

# DELIVERING RESULTS THAT MATTER TO CANADIANS

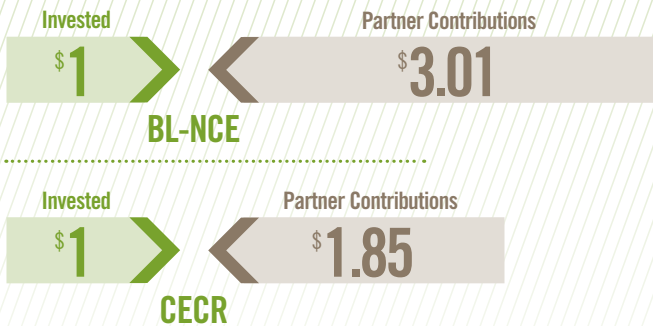


NCE RCE

Networks of Centres of Excellence of Canada

[www.nce-rce.gc.ca](http://www.nce-rce.gc.ca)

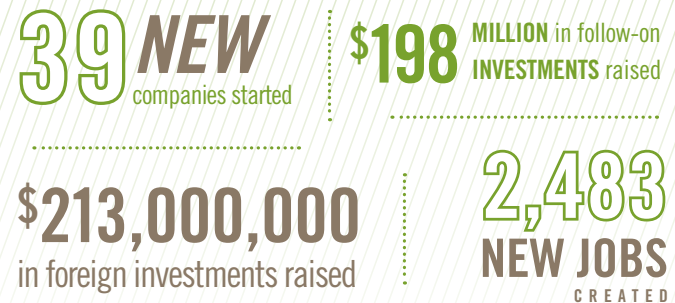
## LEVERAGING NETWORKS OF CENTRES OF EXCELLENCE INVESTMENTS



Through programs such as the Centres of Excellence for Commercialization and Research (CECR) and the Business-Led Networks of Centres of Excellence (BL-NCE), the NCE is one of Canada's most effective tools for stimulating private-sector investment in research and innovation. Nearly half of all partner contributions come from industry.

## TURNING RESEARCH EXCELLENCE INTO JOBS AND COMPANIES

Centres of Excellence for Commercialization and Research impacts on organizations served, 2011-12



The Centres of Excellence for Commercialization and Research program has become a major company—and job—creator for Canada. Centres provide the right boost at the right time to turn promising research breakthroughs into innovative products and services.

**160% RISE**  
 IN INDUSTRY CONTRIBUTIONS  
 FROM 2009 TO 2012  
 INCREASING PRIVATE-SECTOR  
 R&D INVESTMENTS

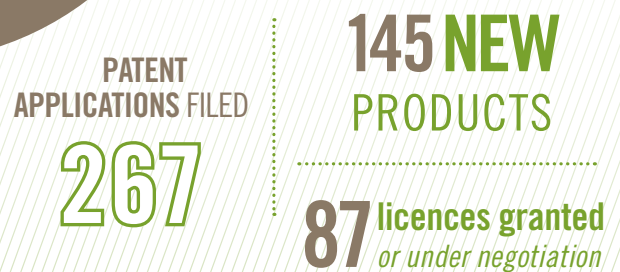
## MOBILIZING EXCELLENCE FROM ACROSS CANADA



Collaborations involving a record 3,183 public and private sector partnerships, 1,494 researchers and 2,731 highly qualified personnel in 2011-12 mobilized a national response to some of the country's biggest challenges.

## DEVELOPING NEW PRODUCTS AND INNOVATIONS

Networks & centres impacts on the marketplace, 2011-12



Various centres and networks have in-house technical and business experts who screen promising technologies, conduct further development and testing, and assist with the marketing plans, business cases and international linkages needed to turn research into products, services and productivity gains.

## The Networks of Centres of Excellence

# DELIVERING RESULTS THAT MATTER TO CANADIANS

NCE-funded Networks of Centres of Excellence (NCE), Knowledge Mobilization Networks of Centres of Excellence (KM-NCE), Business-Led Networks of Centres of Excellence (BL-NCE), and Centres of Excellence for Commercialization and Research (CECR) focus research capacity on social and economic challenges, commercialize and apply Canadian research breakthroughs, increase private-sector R&D, and train highly qualified people.



Photo: ArticNet

### Evidence helps Canada prepare for a changing Arctic

The **ArcticNet** NCE's newest Integrated Regional Impact Study will help officials in Nunavik and Nunatsiavut, and the federal government, develop informed policies to improve quality of life, safeguard the environment and facilitate sustainable development in a warming Arctic.

