



NATURAL RESOURCES CANADA - INVENTIVE BY NATURE

Innovation in the Canadian Forest Sector: A Path Forward

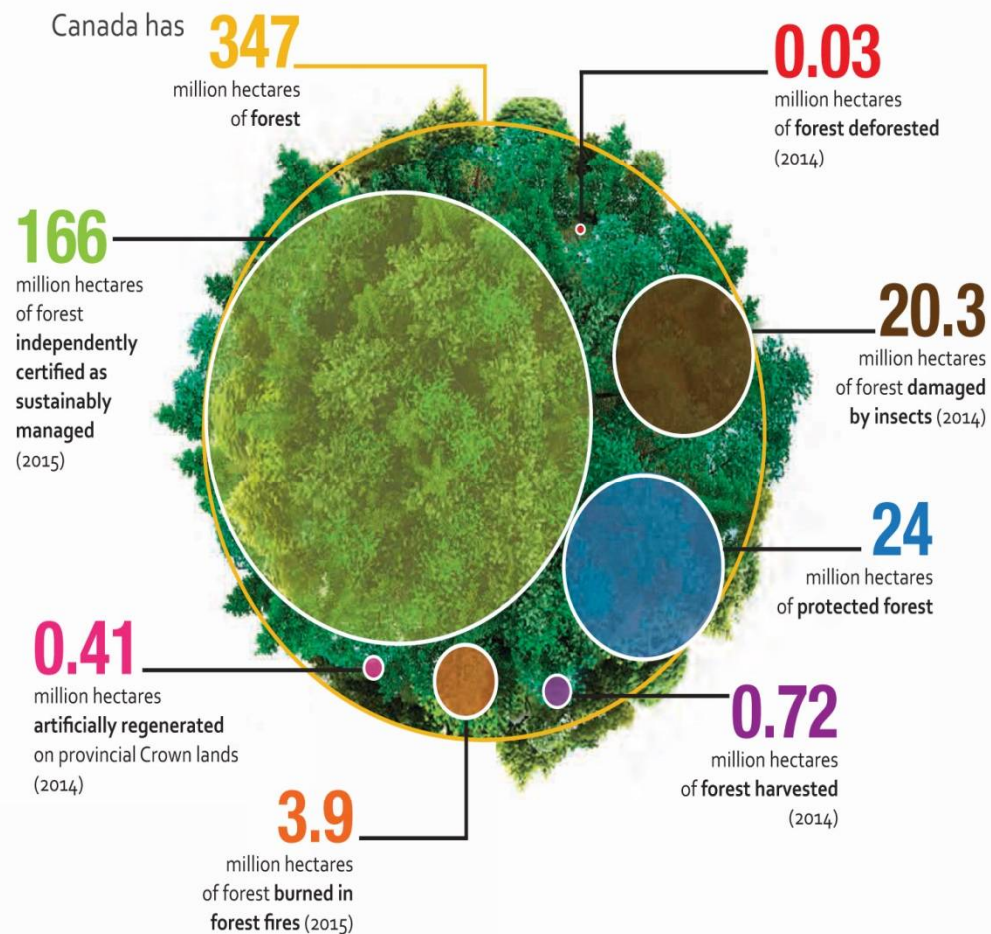


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Canada's forests by the numbers



Canada's forests by the numbers



CFS Vision: An innovative, globally competitive forest sector rooted in sustainable forests creating prosperity for Canadians.



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An active innovation ecosystem

