NRC·CNRC

NATIONAL RESEARCH COUNCIL CANADA

NEXT-LEVEL SCIENCE, TECHNOLOGY AND RESEARCH

National Research Council Canada
Conseil national de recherches Canada

Canada

The National Research Council of Canada's (NRC) Research Centres, Collaboration Centres, and the Industrial Research Assistance Program all serve to advance Canada's goals in research excellence and innovation, and help to make Canadian industry more competitive.

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ADVANCED ELECTRONICS AND PHOTONICS

Pushing the boundaries in photonics and electronics research and the development of new communication and sensor technologies

AREAS OF R&D

- Integrated optics
- Semiconductor lasers
- Sensors
- Printable electronics
- Fabrication processes and prototyping

AEROSPACE

Supporting Canada's aerospace industry with facilities, expertise and industry foresight

AREAS OF R&D

- Aeronautical product development technologies
- Air defence systems
- Unmanned aircraft systems
- Icing on aircraft

AQUATIC AND CROP RESOURCE DEVELOPMENT

Scientific research, services and technology development for the sustainable transformation of Canadian bio-based resources into higher-value products

AREAS OF R&D

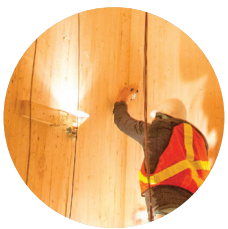
- Algal technologies
- Bio-based specialty chemistry
- Canadian wheat improvement

AUTOMOTIVE AND SURFACE TRANSPORTATION

Innovative technology solutions help Canada be more competitive through innovations in mobility and manufacturing excellence

AREAS OF R&D

- Vehicle lightweighting
- Digital manufacturing
- Additive manufacturing and surface engineering
- Vehicle electrification
- Fleet management and heavy-duty vehicles
- Rail technologies



CONSTRUCTION

An integrated innovation and business environment sustained by focused strategic research and technical expertise

AREAS OF R&D

- Building regulations for market access
- High performance buildings

DIGITAL TECHNOLOGIES

Making digital technologies smarter and more intuitive by exploring uses of data and information in innovative and meaningful ways to solve real problems

AREAS OF R&D

- Artificial intelligence
- Bioinformatics
- Blockchain
- Computer vision and graphics
- Cybersecurity
- Data analysis and modelling
- Human computer interaction
- Internet of things
- Natural language processing

ENERGY, MINING AND ENVIRONMENT

The latest innovations in clean energy, advanced mining technologies and environmental remediation to Canadian industry

AREAS OF R&D

- Mining technologies
- Environmental remediation
- Water treatment
- Bioenergy
- Energy storage
- Real time process monitoring
- Sensor technology
- Clean tech

Specialized facilities at 179 buildings on 22 sites

983 R&D clients (811 industry)

2,151 scientists, engineers, technicians, other specialists and 255 IRAP industrial technology advisors

WE ARE THE GOVERNMENT OF CANADA'S LARGEST RESEARCH AND DEVELOPMENT ORGANIZATION WITH OVER 100 YEARS OF EXPERIENCE

HERZBERG ASTRONOMY AND ASTROPHYSICS

Canada's foremost authority on astronomy and astrophysics, maintaining Canada's largest and most powerful observatories

AREAS OF R&D

- Optical astronomy
- Radio astronomy
- Astronomy technology

HUMAN HEALTH THERAPEUTICS

Improve health for the benefit of society by accelerating the discovery and development of innovative biologic medicines in Canada

AREAS OF R&D

- Biologics and biomanufacturing
- Therapeutics beyond brain barriers
- Vaccines and immunotherapeutics

MEDICAL DEVICES

Creating innovative medical technologies and providing customized research and technology solutions

AREAS OF R&D

- Biosensors and biochips
- Microfluidics
- Medical photonics
- Digital health and simulation technologies
- Implantable biomaterials

METROLOGY

Accurate measurement underpins industrial success across all sectors of the economy