*"This report, as well as the ArcticNet initiative overall, highlights the importance of research as well as the importance of learning how to do research that adds value, not only to the science community, but also to the communities who are at the center of impacts from climate change."*

**John Cheechoo**, Director, Environment and Wildlife, Inuit Tapiriit Kanatami

### Small investments can lead to big breakthroughs

The **Quebec Consortium for Drug Discovery** BL-NCE, with support from several major pharmaceutical companies, is awarding companies and universities small \$150,000 grants for breakthrough discoveries that address the key bottlenecks faced by the pharmaceutical industry in the drug R&D process. Novartis Pharmaceuticals Canada Inc. invested \$300,000 in the program in 2012.

*"The Explore program is fully compatible with the Novartis objectives to discover, develop and successfully market innovative products to prevent and cure disease, to ease suffering and to enhance quality of life."*

**Dr. Riad Sherif B.**, President, Novartis Pharmaceuticals Canada Inc.

### Supporting product development and open innovation

Pfizer Canada and the **Centre for Commercialization of Regenerative Medicine** CECR are each investing \$500,000 towards a new innovation fund that will focus on developing safer and more reliable forms of drug testing and treatments using stem cells.

*"Pfizer Canada is pleased to contribute to this new fund which will support important research here in Canada. With the novel resources offered through CCRM's development capabilities, we hope to help advance the regenerative medicine field in this country."*

**Dr. Bernard Prigent**, VP and Medical Director, Pfizer Canada

### Building a national digital media powerhouse

Cyborg Trading, a start-up that develops automated trading technology for financial firms, received \$4,000 from the **Canadian Digital Media Network** (CDMN) CECR to meet with investors in New York and set up an incubator space. Those meetings helped Cyborg secure \$2 million in equity and two long-term deals valued at close to \$200,000 per year. The company is now expanding its team from 25 to 36 people. Companies supported by CDMN raised more than \$85 million in 2012.

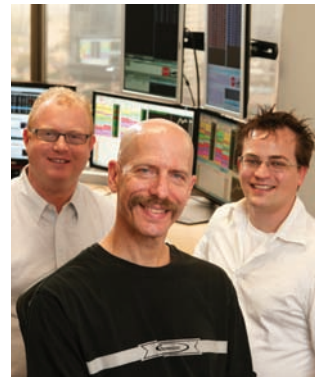


Photo: Adam Gagnon

< Cyborg Trading Systems founder **James McInnes** (far left), with **Peter Metford** (centre) and **Ben Bittrolff** (far right). The company, which received support from CDMN's Soft Landing program, develops automated trading technology for financial firms, including hedge funds, brokers, banks and proprietary traders.

*"It's pretty much a sink or swim scenario when you hit New York, and you need to spend time in the city to be taken seriously by investors. Being part of the CDMN's Soft-Landing program opened doors and enabled us to get closer to the market."*

**Ben Bittrolff**, Chief Financial Officer, Cyborg Trading

## A national response to stroke care and treatment

In communities across Canada, first responders and front-line healthcare workers are putting in place best practices developed by the **Canadian Stroke Network** NCE that are saving lives, reducing disability and improving quality of life. The Canadian Stroke Strategy has now become the “bible” for stroke care, prevention and rehabilitation in many countries around the world.

*“The Canadian Stroke Network is an influential champion for the effective integration of world-leading stroke research with clinical practice.”*

**Ian Joiner**, Director,  
Heart and Stroke Foundation of Canada



Photo: Wes Raymond Photography

< **Caroline Stephenson** and **Eileen Stewart**, nurses with the Calgary Stroke Program, are among a growing number of healthcare professionals involved in earning national accreditation in stroke care, through a program developed by the Canadian Stroke Network and Accreditation Canada.



## Grassroots groups adopt new tools to combat bullying

Scouts Canada, Boys and Girls Clubs of Canada, and the Big Brothers Big Sisters of Canada are among dozens of Canadian organizations that now have access to education and training programs, assessment tools and intervention strategies that have been scientifically proven to reduce bullying, thanks to the work of the **PREVnet (Promoting Relationships and Eliminating Violence Network)** KM-NCE.

*“We have incorporated PREVNet feedback and resources, and consider our training and support stronger as a result. Big Brothers Big Sisters agencies across Canada serve over 35,000 children and youth annually. Agencies train and support these young people, as well as their parents/guardians and volunteer mentors. The enhanced resources will benefit many.”*

**Susan Climie**, Director of Training,  
Big Brothers Big Sisters of Canada

## Applying a business lens to promising technologies

The **GreenCentre Canada** CECR start-up, Forward Water Technologies, has developed a green desalination process that uses less energy, and is much more cost effective than current distillation or reverse osmosis-based systems. GCC experts vetted the technology and its commercial potential before clearing it for further testing, validation and financing. The company is currently working with a strategic partner in the water treatment business to move the technology closer to market.

