

## FOCUS ON Partnerships RESEARCH

# Partnerships a Cornerstone of Research With Impact

This year's *Canada's Innovation Leaders* theme is "Knowledge Transfer Through Research Partnerships" – focussing on how research partnerships are key to effective research, training and applications. Talk to research leaders across the country (see feature article page 1) and they'll inevitably speak of the power of research partnerships for facilitating and enriching research and moving ideas out of the laboratory into the marketplace and broader society. Whereas solid funding of basic academic research and applied industrial research are necessary conditions for success of Canada's research enterprise, partnerships can take the research to new levels. How?

In the first instance, partnerships can bring additional financial resources – cash and in-kind – to academic research in our universities, colleges and hospitals and expand its scope beyond available core funding. Many companies and charities, for example, are investing substantial sums to initiate or top-up research in our publicly-funded research institutions. Partnerships among the academic, industrial and government sectors can similarly expand the scale and scope of research conducted in industry.

But partnerships are about more than money. They are equally about expertise and know-how, and how expertise and know-how from different partners are brought together to address scientific and engineering challenges and opportunities. In these instances each partner brings its own capabilities to the table. Combining, say, the academic knowledge of a university researcher with the manufacturing knowledge of a medical device company can improve the chance

of commercial success of, for instance, a mobility device for people with disabilities.

Partnerships can also expand the reach and impact of publicly-funded research infrastructure – facilities and equipment that have been paid for with tax dollars. Many companies rely on the research infrastructure in university and government labs to gain access to facilities and equipment they cannot afford on their own, to develop or test technologies and products. Occasionally, academic researchers benefit from the research infrastructure in companies.

Most academic research is actually undertaken by graduate students or in the case of colleges, undergrads who are pursuing degrees or diplomas. Increasingly, students are fulfilling their research obligations by working in and with companies. This form of hands-on research training adds value to students' experience. It also constitutes a fast-track to employment as students and employers get a chance to assess one another during the research project. It's a real win-win scenario.

So, research partnerships add value to academic and industrial research in a variety of ways. How then to measure partnerships? RESEARCH Infosource is pleased to shine a spotlight on the universities, colleges and companies that stand out in their commitment to partnerships, on a variety of indicators.

Data from Statistics Canada have allowed us to determine which universities, in a 5-year period, have attracted the most research funding from the corporate and non-profit sectors; in total, and as a proportion of their total research income. This provides a useful surrogate for the level of partnerships being formed. This special university spotlight can be found on page 6.

Data from the Natural Sciences and Engineering Research Council of Canada (NSERC) awards database provided a similar perspective on corporate research partnerships with universities and colleges and the companies that are partnering with them.

### Top 20 Companies Partnering with Universities and Colleges 2010-2014

| Rank | Company                               | Total Partnership Grants # |
|------|---------------------------------------|----------------------------|
| 1    | Hydro-Québec                          | 313                        |
| 2    | Atomic Energy of Canada Limited       | 207                        |
| 3    | Bombardier Inc.                       | 181                        |
| 4    | General Motors of Canada Limited (fs) | 152                        |
| 5    | Suncor Energy Inc.                    | 146                        |
| 6    | IBM Canada Ltd. (fs)                  | 136                        |
| 7    | Vale Canada Limited (fs)              | 132                        |
| 8    | Shell Canada Limited (fs)             | 128                        |
| 9    | Pratt & Whitney Canada Corp. (fs)     | 126                        |
| 10   | BlackBerry Limited                    | 125                        |
| 11   | Syncrude Canada Ltd.                  | 110                        |
| 12   | BCE Inc.                              | 103                        |
| 13   | Rio Tinto Group (fs)                  | 94                         |
| 14   | Glencore Canada Corporation (fs)      | 90                         |
| 14   | Manitoba Hydro                        | 90                         |
| 16   | Imperial Oil Limited                  | 89                         |
| 16   | Resolute Forest Products Inc. (fs)    | 89                         |
| 18   | Teck Resources Limited                | 85                         |
| 19   | Tembec Inc.                           | 83                         |
| 20   | Ericsson Canada Inc. (fs)             | 76                         |

#### Notes:

1. Based on NSERC's award database and companies that partnered with universities and/or colleges during all 5 years between FY2010-FY2014.
2. Data are provided for the current parent company including any of its affiliated companies, divisions, subsidiaries and related companies involved in mergers/acquisitions during the period that partnered with an university and/or college directly, where applicable.  
fs = Foreign subsidiary

In these tables we present the top universities and colleges that partnered with companies based on the total amount of corporate partnership grants received. We also highlight the top companies partnering with these institutions.

RESEARCH Infosource extends its congratulations to all involved in research partnerships.

### Top Universities Partnering with Companies 2010-2014

| Rank | Medical/Doctoral                             | Total Partnership Grants \$000 |
|------|--|--------------------------------|
| 1    | University of British Columbia               | \$76,506                       |
| 2    | University of Toronto                        | \$75,064                       |
| 3    | University of Alberta                        | \$66,292                       |
| Rank | Comprehensive                                | Total Partnership Grants \$000 |
| 1    | University of Waterloo                       | \$56,553                       |
| 2    | University of Guelph                         | \$29,564                       |
| 3    | Simon Fraser University                      | \$25,103                       |
| Rank | Undergraduate                                | Total Partnership Grants \$000 |
| 1    | École de technologie supérieure <sup>+</sup> | \$15,066                       |
| 2    | Ryerson University                           | \$9,658                        |
| 3    | Université du Québec à Chicoutimi            | \$6,641                        |

Note: 1. Based on NSERC awards database and universities that had one or more partnership grants with corporate partner(s) during all 5 years between FY2010-FY2014. <sup>+</sup>Not full-service university

### Top 10 Research Colleges Partnering with Companies 2010-2014

| Rank | College                          | Total Partnership Grants \$000 |
|------|----------------------------------|--------------------------------|
| 1    | SAIT Polytechnic                 | \$6,800                        |
| 2    | Cégep de Saint-Hyacinthe         | \$6,092                        |
| 3    | Cégep de l'Abitibi-Témiscamingue | \$5,750                        |
| 4    | Sheridan College                 | \$4,942                        |
| 5    | Cégep de La Pocatière            | \$4,848                        |
| 6    | Cégep de Thetford                | \$4,609                        |
| 7    | Algonquin College                | \$4,550                        |
| 8    | Mohawk College                   | \$4,208                        |
| 9    | Seneca College                   | \$4,100                        |
| 10   | George Brown College             | \$3,977                        |

Note: 1. Based on NSERC awards database and colleges that had one or more partnership grants with corporate partner(s) during all 5 years between FY2010-FY2014.