KE in the Canadian Wood Fibre Centre: National Scope with Regional Delivery

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Outline:

- Introduction to the Canadian Forest Service
- What is the Canadian Wood Fibre Centre
- Why is our Knowledge Exchange program successful?
- Case study: Enhanced Forest Inventory
- Petawawa Research Forest
The Canadian Forest Service of Natural Resources Canada

- The Canadian Forest Service provides science and policy expertise and advice on national forest sector issues
- ~600 staff, 7 offices, two research forests

- The Canadian Forest Service does not manage forests, that is a provincial responsibility
Canadian Forests

- 9% of the world’s forests (24% of the boreal)
- >46% of Canada’s forest is certified
- 94% of Canada’s forests is on public land
- 4x more forest is lost due to insects compared to fire
- 500M trees planted annually

Dominant genus
- Spruces (Picea)
- Firs (Abies)
- Cedars (Thuja)
- Pines (Pinus)
- Hemlocks (Tsuga)
- Douglas-fir (Pseudotsuga)
- Poplars (Populus)
- Maples (Acer)
- Birches (Betula)
- Other or unknown genus
The CWFC – Innovation Rooted in Collaboration

- Established in 2006, ~55 staff
- Canadian Forest Service employees, but taking research direction from FPInnovations
- Initial the fourth pillar to the newly established FPInnovations
- Focuses on upstream research
- Strong belief in collaboration

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Research focus of the Canadian Wood Fibre Centre

- Genomics
- Hardwood optimization
- Enhanced forest inventory
- Biomass
- Short-rotation woody crops
- Silviculture improvement
Knowledge Exchange within the CWFC

- Recognized and supported from the beginning
- Partnerships are crucial
- Using proven techniques
- Right tools at the right time
KE techniques used at the CWFC

- Evaluate depth and breadth: to identify suitable markets and end-users
- Push – Pull – Drag
- Flexibility
KE Progression

- **Discovery/Research**
- **Raising Awareness**: pass along knowledge
- **Generating Interest**: persuade potential users
- **Support for Decision**: help them estimate the situation
- **Support for Adopters**: instruct how to do it
Partnerships
KE products used by the Canadian Wood Fibre Centre

- Special edition of a practitioner journal *The Forestry Chronicle*
- Article in a trade magazine *Logging and Sawmilling*
- Technical Note *Fibre Facts*
- CWFC Information Reports
- Electronic Lecture
- Short one or two day workshops
- Field days/tours
- Virtual tours
- Best Practices Guides
- Tool kits

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Case study: Enhanced Forest Inventory (EFI)

LiDAR – Light Detection And Ranging

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Enhanced Forest Inventory did not sell itself

- Challenges in uptake of EFI, despite documented benefits:
  - J.D. Irving called it a ‘Game Changer’
  - Tembec realized significant savings through better road building and improved logging and harvesting data

But how to overcome the perception it’s too expensive?
Canadian Wood Fibre Centre Knowledge Exchange team in action

- Adopted a partnered plan in 2011 to
  - Raise Awareness
  - Generate Interest
  - Support Decision to Adopt

- Worked with industrial partners in four regions to create flagship sites

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CWFC in action

- Presentations at workshops, forums, trade shows, seminars, conferences → Raising awareness
- Increased emphasis on case studies and workshops → Generate Interest
- More audience specific approach → Decision to adopt
Measures of success

- By early 2015: Enhanced Forest Inventory created and used on 5M ha in Canada
- LiDAR had been collected for 25-30M ha
- 50M ha in planning stage
- Estimated by end of 2016: half of Canada’s managed forest will either have, getting, or planning EFI
Petawawa Research Forest

- Canada’s oldest research forest
  Established: 1918
- > 2000 research sites
- 10,000 ha
Research themes at the Petawawa Research Forest

- Silviculture
- Growth and Yield
- Genetics
- Fire
- Biomass
- Enhanced Forest Inventory
Knowledge Exchange at the Petawawa Research Forest

- **Tours:**
  - ~ 17/year
  - ~ 400/people

- **Presentations:**
  - ~ 15/year
  - ~ 600 people

- **Publications**
Thank you!

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