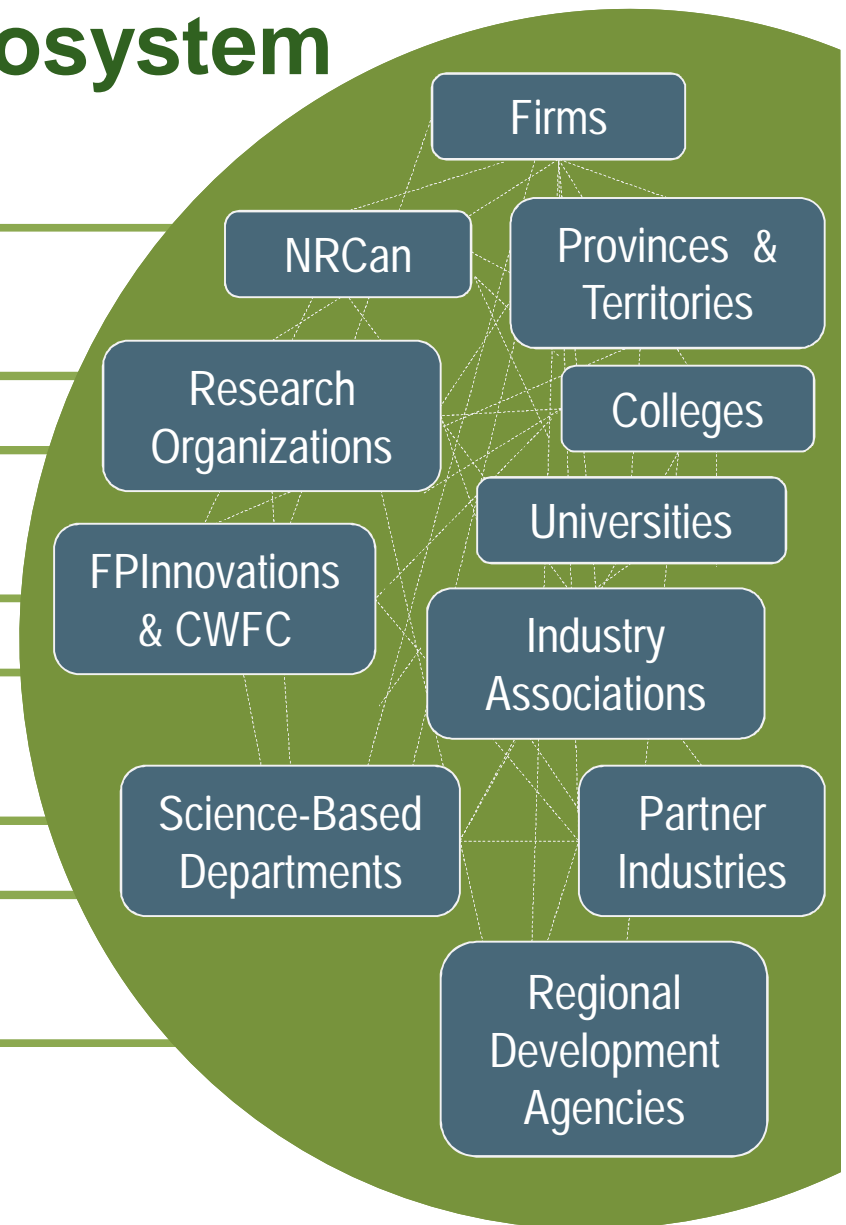
Elements of Innovation

Aligned stakeholders

Capitalize on strengths

Realize opportunities

Evolution and continuity



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The Canadian Forest Service

What is driving the federal government?

Climate change: *significant opportunity for Canada's forests and forest products in GHG mitigation*

Softwood lumber dispute: *threat of punitive countervailing and anti-dumping duties*

Bioeconomy: *catalyze the transition to a clean growth economy*

CFS – A Partner in Forest Sector Advancement!

Thought
leader

Convenor

Funder

Innovator

Thought leader & convenor

- The Bio-Pathways Initiative (2010/2011)
 - Identify transformational strategies and evaluate potential industry roadmaps
 - Performed jointly by the Forest Products Association of Canada, FPInnovations and NRCan
- Canadian Council of Forest Ministers
 - Promote cooperation between federal, provincial, and territorial governments on forestry matters
 - June 2016, CCFM Innovation Action Plan
- Canadian Wood Fibre Centre
 - Provide wood fibre research expertise to align federal priorities with the Canadian forest sector's research needs
 - Develop solutions to challenges faced by Canada's forest sector industries

