



Press Release June 29, 2012

Natural Resource Industries: Canada's Innovation Success Story

The Centre for the Study of Living Standards released today a major study entitled “Innovation in Canadian Natural Resource Industries: A Systems Based Analysis of Performance, Policy and Emerging Issues”. The report is posted at <http://www.csls.ca/reports/csls2012-06.pdf>.

The objective of this report, prepared for Natural Resources Canada, is to broaden and deepen our understanding of innovation in Canadian natural resource industries, and to identify strengths and weaknesses of the sector in terms of innovative capacity. Key highlights of the study are found below.

- The key conclusion of the report is that the overall innovation performance of the Canadian natural resources sector is strong and has improved in recent years. The strongest piece of evidence to corroborate this finding is the expert assessment of the science and technology of Canadian industries conducted by the Council of Canadian Academies, which found that out of 197 sub-areas of science and technology the top ten industries were all natural resource industries, with the Alberta oil sands ranking number one.
- The implication of this overall positive assessment of the innovative performance of the natural resources sector (or at least the mining and energy parts of the sector) is that Canada’s system of innovation for natural resource industries is working quite well. The sector’s innovation performance is grounded on a diverse set of public support programs, a novel stock of technologies, and the consistent collaborative efforts of firms.
- The innovation performance of Canadian natural resource industries is strong as measured by most indicators. For example, natural resource industries in general outperform the Canadian business sector in terms of productivity levels and growth rates, M&E intensity, adoption of new technologies, collaboration efforts between firms, and R&D personnel. In fact, R&D personnel intensity in the natural resource sector was

almost double that of the total economy in 2008 (16.2. vs. 9.3 R&D personnel per thousand workers, respectively).

- Despite the overall above-average innovation performance of the Canadian natural resources sector, there is still room for improvement. In particular, the natural resources sector performed poorly in terms of: 1) R&D intensity; 2) labour force skills; and 3) in the case of the oil and gas industry, labour productivity growth. While part of the poor performance in these indicators can be attributed to structural factors specific to natural resources industries, they also reflect areas that could be improved.
- In the case of R&D intensity, for example, part of the below-average performance can be attributed to two structural characteristics of the natural resources sector as a whole: 1) process innovation tends to be more important in natural resources industries than product innovation; 2) innovation in natural resources industries frequently takes the form of the introduction of new machinery and equipment which is produced by other industries. However, the fact that R&D intensity in some of the industries in the natural resources sector has fallen over the past twenty years is a source of concern.

For further information, please contact:

Andrew Sharpe
Executive Director
Centre for the Study of Living Standards
710-151 Slater Street
Ottawa, Ontario K1P 5H3
[613-233-8891](tel:613-233-8891)
Andrew.sharpe@csls.ca

The Centre for the Study of Living Standards (CSLS) is a national, independent, Ottawa-based not-for-profit research organization. Its primary objective is to contribute to a better understanding of trends and determinants of productivity, living standards, and economic well-being in Canada through research.