NSERC CANADIAN ROBOTICS NETWORK

Greg Dudek
McGill University

What is the NCRN?

- Funding mechanism
  - To accelerate research

- A problem selection/definition mechanism

- Industrial liaison system
  - To connect researchers/developers with shared needs & interests

- Mutual support group
  - Collaborate on approachs, ideas, methods
  - Allow people to share code, resources, ideas, …
  - Allow people to promote one another's interests
  - Shared experimental support (logistics)

Preliminary

NSERC Canadian Robotics Network (NCRN)

10 academic institutions across Canada / 22 top researchers

McGill U.
Gregory Dudek
Joelle Pineau
Inna Sharf
Dave Meger
Roussos Dimitrakopoulos

U. Alberta
Hong Zhang
Jessy Kang

U. Sherbrooke.
Alexis Lussier-Desbiens
Alexandre Girard

Simon Fraser U.
Greg Mori
Mo Chen

Queen's U.
Joshua Marshall
Amy Wu

U. of Waterloo
Katja Mombaur

York U.
Michael Jenkin
John Tsotsos

U. De Laval
François
Pomerleau

U. De Montréal
Liam Paul

U. of Toronto
Angela Schoellig
Steven Waslander
Florian Shkurti

Network Membership

Benefits to Canada

Canadian-Owned IP

New Startups

Strengthen SMEs/MNEs

Talent Retention

Cost-Effective Policies and Programs

Improve STEM Diversity

Talent Attraction
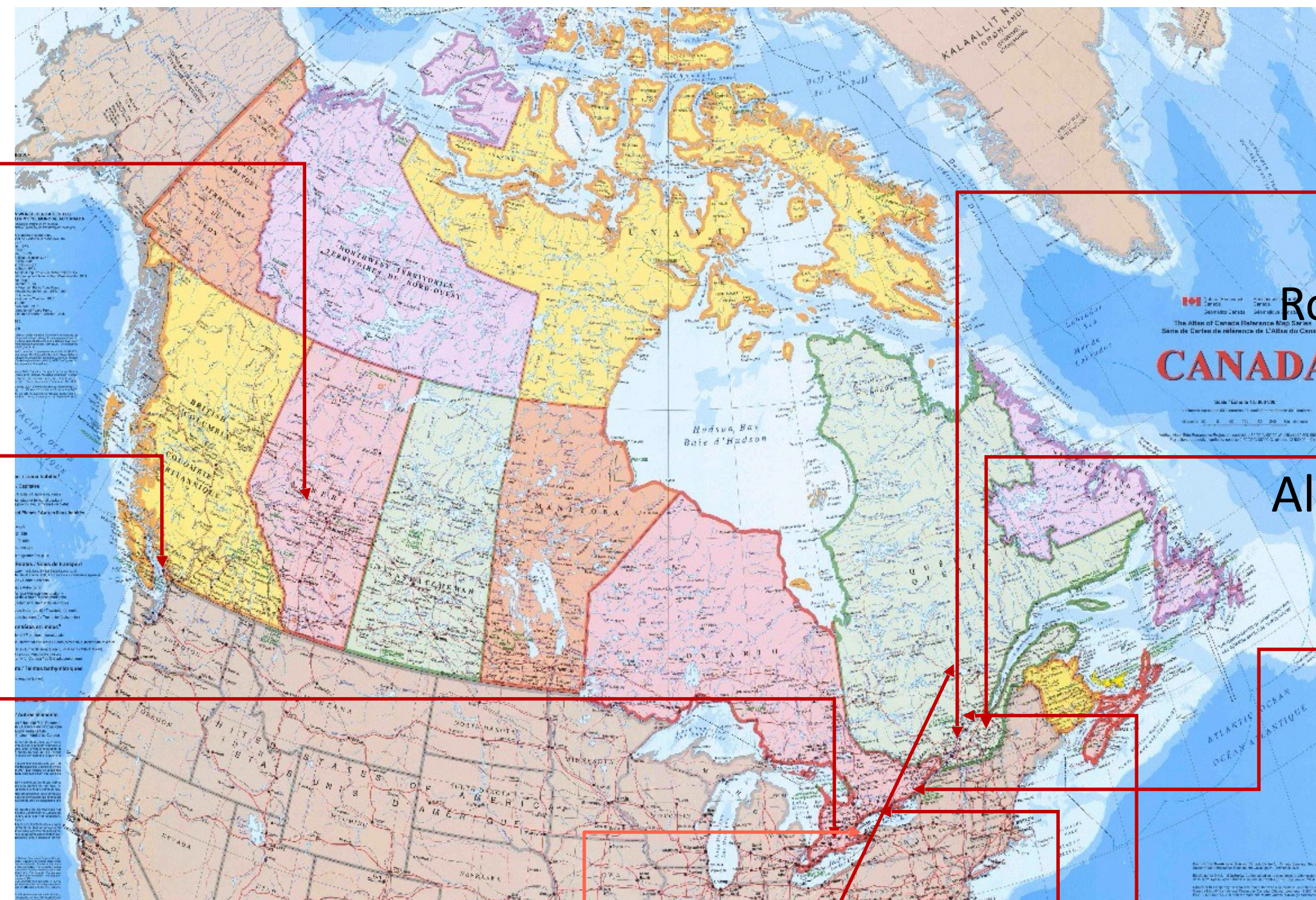
BENEFITS TO INDUSTRY

- Student (HQP) development, internships and hiring.