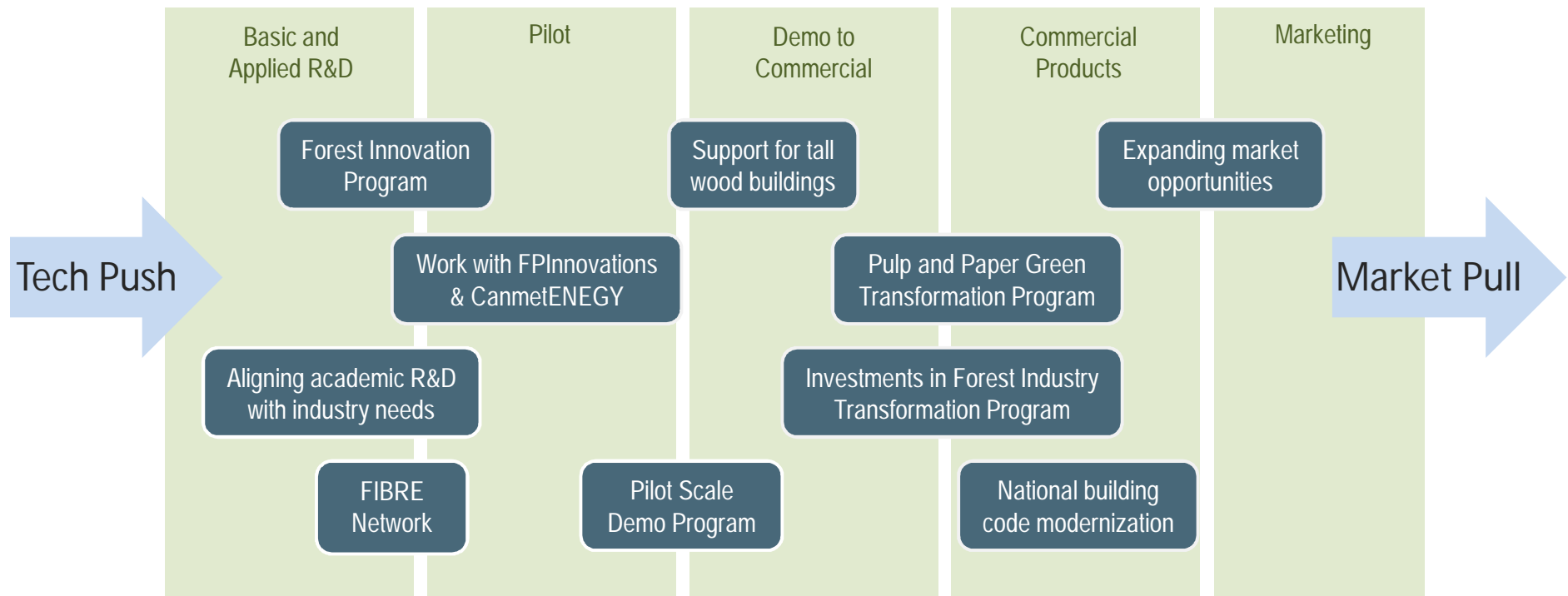


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Funding world class innovation programming



Federal investments in support of industry transformation total \$2.1 billion since 2007

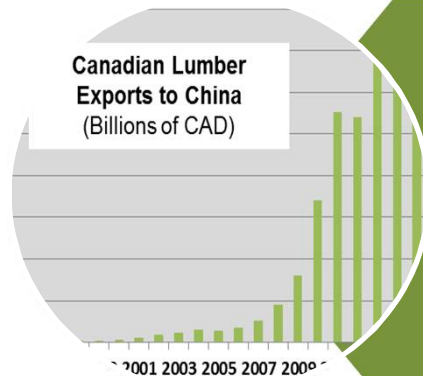


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Funding market expansion programming



The Government of Canada is a critical actor in supporting industry competitiveness:

- Diversifying markets overseas
- Growing the North American wood market
- Ensuring market access for emerging products (e.g., bioproducts)
- Addressing barriers to trade



Exciting new developments: Tall wood building demonstrations, mass timber low-carbon, renewable construction material



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Science innovator for environmental & economic results

Provides information to support and enhance the sustainability of Canada's forests and forest sector.

Example areas of focus:

- Climate change adaptation
- Fire modelling and prediction
- Invasive and native pests
- Enhanced Forest Inventory (LiDAR)
- Canadian Boreal Forest Agreement
- Science-based sustainability indicators
- State of Canada's Forests



