, the CWFC will focus its resources toward two program areas: developing inventory techniques for forest characterization and understanding attributes for fibre optimization. These two areas have four output categories: tools, correlations, production and valuation.

CWFC research activities are guided by four main principles: partnerships, national scope and regional delivery, collaboration and impact. To ensure that its research results are delivered to the forest sector in a timely and cost-effective fashion, the CWFC engages in knowledge exchange, with a focus on the upstream end of the value chain. Thus, through the Knowledge Exchange Group of FPIInnovations, the CWFC will actively share its knowledge products and apply best practices in support of innovations in high demand by the forest sector.

CWFC activities will be evaluated on the basis of established performance measures and metrics, with particular attention given to sector priorities, scientific solutions and economic value. The CWFC is committed to collective leadership and team work. To create enabling conditions for enduring success, CWFC management will recognize best practices and outstanding performances.

Looking beyond the 2009–2011 period to 2017, the CWFC aspires to become the national authority on the characterization of Canadian wood fibre. The CWFC will make this aspiration a reality in two ways: by delivering a first-class program that will set new standards for wood fibre research at the national level and by contributing to the realization of the innovation agenda of the forest sector in Canada.



Introduction

Purpose of the Implementation Plan

This plan, which covers the period 2009–2011, has three objectives:

- To provide a framework for integrating the Canadian Wood Fibre Centre (CWFC) fully into the strategic directions of FPIInnovations;
- To provide direction for implementing CWFC research and knowledge exchange programs; and
- To provide guidance for reporting on the impact of CWFC activities.

This implementation plan builds on the solid foundation established by the *Canadian Wood Fibre Centre Development Plan 2006–2009* and is a companion to the *FPIInnovations Strategic Plan 2008–2010*. The plan, successfully executed, will position the CWFC toward achieving its goals of becoming the national authority on the characterization of Canadian wood fibre and a knowledge leader on the development and utilization of Canadian wood fibre for the transformation of the Canadian forest sector into an innovative, value-oriented and globally competitive sector.

Context and Background

As the centrepiece of a new forest sector innovation strategy for Canada, the three existing national forest sector research institutes – Feric, Forintek and Paprican – were consolidated in 2007 to form FPIInnovations, one of the largest forest research organizations in the world. Meanwhile, Natural Resources Canada's Canadian Forest Service (CFS) created a new research unit called the Canadian Wood Fibre Centre (CWFC). The CWFC was designed to partner closely with FPIInnovations and significantly strengthen CFS's forest-level research capability. Together, the two new organizations provide the intellectual resources required to deliver a comprehensive research program that spans the forest value chain from tree, including the stages of embryo and seed, to market.

FPIInnovations is a public-private partnership, funded and directed jointly by industry, the provinces and the federal government (Natural Resources Canada). The resources of the CWFC are managed as a branch of the CFS, but the strategic direction of the organization is provided by FPIInnovations' multi-stakeholder Board of Directors. This arrangement creates unique challenges, complexities and opportunities at both the strategic and operational levels.

The goal of the CWFC is to become the national authority on Canada's wood fibre resource and its innovative uses for a globally competitive Canadian forest-based industry, with the wider aim of helping maintain a healthy forest and a thriving forest sector for the well-being of all Canadians, now and in the future. To achieve this goal, CWFC scientists work to identify, characterize and produce high-quality fibre in order to optimize the present and future value of the forest fibre supply. Furthermore, the CWFC is striving to establish a conspicuous profile in other capacities: as an innovator in the development of forest inventory technologies, forest management planning tools and reforestation techniques; as a knowledge leader in integrating Canadian wood fibre into a profitable forest products value chain; and as a key contributor and player in the integrated national research programs of FPIInnovations.

From Initiation to Implementation

Within three years, the CWFC has created a strong foundation through a number of interconnected activities: putting in place a motivated team; articulating a vision and mission statement for the organization; forming a distinctive culture among employees; developing a targeted research program; and forging a strong partnership with FPIInnovations and other collaborators.

Box 1: Canadian Wood Fibre Centre's Vision, Mission and Core Values

Vision

Canada's wood fibre is sustainably managed to give the forest sector a strong competitive advantage in a global marketplace.

Mission

To create innovative knowledge to expand the economic opportunities for the forest sector to benefit from Canadian wood fibre.