- Research: IP generation, industry-university joint publications, technology transfer.

- Exposure (national and international).

- Opportunities for partnerships with other industrial partners.

- Promoting lab visits to international and national collaborators.

Advantages of a Network Approach
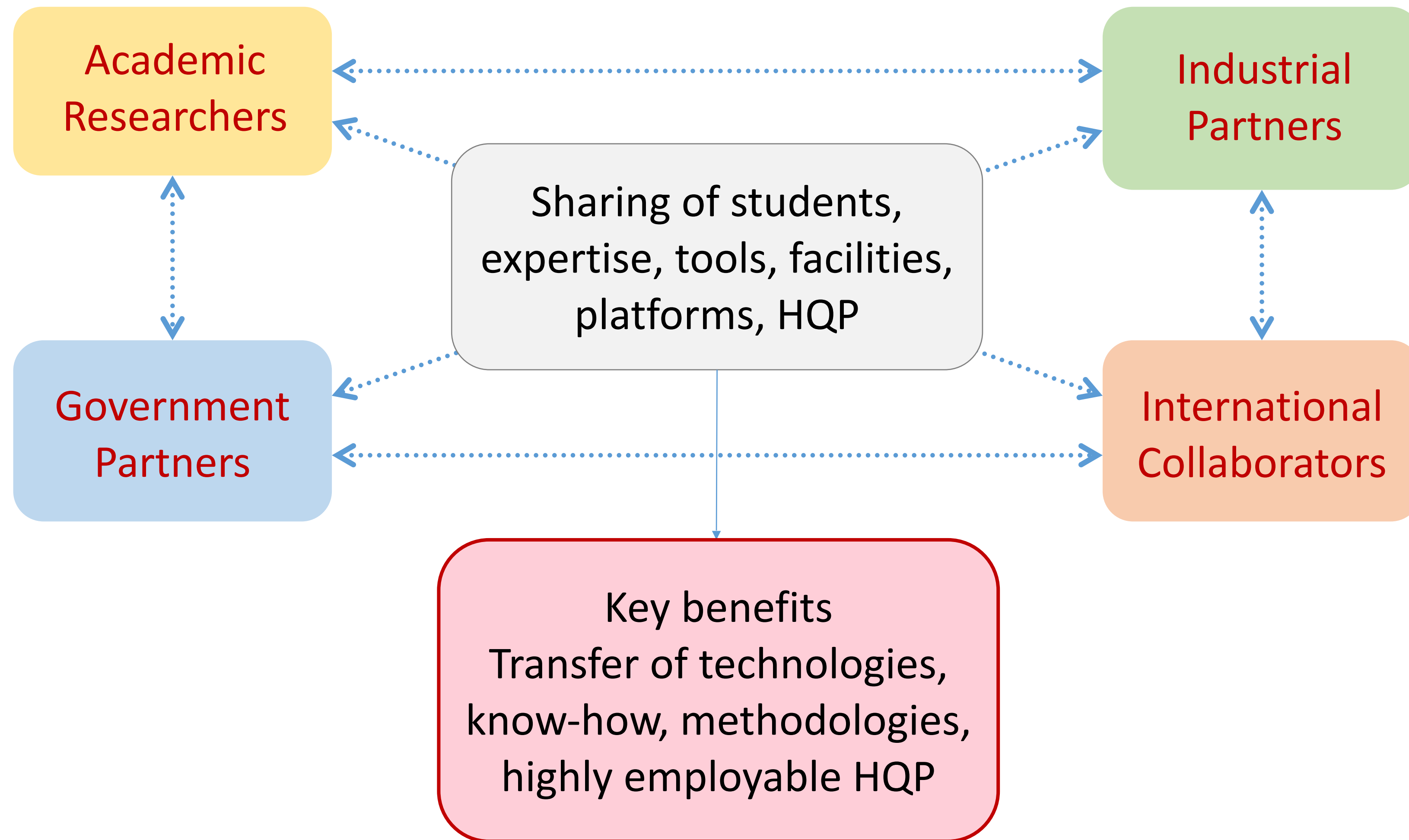
NCRN Research Themes

Autonomous Robots

Resilient Autonomy ←——————→ **Interactive Autonomy**

machine learning

deployment outside the lab

unstructured tasks

human interaction

multi-agent