

ABSTRACT

The innovation system of the Canadian Forest Sector: A study of transformation

by Teri Jane Bryant* , Ilan Vertinsky** and Victor Cui **

*The University of Calgary **The University of British Columbia

The global forest product industry is a prime example of an industrial sector where the “call for innovation has strengthened as profit margins have tapered and employment declined” (Hanson et al., 2000). Recognition that innovation is essential, however, has not been matched by private investment in it. Indeed corporate R&D in the forest system has declined globally as a result of cost cutting.

The forest sector in Canada, which is of significant global importance, is facing an unprecedented crisis. There is a growing consensus among policy makers and industry leaders that this crisis is not merely a reflection of a cyclical economic downturn but a manifestation of fundamental changes in the economic, social and ecological environments. Responses to this challenge of sectoral transformation require a commitment to a significant path of innovation.

This paper highlights the results of a comprehensive study funded by the Government of Canada to assess the state of technological innovation in the forest product sector, the options for future technology innovation, and the role that public policy can play in facilitating the required transformation.

Given the multifaceted nature of innovation systems and processes we have employed multiple methodologies in our enquiry. We have examined the prevailing modes of innovation by companies, including collaboration patterns, using the unique data base produced by Statistics Canada - The Innovation Surveys of Manufacturing (1999 and 2005). These surveys, based on OECD sanctioned designs, provide a broader view of innovation processes in the industry that go beyond the ones reflected in patent data. We have augmented the data from the surveys using extensive analysis of industry and government reports as well as interviews with innovation leaders. We have examined the economic outcomes of past innovation achievements in the Canadian forest product sector and assessed the impacts on the industry and its international competitors. We have also examined the effects of various government programs aimed at facilitating innovation in industry as well as direct innovation activities in government, joint government-industry laboratories and industry R&D cooperatives. We then proceeded to explore the options which are now being considered both in Canada and elsewhere to pursue innovations which might help transform the sector while leading it to a sustainable path of development.

The paper concludes with recommendations identifying some of the weaknesses in the sectoral innovation system and provides suggestions for 1) the development of new sectoral public innovation policies, and 2) the improvement of the data collection framework to support the study and monitoring of the performance of the forest innovation system in Canada.