Core Values

- The CWFC will aggressively seek opportunities to increase economic benefits in both the short and long term while also promoting forest sustainability.
- The value of the CWFC will be measured as much by the relationships it fosters as by the research solutions it generates. It will strive for excellence, innovation, creativity, inclusiveness and impact in both.
- The CWFC will develop strong linkages to other research providers so that its response to clients' needs is comprehensive.

Developing a Vision and Mission Statement for the CWFC

The CWFC has developed a vision and a mission, which are embraced by its employees and endorsed by its partners (see Box 1). The vision and mission statements speak to FPIInnovations' core goal of transforming the forest sector in Canada through innovation. Translating CWFC's vision and mission into actions and results requires dedicating resources and efforts to achieving the following three high-level objectives:

1. Undertake a national forest-level research program focused on value chain optimization;
2. Promote uptake and application of CWFC knowledge products by the Canadian forest sector; and
3. Continue to integrate and contribute to FPIInnovations' programs.

Building Strong Partnerships

From the start, the CWFC has recognized the importance of building strong partnerships in delivering solution-oriented research on priorities of the Canadian forest sector. Consultations with key stakeholders across the country have laid a solid foundation for winning firm support from partners of the provinces, industry and academia in undertaking research and knowledge exchange activities. Collaborations have brought key partners together to share data, exchange knowledge and align programs toward common objectives. Effective partnerships have enabled the CWFC to play a lead role in building a national research agenda on the development and utilization of Canadian wood fibre.

Box 2: **The Green River Project**

The Green River Thinning Trial is an outstanding example of the inherent value of long-term research and a successful collaborative approach. Established by Dr. Gordon Baskerville of the Dominion Forest Service in 1959, the Green River Research Plot has offered multiple research opportunities, including the current thinning trials. Acadian Timber (formerly Fraser Papers), the New Brunswick Department of Natural Resources, JD Irving Limited and Tembec have all contributed to ensuring that this project, undertaken by all four arms of FPInnovations – CWFC, Feric, Forintek and Paprican – is a success.

Early results of this active, collaborative effort indicate that thinning generated upstream value approaching \$3,000 per hectare through increased stumpage value and reduced harvesting and wood handling costs, without appreciably sacrificing downstream product quality and value.

