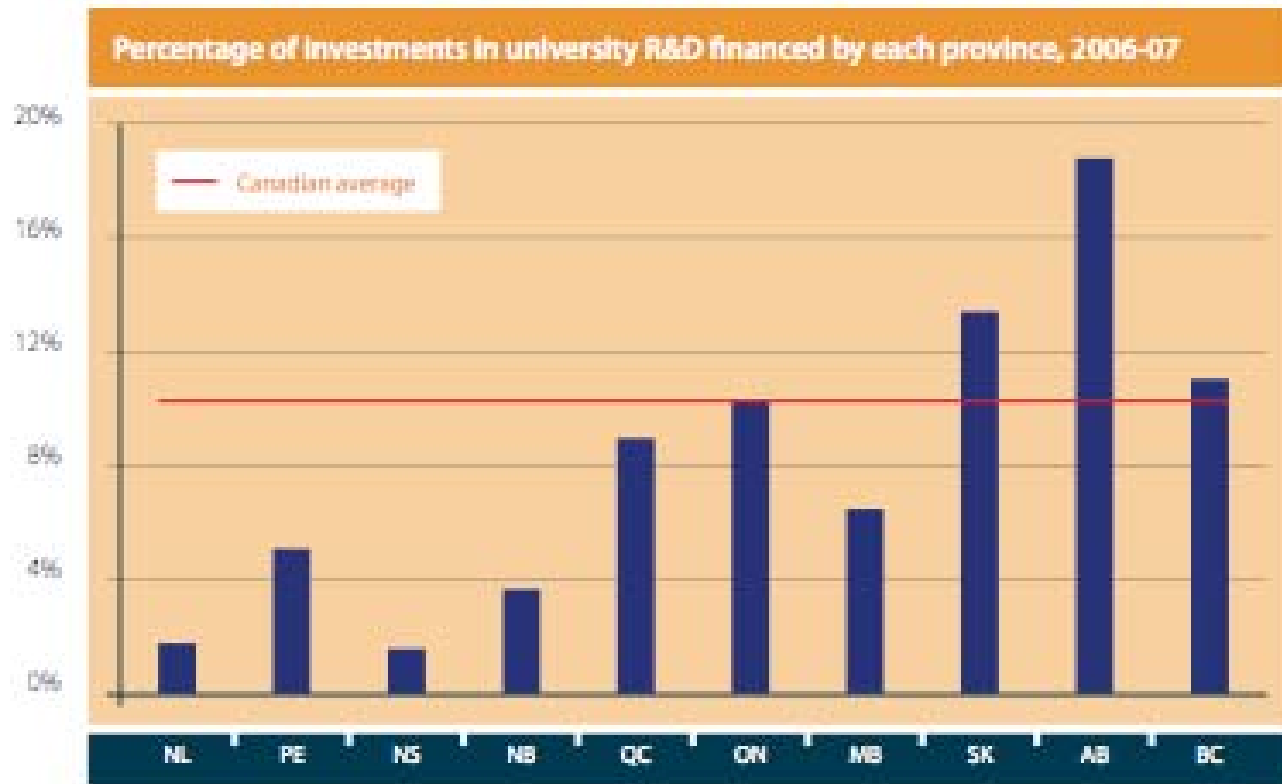


Research Infrastructure and the City Region: A Dalhousie Example

smart city / cool city

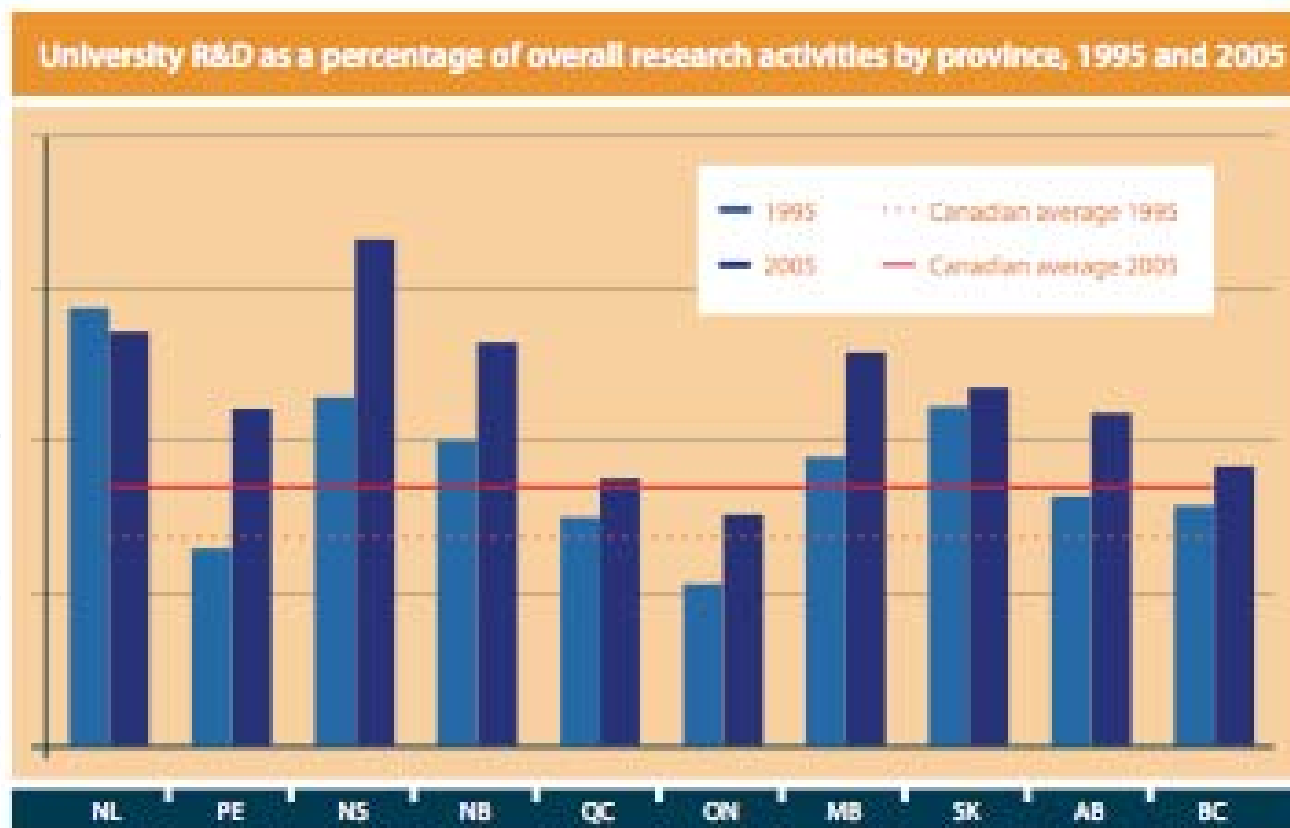


University R&D funded by Province



Source: Statistics Canada

University R&D as % of Provincial R&D



Source: Statistics Canada



Cool cities

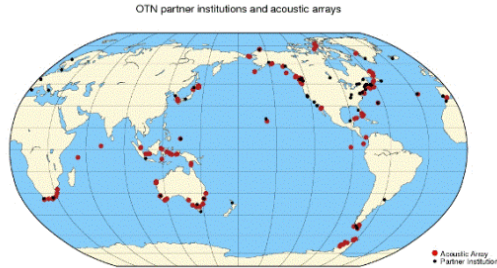
- Zurich (Switzerland)
- Berkley (California)
- Heidelberg (Germany)
- Cambridge (Massachusetts)
- Montreal (Quebec)
- Melbourne (Australia)
- San Francisco (California)
- Vancouver (British Columbia)
- **Smart Halifax (Nova Scotia)-more PhDs per capita**



Dalhousie attraction

- Dalhousie attract top talent from around the world
- Best place to work in science outside of the USA
- More than 50% of Dal students are not from Nova Scotia (**check**)
- Students come from over 100 countries to Dal (**check**)
- Now that's COOL!





Ocean Tracking Network

- Dalhousie is spearheading research into Climate Change and Oceans
- OTN is a truly global project being conducted in all the worlds Oceans
- Global research fuels local economy; local company supports global research
- Data collected around the world will be analysed at Dalhousie
- Project support = \$150 million
- Now that's COOL!





Vaccines

- Funding from the Bill and Melinda Gates Foundation is making Halifax one of the best known centres in the world for vaccine research and clinical development
- IVT is a spin off company from this research
- The need for vaccines continues to expand and grow as disease causing organisms become resistant to drugs and populations expand
- Researchers at Dal and IWK are helping to combat infectious diseases worldwide
- Now that is COOL and SMART



Batteries



- Did you know that 3M relies on a Dalhousie researcher to come up with new battery ideas
- That most Lithium batteries sold by 3M got started at Dal
- That Prof. Jeff Dahn employs a small but SMART army (over 30!) researchers from around the world to help him create new materials for batteries and other uses
