

# The StarPhoenix

## Resources sector quietly innovative

By David Mitchell, Julie Cafley - July 5, 2012

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When you think about the natural resources sector in Canada, what's top of mind? Typical answers are hewers of wood and drawers of water, and extractors and exporters of primary resources.

We don't think about the industries that have built our country as hotbeds of innovation, even though they remain the backbone of Canada's economy. Little do we know how much the natural resources sector has evolved to become a major source of innovation. Its industries have been transformed with the use of advanced technologies and processes, and through exercising social and environmental responsibility.

The problem is that it's a very well-kept secret.

A recently published Public Policy Forum report, *Towards a More Innovative Future: Insights from Canada's Natural Resources Sector*, sheds some light on this sector's vast potential and its challenges. The report synthesizes the results of a national conference and six regional roundtable discussions with leaders from the mining, forestry, energy, agriculture and fishery sectors along with senior government officials, scientists and academics involved in natural resources sector policy, regulation, and research and development.

We conclude that the sector has a key role to play in driving future growth in the Canadian economy and in maintaining, or even furthering Canada's global competitive position. Moreover, as industry leaders know, there is an imperative to innovate in their sector because the stakes are higher - not just for sustainable economic growth but for solutions to the very real challenges facing humanity and the planet.

To reposition itself as a driver of innovation, the resources sector needs more collaboration among its industries, share information across the sector and engage Canadians in a renewed dialogue about the future. For the most part, collaboration is happening within specific industries such as forestry and mining, but is generally restricted to identifying and promoting best practices and sharing some of the risk associated with research and development (e.g. geo-mapping for energy and minerals program).

Roundtable participants suggested using forums to connect leaders across the resources sector to promote greater collaboration and information sharing. They also saw cross-sector collaboration as a means to share best practices across provincial jurisdictions in areas such as worker safety and training).

As participants stressed, resource development is easier when local communities have a stake in it and realize direct and lasting social and economic benefits. They also indicated that high functioning education systems and flexible, locally based education and training opportunities are needed to ensure competitiveness.

They suggested reaching out to innovators early by promoting science and engineering in the K-12 education system and exploring novel and innovative arrangements in the postsecondary education system in partnership with public and academic institutions.

Improving communications linkages in the North, as well as roads and ports, and supporting the fuel and transportation needs of rural and remote regions are crucial to build the capacity required to support expanding natural resource industry activity, and strengthen these communities.

Yet, the natural resources sector recognizes that it faces a range of environmental challenges and must engage in a significant public dialogue on these issues. It needs to embrace innovation more widely, continue reducing operating costs and minimizing environmental impacts through better energy, water and waste management; adapting technologies used in other sectors to enable the exploration of potential mineral reserves with less environmental impact, and finding ways to minimize the impacts of extractive activities.

As prominent scientist Dr. Richard Hawkins recently suggested: "We need to use our natural resources as a platform, as a value-added industry - We need to begin a serious dialogue and come up with some knowledge to support the role of innovation in the resource sector."

We agree with this statement and believe that Canada's abundant natural resources are and continue to be a significant comparative advantage, one that can contribute to positioning Canada as an innovation nation.

(Our report is available at [www.ppforum.ca](http://www.ppforum.ca))