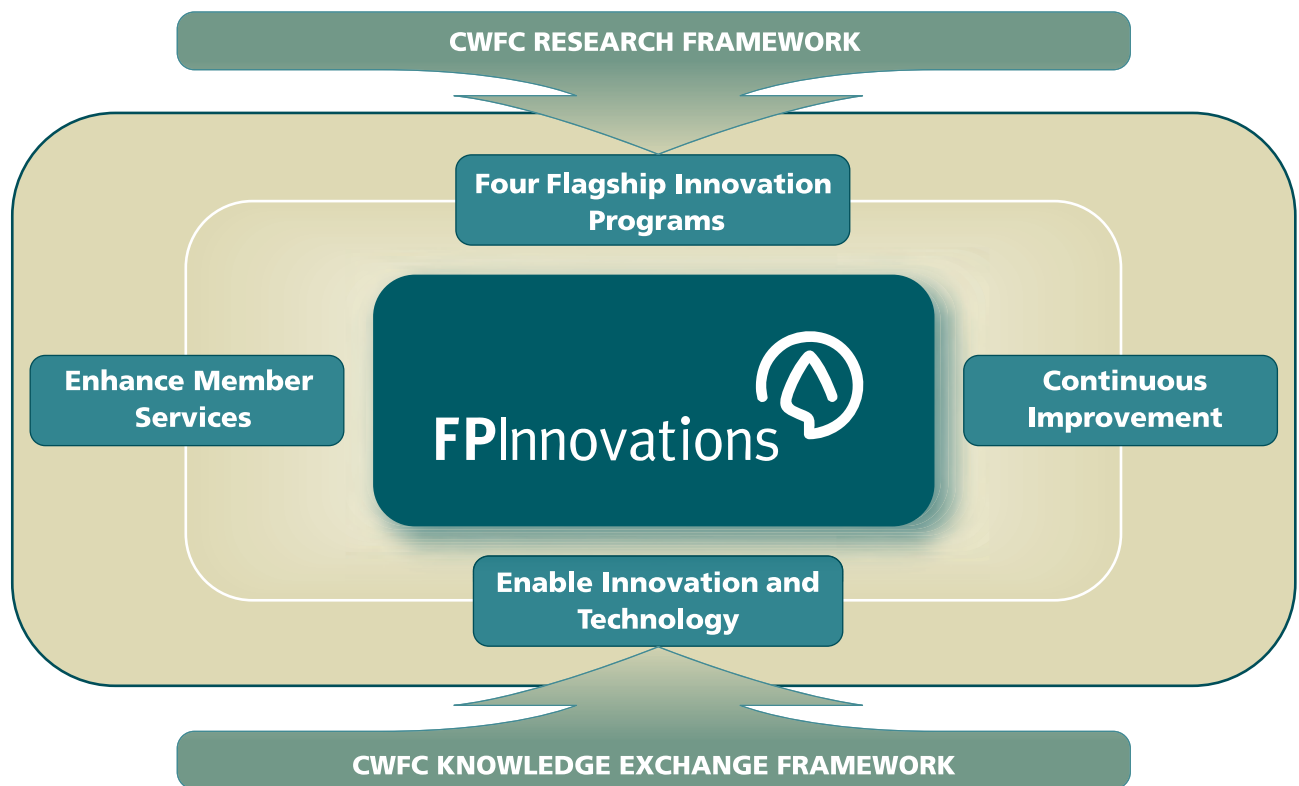


Launching a Targeted Research Program

Delivery of a national wood fibre research program is at the heart of CWFC's mandate. As FPInnovations' main upstream research group, the CWFC specializes in creating the knowledge on the fibre resource that is critical for optimizing the forest value chain in terms of management, production and utilization of new, innovative source fibre. Thus, CWFC's focused research on the upstream dovetails with FPInnovations' research at the midstream portion of the value chain to deliver product development and market access to the forest sector further downstream.

The principal objective of CWFC's research program is to maximize the economic value of Canadian wood fibre through providing industrially relevant scientific solutions at the upstream level. The CWFC also delivers on FPInnovations' strategies to enable innovative technological transformation and knowledge exchange. Figure 1 shows how CWFC's research and knowledge exchange programs feed into FPInnovations' strategies for change.

Figure 1: Linkages of CWFC's Programs with FPInnovations' Strategies for Change



Forming a Distinctive Culture

Since its formation in 2006, the CWFC has striven to create a dynamic culture that reflects the core values of excellence, innovation, creativity, inclusiveness and impact. This culture is evident in a management model that emphasizes collective leadership, the engagement of all employees in implementing CWFC's research directions, the building and expanding of partnerships, and the implementation of programs that have high potential for making a difference in value chain optimization.

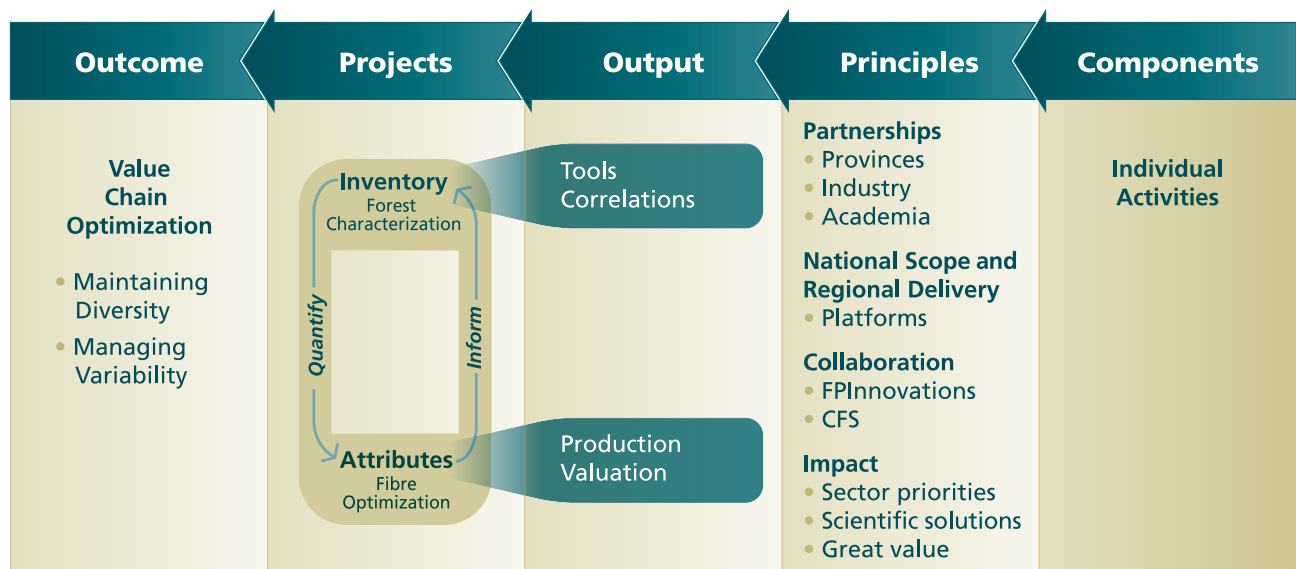


CWFC's Annual Employee Science Forum is an exercise in collective leadership and employee participation in setting the direction of the organization.