- “Jeff is the most important academic collaborator that 3M has worldwide”. Mike Irwin, Head of Research, 3M Canada
- Should 3M open up a branch in Halifax?



Pain

- Pain is a multi-billion component of the pharmaceutical industry
- Dalhousie researchers looking for new pain treatments discovered that previously unused drug combinations work very well and have little or no side effects
- New York based EPICEPT Corporation (NASDAQ: EPCT) is now close to approval by the FDA for this novel product
- SMART people and SMART ideas





Concrete

- Who would have thought that small bits of plastic could replace iron rebar in concrete.
- Well a Dalhousie engineering professor and his student did and now the university holds patents on this invention
- Sales around the world on this one product bring in more than \$50,000 per year to Dalhousie
- SMART Products





Life Sciences Research Institute

- Research and Innovation convergence centre
- New home for Industry Liaison and Innovation Offices and InNOVAcorp located side by side with each other and the hospitals and the Dalhousie Faculty of Medicine
- Researchers, Spinouts, Startups and Medical Technology companies all in one location
- Connecting research, health and innovation
- Connecting Universities and Hospitals and Industry
- **Smart , Stimulating and cool collaborations**



Initiatives

- Enhanced graduate student, PDF and clinical fellow recruitment and funding
- Made in Nova Scotia S&T strategy
- Coordinated approaches to creating and building SMEs
- Improving conditions for attracting investment capital for SMEs
- Focused support for national research initiatives involving all levels of government, private sector, foundations, universities and other institutions



Dalhousie University

- Powerhouse in SMART research and innovation
- Attracting SMART people globally
- Developing SMART solutions and ideas
- SMART partnerships
- SMART products
- COOL place to work
- Dalhousie Inspiring SMART Minds and generating COOL ideas