AREAS OF R&D

- Biotoxin, inorganic and organic certified reference materials
- Remote time signals
- Glow discharge mass spectrometry analysis
- Instrument calibration
- Lab assessments

NANOTECHNOLOGY

Advancing nanoscience into biomedicine, energy, materials and scientific instrumentation innovations

AREAS OF R&D

- Microscopy
- Nanobiology
- Nanoelectronics

OCEAN, COASTAL, AND RIVER ENGINEERING

Researching the effects of ice and waves on ships, structures and shorelines

AREAS OF R&D

- Arctic
- Marine infrastructure, energy and water resources

SECURITY AND DISRUPTIVE TECHNOLOGIES

Quantum photonics, cutting edge security materials technologies and attosecond science

AREAS OF R&D

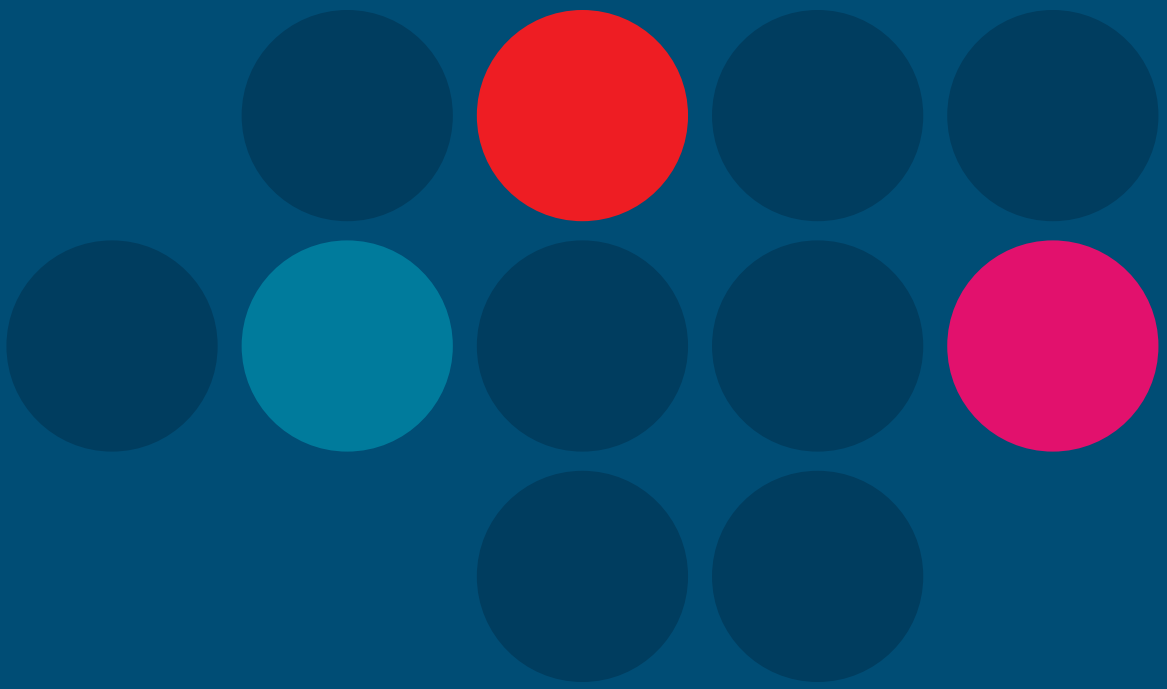
- Quantum photonic sensing and security
- Security material technologies

INDUSTRIAL RESEARCH ASSISTANCE PROGRAM

Providing advice, connections, and funding to help Canadian small and medium-sized businesses increase their innovation capacity and take ideas to market

COLLABORATION CENTRES

Co-locating researchers and equipment with university, industry and other government organization partners to support research excellence in areas in which Canada can excel



NRC.CANADA.CA

Learn about how the NRC can support your innovation efforts with strategic and collaborative research centres, scientific and technical advisory services, and licensing opportunities.

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