Delivering Research with a Focus on Value Chain Optimization

Value chain optimization provides integrated solutions to enable the right tree to be grown, harvested, transported and manufactured into the right products for the right market at the right price. This goal, shared by FPInnovations and the CWFC, is the guiding force of the CWFC research framework and drives research activities, as shown in Figure 2.

Figure 2: Canadian Wood Fibre Centre Research Framework



Outcome

In pursuing the outcome of value chain optimization, the CWFC research program recognizes the variability inherent in Canada's forest fibre resource. Managing that variability, so that industry may profit from a consistency of fibre quality, is important not only for competitiveness but also for sustainability. At the same time, the diversity of Canada's forests provides many values, including a fibre basket to supply a range of products for today's and tomorrow's industry. To find the important balance between the management of variability and the maintenance of diversity, the CWFC seeks to understand the location and distribution of fibre and to determine how to reproduce the most desirable fibre, while still maintaining the diversity of the forest resource base.

Projects

The CWFC's research is organized around two projects: inventory (forest characterization) and attributes (fibre optimization). These projects support one another, i.e., research into forest inventory techniques and applications helps quantify attributes, while research into attributes of wood fibre informs efforts in forest resource inventory. An example of this interconnection is the Newfoundland Initiative, which is being undertaken to integrate wood fibre considerations within the forest management inventory system to support decisions on the optimal uses of fibre in Newfoundland and Labrador.

Outputs

The CWFC's two research projects deliver four main categories of results: tools, correlations, production and valuation, defined in Box 3. All CWFC research falls into these four outputs.

Box 3: Definitions of CWFC's Output Categories

Tools: Locating Diversity

Inventory systems for spatially quantifying forest structure and resource and related fibre attributes to enable segregation and maximize recovery.

Correlations: Understanding Diversity

Techniques and methods to relate fibre attributes to tree, stand and site characteristics.

Production: Managing Variability

Techniques and methods for managing current and future forests to deliver trees and stands with specific fibre attributes.

Valuation: Optimizing Variability

Techniques and methods to optimize management decisions that maximize profit and market competitiveness.

Box 4:
**Principles for Determining
and Evaluating CWFC's Research
Activities**

Partnerships

The CWFC is committed to undertaking research in partnership with provinces, industry and academia.

National Scope and Regional Delivery

CWFC's research program pertains to forests that expand across the country, and its specific research projects are delivered with a regional focus. While projects are targeted to respond to regional needs, they also contribute to the national scope that the CWFC provides. Where appropriate, CWFC's research activities will be linked to the platforms of FPInnovations and other organizations.

Collaboration

CWFC employees undertake research in collaboration with colleagues in both FPInnovations and the CFS. The CWFC serves as a portal to research capacities and knowledge products of the parent organizations.

Impact

The CWFC seeks to make a difference in addressing industry issues and responding to sector priorities. In pursuit of the strategies of value chain optimization and enabling innovation and technology, the CWFC strives to advance scientific understanding and provide innovative solutions to challenges facing the forest sector in Canada. CWFC's research activities will be performed and evaluated rigorously to enhance the economic benefits of Canada's wood fibre.

Principles

Four main principles – partnerships, national scope and regional delivery, collaboration and impact – describe how the CWFC does business. They serve as the criteria by which individual research activities are evaluated to be approved for funding, and by which projects are reviewed annually to ensure that the CWFC is meeting its objectives. Box 4 defines these four principles, which project leaders must always consider.

Components

The last section of Figure 2 focuses on components, or individual research activities. These activities vary by region and researcher, but all of them are focused on optimizing the value chain. The next section of this plan provides key deliverables at the level of CWFC components.

