

**Media Release – For Immediate Release**

**Attention Business/Technology/Policy/Science Reporters and Editors:**

# **Nanotechnology a potential boon for Canada**

***Nanotechnology research, development and use can be enhanced through regulation and policy which protects human health and our environment, says CIELAP***

(Toronto, June 18, 2007) The Canadian Institute of Environmental Law and Policy (CIELAP) has just released an important new document discussing a policy framework for nanotechnology in Canada. Nanotechnology is the ability to measure, see, manipulate and manufacture materials at the scale of between 1 and 100 nanometers (nm). One nanometer is a billionth of a meter, which is about a hundred thousand times smaller than the cross section width of a human hair, and a thousand times smaller than a red blood cell.

“The development and use of nanotechnology holds enormous potential for Canadian businesses,” says Anne Mitchell, CIELAP Executive Director, “but only if a framework exists to encourage its safe development and use, protecting Canadians and our environment. We believe that early adoption of nanotechnology standards will make Canada more competitive in this growing field.”

While most people are unaware of nanotechnology, it could be the single most important technological advance of this new century. In 2006 alone, \$12.4 billion was invested in nanotechnology research and development worldwide, and over \$50 billion worth of nano-enabled products were sold<sup>1</sup>.

What makes the technology so valuable is that materials at this scale can exhibit novel properties that are different from the same substance’s properties at the macro or even micro scales. Colour, conductivity, reactivity, and a host of other properties alter in surprising and potentially useful ways.

Nanotechnology is currently used in hundreds of products, including consumer products such as clothing, cosmetics, bedding, jewelry, sporting goods, nutritional and personal care items, and it holds tremendous potential for breakthroughs in medicine, in the production of clean water and energy, and in computers and electronics.

While the environmental and health effects of nanomaterials are largely unknown, a number of studies have found that nanoscale particles are substantially more toxic and reactive biologically than larger particles of the same material.

In CIELAP’s report, available at [http://cielap.org/pub/pub\\_NanoFramework.html](http://cielap.org/pub/pub_NanoFramework.html), author Susan Holtz describes twelve key elements which she says must be addressed in any Canadian policy framework for nanotechnology. Some of them include public education and engagement; science and research support; commercialization; social and economic benefits; consumer protection; and labeling of nanomaterials in consumer products.

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<sup>1</sup> [www.luxresearchinc.com/press/RELEASE\\_NationsRanking2007.pdf](http://www.luxresearchinc.com/press/RELEASE_NationsRanking2007.pdf)

“The policy challenges for nanotechnology are enormous, and are currently dominated by a lack of scientific information and basic policy tools, including definitions and metrology; a legal and regulatory framework; and structures and resources for public engagement,” says Holtz.

Mitchell says the next step is to see what support there is for CIELAP’s recommendations from governments, industry and civil society organizations that have an interest in this topic.

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**For more information or to arrange interviews, contact Carolyn Webb at 416-923-3529 ext 26., or Anne Mitchell, cell: 416-577-8402.**

*Founded in 1970, the **Canadian Institute for Environmental Law and Policy (CIELAP)** is an independent environmental law and policy research and education organization.*

**[www.cielap.org](http://www.cielap.org)**