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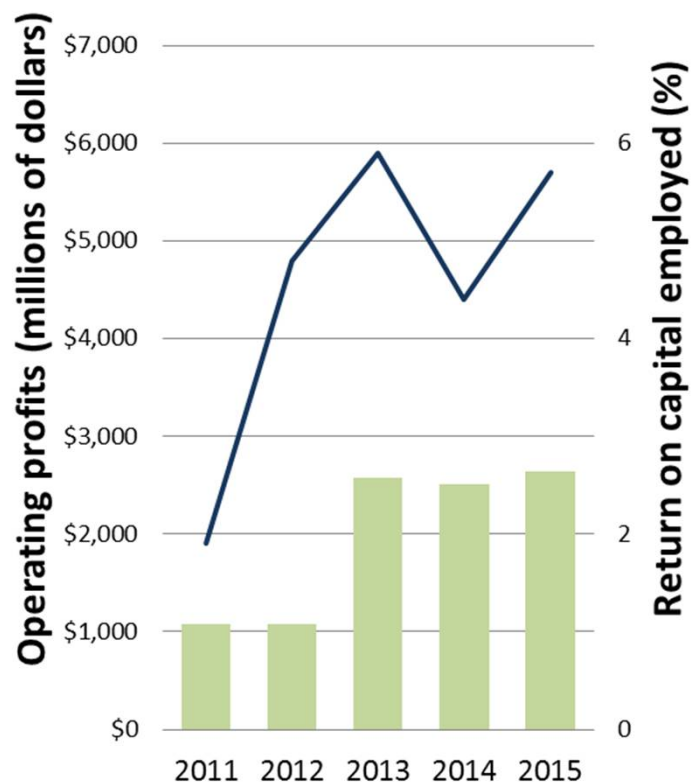
Forest-based Indigenous economic development

Builds Indigenous communities' capacities to harness forest-based economic opportunities

- Investment in capacity building, strategic planning and business development needed for communities to take advantage of opportunities



Today



Kenora Declaration on Forest Innovation

1. **COLLABORATING** to accelerate and enhance sustainable, market-driven investments to commercialize process, product and market innovation, with a focus on environmental excellence;
2. **ENGAGING** prospective partners and new entrants in non-traditional industries and academic fields; making concerted efforts to facilitate connections with the forest sector; and,
3. **MOBILIZING** the best talent and technologies to address the future needs of the forest sector.



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THE GLOBE AND MAIL

ENVIRONMENT

Final agreement reached to protect B.C.'s Great Bear Rainforest

JUSTINE HUNTER

BELLA BELLA, B.C. — The Globe and Mail
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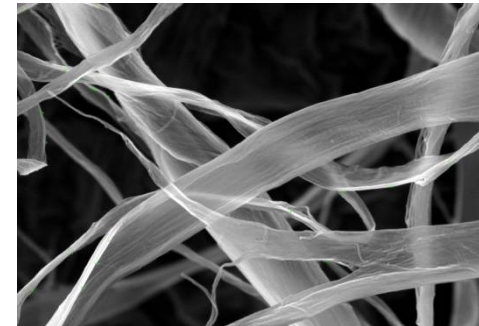
Innovation has been successful

Projects have strong returns

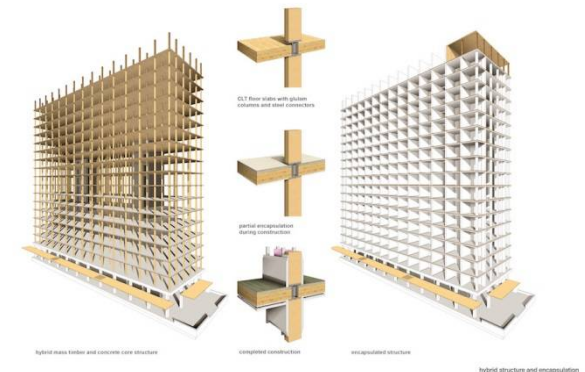
- ❖ Dozens of projects with ROI's > 20%

Examples of success include:

- ❖ **Lignin:** FPInnovations → TBay pilot → WestFraser's plant & plywood...
- ❖ **Cellulose Fibrils:** from lab to new products in less than four years...
- ❖ **Advanced Building Systems:** building on CLT, wood panels and engineered beams with tall wood buildings and building codes



Cellulose Fibrils



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A renewed approach to enhance innovation

The 3 pillars for advancing innovation, endorsed by the CCFM

INNOVATION ACTION PLAN:
2016–2020

Engaging: Aligning priorities and internalizing innovation to move beyond technology (e.g., new business models, new customers)

Mobilization: Need for action is now - customizing different approaches for different players (e.g., SMEs vs larger players)

Collaboration: working with new stakeholders, including non-traditional actors

Programming and providing solutions for the forest sector to support the greater bioeconomy, in response to short- and long-term global challenges.



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Canadian Council
of Forest
Ministers



Conseil canadien
des ministres
des forêts

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Thank you!

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