CWFC's Impact – A Unique Contribution to Forest Sector Competitiveness

The CWFC Research Framework is designed to have the impact of offering a value proposition based on a clear articulation of the needs met and the benefits offered to stakeholders. The portfolio of 34 CWFC components is organized according to four outputs: Tools, Correlations, Production and Valuation. Each component is designed to impact forest sector decision making and performance. Results will positively influence management planning and operations within stakeholder organizations. This section of the Implementation Plan provides examples of how CWFC research outputs will enable stakeholders to capitalize on opportunities for value chain optimization.

Updated Portfolio of Research Themes and Components

Tools – inventory systems for spatially quantifying forest structure and related fibre attributes to enable segregation and maximize recovery.

The CWFC brings together forest inventory expertise from across the country, including provincial, industry and FPInnovations specialists, to advance the application of the latest inventory tools in forest management. The aim is to develop accurate inventory information that can be used to characterize fibre quantity and quality and hence provide enhanced information on product potential across forest landscapes. Embodied as Advanced Forest Resource Inventory Technology (AFRIT), this activity will benefit forest planners across Canada, primarily those with provincial governments, who are responsible for forecasting wood supply and allocating forest resources for harvest.

The effective application of specialized technologies – such as Individual Tree Classification (ITC) software and LiDAR-derived stand-level metrics and software tools – will provide forest planners across Canada, primarily with provincial governments and industry, with accurate, cost-effective and precise inventory information that can be used to characterize fibre quantity and quality.

Forest operations planners in Quebec will realize improved efficiency and spatial accuracy of existing forest maps through models that estimate diameter distribution, tree taper and wood properties by inventory polygon, linked to FPInterface, a decision-support tool that is part of the FPInnovations FPSuite. This new technique can be achieved without increasing inventory costs.

“The CWFC is positioned at the upstream end of the value chain, where technological innovation meets ecological knowledge to provide precise wood fibre attribute information. To this end, CWFC researchers are applying inventory tools to the characterization of wood fibre attributes at a variety of scales, from the individual tree to forest stands, thereby feeding the downstream emphasis on product diversification and market orientation. Our unique contribution is in bringing together technological and ecological knowledge to increase the precision of information at various scales to optimize the value chain.”

*– George Bruemmer,
CWFC Executive Director*

“Within the next two years, AFRIT should measurably contribute to inventory enhancements that will permit semi-automated interpretation and quantification of tree species, tree size and size distribution, site occupancy and site quality.”

– Doug Pitt, AFRIT lead

Hardwood forest managers and log buyers in eastern Canada will value forest inventory tools that predict hardwood timber quality in forest stands and thus provide decision support for determining the potential of wood products and optimizing the timber value in hardwood forests.

Research activities surrounding Lodgepole pine will test advanced inventory technologies with ground-based physical, site and fibre attributes in order to explore various value options in natural and managed stands.

Correlations – techniques and methods to relate fibre attributes to tree, stand and site characteristics.

Experts in applied forest ecology and silviculture are testing a series of hypotheses on the relationships between the crowns and the stems of trees. These relationships are thought to hold the keys to correlating tree crown information (crown length, width and volume) captured by inventory tools with fibre attribute information (distribution of increment, specific gravity, earlywood/latewood, sapwood/heartwood, and branch size and frequency), a correlation that is critical to optimization of the forest products value chain. An inventory informed by crown-fibre attribute relationships (CFAR) will benefit forest inventory designers and forest managers who use inventory information to forecast wood supply and identify forest fibre requirements to meet mill requirements.

Correlations between wood quality and site and stand conditions by ecological region will provide tools that forest managers in southern Quebec can use to better estimate the values of different white spruce fibre resources.

Mapping of fibre properties from forest inventory and environmental variables will also enable wood supply decision-makers in Newfoundland and Labrador to determine the optimal use of forest fibre.

The boreal plains mixedwood fibre initiative will enhance understanding about the relationships of crown attributes and fibre properties in white spruce and aspen mixedwoods, and thus provide essential information for supply chain analyses and fibre value simulations for both natural and managed forest stands.

Predictions of stem attributes from crown characteristics and root disease infection status will offer British Columbia forest managers information on where fibre variability occurs at various scales (ecosystem, stand and plot levels). Such information is critical for the segregation of fibre attributes in order to forecast wood supply according to precise product requirements.

Non-destructive testing techniques will provide reliable predictions of the potential of managed and unmanaged stands to supply desirable fibre attributes. Such predictions will enable industrial and government forest managers to select stands for specific wood quality characteristics, and thus to improve utilization and reduce waste.

