



SHAPING TOMORROW'S FOREST INDUSTRY THROUGH R&D

**INTERESTED IN TAPPING INTO FEDERAL R&D DOLLARS?
WANT TO WORK WITH SOME OF CANADA'S TOP FOREST
SCIENTISTS AND ENGINEERS ON A SPECIALIZED RESEARCH
PROJECT? NEED A PARTNER TO SHARE THE COST
AND RISK?**

Talk to the Natural Sciences and Engineering Research Council (NSERC).

NSERC recognizes the vital importance of forests and the forest industry. Through NSERC funding, top scientists and engineers at Canadian universities are discovering innovative ways to address the big questions currently faced by the forest sector.

To bring that specialized knowledge to industry, NSERC invests more than \$865 million each year to support university research and training, as well as university-industry R&D collaboration. NSERC partnership programs focus on research with the greatest potential of boosting industry success. More than 1,000 companies have already taken advantage of NSERC programs, and that number is increasing.

By partnering with university researchers through NSERC, your organization can stretch its research dollars, reduce its investment risk, and explore breakthrough technologies while gaining access to highly skilled future employees.

We've seen some very successful collaborations already:

- At the University of Toronto, Dr. Honghi Tran and his nine collaborators are studying the kraft process to provide pulp and paper mills with tools and guidelines for reducing energy consumption, improving energy and chemical recovery, and increasing productivity while reducing environmental impacts. NSERC is providing a \$1.36 million Collaborative Research and Development Grant and the nine industrial sponsors are pledging \$1.45 million as well as in-kind contributions estimated at \$1.48 million.
- Funded by an NSERC Strategic Project Grant, Dr. Jack Saddler at the University of British Columbia has taken up the challenge of converting wood material to biofuel ethanol. His research team will assess the techno-economic viability of a softwood-to-ethanol process with a view to contributing to the sustainable development of both renewable energy and Canada's forests. NSERC and BIOCAP Canada have each committed \$227,750 to this research while Lignol Innovations Corp., Tembec, and Natural Resources Canada have pledged over \$365,000 of in-kind support.





- With support from the NSERC Industrial Research Chairs (IRC) program, Dr. Yves Bergeron, an IRC chairholder at Université du Québec en Abitibi-Témiscamingue and Université du Québec à Montréal, is studying the history of fire and insect infestations in the boreal forest. His group is developing and testing novel forestry practices that imitate these natural disturbances and help to maintain the forest's natural structure and biodiversity. NSERC is providing more than \$1 million while two government and eight industry partners are providing more than \$2 million.
- Thanks to a \$7.5 million Strategic Network Grant from NSERC and close to \$3 million from industry, Dr. Robert Pelton of McMaster University has launched SENTINEL, the Canadian Network for the Development and Use of Bioactive Paper. SENTINEL, a consortium of 24 researchers and 11 government and industry partners, will integrate research on paper and biology toward developing bioactive papers that will detect, capture, and deactivate water and airborne pathogens including bacteria and viruses.

- With support from a Research Partnership Agreement grant, a team of Quebec researchers led by Dr. Daniel Kneeshaw is developing forest management scenarios that are appropriate for Aboriginal landowners and forest managers. Seven forestry companies and the Band Council of Kitcisakik are collaborating with the researchers to create forest management models that account for sustainable development, revised provincial regulations, forest certification systems, and the implications of conducting forest operations in Aboriginal territories. NSERC, the Social Sciences and Humanities Research Council, and the Canadian Forest Service have jointly contributed \$337,700 to this seminal research.
- FOR@C, a consortium of 14 industry, government, and academic organizations led by Dr. Sophie D'Amours at Université Laval, is developing new business models to increase profitability for Canadian forest products companies. The research focuses on e-business as a means to accelerate and manage the flow of information and material in a business-to-business context. This collaborative activity is being supported through a \$3.4 million grant from NSERC. Industry and government partners are contributing \$3.1 million in cash and \$275,000 in kind.



HOW CAN THE FOREST INDUSTRY

- develop new value-added forest products?
- increase fibre yield from harvestable forested land?
- reduce losses caused by pests without creating environmental impacts?
- make the kraft process more efficient yet less damaging to the environment?
- reduce manufacturing costs while improving product quality?

How? Through NSERC R&D partnership programs.



NSERC PROGRAMS MEET INDUSTRY NEEDS

Each year, NSERC supports close to 22,000 university students and postdoctoral fellows, as well as the research of more than 10,000 professors. Several of our programs are designed specifically to bring bright young researchers into industry where they will apply their problem-solving skills and research capabilities to real industry challenges.

To find out how your company can tap into NSERC's R&D partnership programs, contact Robert Therrien at 613-996-5924 or robert.therrien@nserc.ca. For program details, please visit our Web site at www.nserc.gc.ca, and select **For Industry**.

>> Natural Sciences and Engineering Research Council

350 Albert Street
Ottawa, ON K1A 1H5

FOREST INDUSTRY PARTNERS

Abitibi-Consolidated Inc. • Advanced Fiber Technologies Inc. • Ainsworth Lumber Co. Ltd. • Alberta-Pacific Forest Industries (AL-Pac) • Alberta Plywood • Bowater Canada Forest Products • Canadian Forest Products • Commonwealth Plywood • Daishowa-Marubeni International Ltd. • Domtar Inc. • Footner Forest Products Ltd. • Forest Ecosystem Science Co-op Inc. • Forest Engineering Research Institute of Canada (FERIC) • Forintek Canada Corp. • Irving Pulp and Paper Ltd. • Lignol Innovations Corp. • Louisiana-Pacific Canada Ltd. • Matériaux Blanchet • Millar Western Forest Products Ltd. • Norbord Industries Inc. • Produits Forestiers Donahue Inc. • Pulp and Paper Research Institute of Canada (Paprican) • Scierie Gallichan (Kruger Subsidiary) • Scierie Landrienne Inc. • SENCO Sawmill • Tembec Inc. • Timber Specialties Co. • TimberWest Forest Corp. • Weyerhaeuser Canada Ltd.