*“Forward Water is one of those technologies that exemplifies GreenCentre’s mandate to change chemistry and change the world. The company’s breakthrough desalination process has the potential to resolve the myriad of social, environmental and economic challenges tied to the dwindling supply of fresh water.”*

**Dr. Rui Resendes**, Executive Director,  
GreenCentre Canada

## Taking wireless companies global

More than 50 small and mid-sized Canadian wireless firms met with prospective customers across Europe, the Middle East, South America, Africa and Asia in 2012 as a result of **Wavefront** CECR's WaveConnect program. Being able to provide these valuable introductions to small Canadian companies has streamlined their access to key decision makers and entry into valuable new markets, accelerating their commercialization and success both at home and in the global marketplace.

*“The WaveConnect market entry program we participated in with Wavefront yielded extremely valuable results. It was targeted, well organized and time-efficient, and we could not have put something like this together as quickly.”*

**Michael Kuhlmann**, CEO,  
Colony Networks

## The Networks of Centres of Excellence

# PARTNERING BEYOND CANADA'S BORDERS



**Dr. Nemkumar (Nemy) Banthia,**  
Scientific Director, IC-IMPACTS

### First ever Canada-India Research Centre of Excellence

The new **India-Canada Centre for Innovative Multidisciplinary Partnerships to Accelerate Transformation and Sustainability (IC-IMPACTS)** brings together a team of expert researchers, industry innovators, community leaders, government agencies, and community organizations from both Canada and India to address three important issues that affect millions of people: safe and available drinking water, effective public health by preventing and treating disease, and reliable civil infrastructure, such as well constructed bridges and hospitals. IC-IMPACTS' key partners include the University of British Columbia, the University of Alberta, the University of Toronto, and various public and private sector organizations in Canada and India.

*"Canada needs to be connected to an international supply of ideas, research, talent and technologies in order to prosper in an increasingly competitive global environment. This new Canada-India Research Centre of Excellence will build stronger bilateral research ties and create valuable learning opportunities while generating positive economic and social benefits for both countries."*

**Prime Minister Stephen Harper**  
CIRCE funding announcement, November 9, 2012



In 2011-12, NCE programs  
partnered with

**441** INTERNATIONAL  
ORGANIZATIONS

**A 5% increase  
over 2009-10.**

## NCE FUNDED NETWORKS AND CENTRES BY SECTOR

### Health and Life Sciences

Allergy, Genes and Environment Network – AllerGen  
Canadian Arthritis Network – CAN  
Canadian Stroke Network – CSN  
Centre for Commercialization of Regenerative Medicine – CCRM  
Centre for Drug Research and Development – CDRD  
Centre for Imaging Technology Commercialization – CImTeC  
Centre of Excellence for the Prevention of Organ Failure – PROOF Centre  
Centre of Excellence in Personalized Medicine – Cepmed  
Centre for Probe Development and Commercialization – CPDC  
Centre for Surgical Invention and Innovation – CSII  
Children and Youth in Challenging Contexts – CYCC  
Institute for Research in Immunology and Cancer – Commercialization of Research – IRICoR  
MaRS Innovation – MI  
NeuroDevNet  
Pan-Provincial Vaccine Enterprise – PREVENT  
Promoting Relationships and Eliminating Violence – PREVNet  
Quebec Consortium for Drug Discovery – CQDM  
Stem Cell Network – SCN  
Technology Evaluation in the Elderly Network – TVN

The Prostate Centre's Translational Research Initiative for Accelerated Discovery and Development – PC-TRIADD  
Translating Emergency Knowledge for Kids – TREKK

### Information and Communication Technologies

Canadian Digital Media Network – CDMN  
Canadian Photonic Industry Consortium – CPIC  
GEOmatics for Informed DEcisions Network – GEOIDE  
Graphics, Animation and New Media Canada – GRAND  
Mprime Network Inc.  
MiQro Innovation Collaborative Centre – C2MI  
Wavefront

### Environment

ArcticNet  
Canadian Water Network – CWN  
Carbon Management Canada – CMC-NCE  
Green Aviation Research and Development Network – GARDN  
Marine Environmental, Observation, Prediction and Response Network – MEOPAR  
Oceans Network Canada Centre for Enterprise and Engagement – ONCCEE

### Natural Resources

BioFuelNet  
Bioindustrial Innovation Centre – BIC  
Centre of Excellence in Energy Efficiency – C3E  
Leading Operational Observations and Knowledge for the North – LOOKNorth  
Tecterra

### Manufacturing/Engineering

AUTO21 Network of Centres of Excellence

### Cross-sectoral

Advanced Applied Physics Solutions Inc. – AAPS  
Canadian Forest NanoProducts Network – ArboraNano  
Centre for the Commercialization of Research – CCR  
GreenCentre Canada – GCC  
India-Canada Centre for Innovative Multidisciplinary Partnerships to Accelerate Community Transformation and Sustainability – IC-IMPACTS  
Sustainable Technologies for Energy Production Systems – STEPS