Long-term research installations across Canada have been critical to the development of silvicultural and forest management solutions for decades. A searchable, continuously updated, Web-based database of such sites operated by the Canadian Forest Service, provinces and industry will help researchers to fully capitalize on a storehouse of valuable information for correlating inventory tools with stand and site data.

Production – techniques and methods for managing current and future forests to deliver trees and stands with specific fibre attributes.

A national network of laboratories will develop and refine somatic embryogenesis (SE) technology and support the implementation of multi-varietal forestry (MVF) across Canada. This work will provide provincial and industry forest managers with tree varieties to meet objectives such as disease resistance, genetic conservation, silvicultural performance and fibre attributes.

New genomics tools will greatly reduce the time required to select trees in tree breeding programs, which traditionally have relied on field-performance tests alone. The use of genomic information will enable tree breeders to make efficient tree selection for desirable wood and fibre attributes.

Foresters will benefit from improved science to help make decisions about silvicultural investments in young stands to achieve volume and fibre value targets at time of harvest. For example:

- Quantification of the effects of pre-commercial thinning will enable better decisions about the timing, intensity and operational requirements for treating hardwood and softwood stands and will provide more accurate predictions of product yields and value at time of harvest.

“CFAR, coupled with the Inventory Tools output, has strong potential to bring about a significant advance in forest resource inventory in Canada, namely, the inclusion of timely and accurate estimates of attributes that influence product value.”

– Art Groot, CFAR lead

"In industry, we are always talking about getting the right log to the right mill, typically in terms of size and species. Over time, the Canadian Wood Fibre Centre will broaden the definition of the right log. It will have to do with genetics, growing conditions, site, and silvicultural treatments. We're putting in place the basis for a much expanded definition of the right log to the right mill."

– Ken Higginbotham, Co-Chair of the Divisional Steering Committee for the CWFC

- Density management decision support tools will enable forest managers to evaluate the consequences of various planting and thinning regimes using performance measures such as merchantable volumetric productivity, knot size, wood density, recoverable products and associated market values.
- Increased knowledge of the risks of wind-thrown trees and enhanced fibre production will improve tactics and provide guidelines for partial harvesting systems in softwood and mixedwood stands across Canada.
- A root disease risk assessment model will help to identify stands for priority queuing in wood supply and harvest planning to minimize fibre losses due to root disease. Silviculturists will have a sound basis for modifying plantation treatments to minimize the risk of root disease development.

Valuation – techniques and methods to optimize management decisions that maximize profit and market competitiveness.

Understanding the factors that optimize the forest products value chain will guide the direction of research activities. Together with FPInnovations' collaborators, the CWFC will increase knowledge of innovative ways to add value to forest products and confer a competitive advantage to better align project design with industrial needs and sector priorities.

Expanded use of forest biomass offers opportunities for improved forest management as well as a source of raw material for new business ventures. A national woody biomass residue inventory is being developed, and sustainable biomass harvesting and end uses will be demonstrated at hardwood and mixedwood sites in Ontario and the Prairies. Meanwhile, a national network of sites to increase value options for short-rotation woody crops is serving to develop technical practices and management regimes for biomass production and recovery and options for optimizing the value of short-rotation wood crop cultivation.

A decision support tool will aid forest managers in optimizing the value chain for hardwood and mixedwood management in Quebec. This model will guide decisions about partial and selective harvesting techniques that balance profitability and sustainability over the long term.

Knowledge Exchange Helps Put Research into Practice

In addition to its research activities themselves, the CWFC engages in knowledge exchange to ensure that the results of this research are delivered to the forest sector in a timely fashion. CWFC's knowledge exchange efforts emphasize collaborative problem-solving through the sharing of scientific, technological and organizational knowledge to support mutual learning and knowledge uptake by the forest sector.

Through the Knowledge Exchange Group of FPInnovations, the CWFC will promote the uptake and application of its knowledge products and tools by the Canadian forest sector in a cost-effective way. With a focus on the upstream end of the value chain, the CWFC will actively share and apply best practices and coordinate national activities in support of innovations in high demand by the forest sector. The end result is that stakeholder organizations will realize the added value offered by new innovations to increase their competitiveness and profitability.

Established regional knowledge transfer and extension organizations are essential to the adoption of innovations and technology. The FPInnovations Knowledge Exchange Group (KE Group) comprises CWFC and FPInnovations forestry extension specialists from across the country, working closely with regional partner organizations. The results are a close connection between researchers and practitioners and a formalized mechanism for bringing innovations to the working level in forest management units across Canada.

The KE Group facilitates ongoing regional consultations with FPInnovations members to identify critical needs for innovation in the forest sector. At the same time, the KE Group supports the development of products and services to respond to member needs and offer S&T solutions. The knowledge exchange function is integral to ensuring that research has a practical impact. In this role, the KE Group works closely with research directors and individual researchers to plan for and deliver this impact to stakeholders.



Experts of the FPInnovations Knowledge Exchange Group working together to promote the uptake and application of research results and knowledge products.
Photo courtesy of Canadian Forest Service, Natural Resources Canada



Red pine forest and logs in Ontario, Canada.
Photo courtesy of Canadian Wood Fibre Centre,
Canadian Forest Service, Natural Resources Canada.

Measures of Success

The CWFC will be successful when it delivers on the promise of transformation and innovation in the Canadian forest sector. To measure this success, rigorous review processes will be used to evaluate the degree to which CWFC's objectives are achieved.

CWFC's projects will be evaluated in the lexicon of the parent organization (the CFS and FPInnovations), using each organization's prevailing evaluation procedures and tools. Performance measures will be used to track milestones and report on impact during implementation. Meanwhile, an annual report card to the Divisional Steering Committee of the CWFC will report on the extent to which objectives and deliverables have been accomplished. Internally, projects will be measured against established principles and metrics, with particular attention given to sector priorities, scientific solutions and economic value.

Table 1 presents a framework for operationalizing the matrix of key performance indicators and metrics that the CWFC will follow in its program delivery, execution of specific research activities, reporting on progress, deliverables and milestones, and evaluation of program impact and effectiveness.

The CWFC values creativity, innovation, collective leadership and team work. To ensure that best practices and outstanding performances are recognized, CWFC management will work with department and sector recognition programs to make certain that both the ways in which it undertakes its programs and the content of the work that it conducts are adequately acknowledged.

Further, formal appraisals, evaluations and audits will be conducted to examine gaps and areas where improvement is required. These measures will create enabling conditions to ensure enduring success for the CWFC and position the organization to meet new challenges in the future.

During the current planning cycle, the CWFC is firmly committed to delivering a clearly articulated research program that focuses on enhancing our understanding about the ways of developing and utilizing Canada's wood fibre. The CWFC will continue to employ its knowledge exchange expertise and resources for the timely

Table 1: Matrix of Key Performance Indicators for the CWFC

Program planning	
Program objective	Value chain optimization: - Maintaining diversity - Managing variability
Research themes	Inventory: Forest characterization Attributes: Fibre optimization
Output categories	Inventory systems and tools Correlations techniques and methods Fibre production techniques and methods Valuation techniques and methods
Project initiation and implementation	
Preparation of research proposals	Screening against established principles: - Partnerships - Scope - Impact
Approval process	Scientific review Management approval
Project execution	CWFC project teams working in collaboration with partners CWFC management system monitoring project implementation and tracking progress
Performance measures	
Delivery mechanisms	Compliance with CFS project management requirements, e.g., the PROMIS tool
Deliverables	Systematic management of project activities, e.g., routine tracking of progress and milestones
Evaluation	
Reporting mechanism	Reporting on results, impact and uptake, e.g., periodic report cards presented to the Divisional Steering Committee Review of the effectiveness of program delivery Evaluation of overall program effectiveness
Consultations and learning	Conducting proactive consultations with partners and stakeholders Drawing lessons learned for improvement

uptake of its research results and knowledge products. While actively sharing its research findings with various clients, the CWFC is seeking to have a significant impact on the transformation of the forest sector in Canada through delivering upstream-focused knowledge products that are of direct relevance to forest value chain optimization and industry competitiveness.

Looking beyond the 2009–2011 period, the CWFC is aspiring to become the national authority by 2017 on the knowledge, development and utilization of Canadian wood fibre. Achieving this aspiration will require concerted efforts on several key fronts: expanding relationships with key partners of the provinces, industry and academia; focusing research activities on sector priorities for innovative solutions; and becoming a leader in catalyzing change in the Canadian forest sector. The goal of the CWFC is to deliver a first-class program that sets new standards for wood fibre research at the national level and that contributes to the realization of the innovation agenda of the forest sector in Canada.