

INNOVATION

Canada Foundation
for Innovation

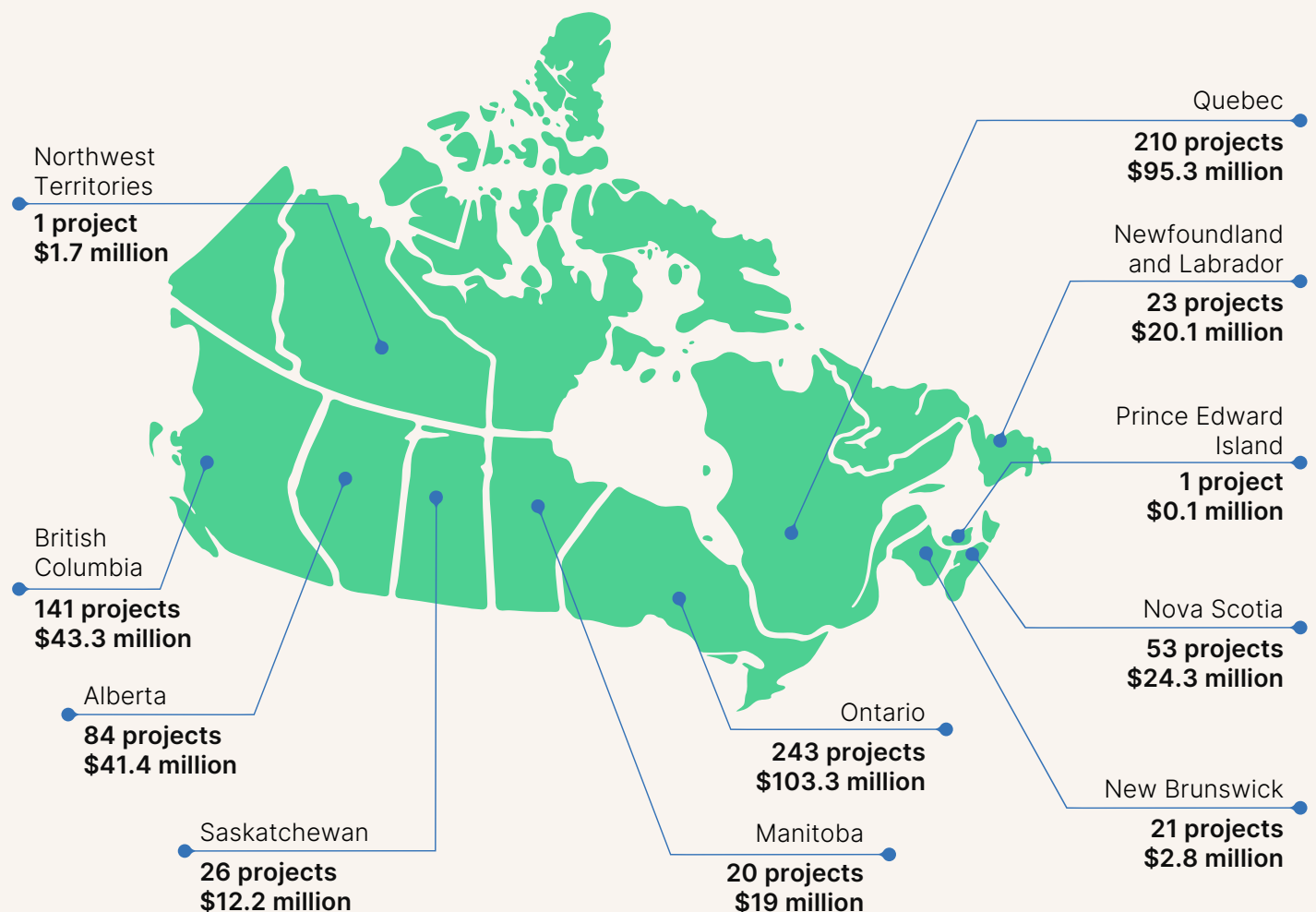
Fondation canadienne
pour l'innovation

Investing in research infrastructure to create a cleaner, greener future

Researchers across the country are urgently working on solutions to address the challenges facing our environment. The Canada Foundation for Innovation (CFI) supports this work by funding research infrastructure — from equipment that monitors climate impacts to labs that develop net-zero emissions building practices and facilities that create clean-technology innovations.

In the last decade, the CFI has invested **\$363 million in 823 environment-related research infrastructure projects at 91 universities and colleges**. With partner funding from provinces, the private sector and others, more than **\$900 million** has been invested in research infrastructure that enables researchers and innovators to build a sustainable future for people in Canada and around the world.

We have supported environmental research across Canada



Key themes of funding



Ocean and freshwater

\$133 million **315 projects**

The CFI has invested more than \$133 million in 315 projects to support aquatic research on groundwater, wetlands, coastal areas, freshwater ecosystems and oceans.

Infrastructure is used to investigate topics such as:

- Provision of safe drinking water for communities in active and legacy mining regions
- The ecology, physiology and genomics of freshwater fisheries
- Artificial intelligence and ocean science
- Impacts of environmental change on coastal water resources



Renewable energy

\$105 million **224 projects**

The CFI has invested over \$105 million in 224 projects related to renewable energy and clean technology to support research on emissions reduction, carbon capture and storage, and electric vehicles.

Infrastructure is used to investigate topics such as:

- Advanced solar energy conversion technologies
- CO₂ capture processes
- Sustainable forest-based products
- Zero-emission hydrogen fuel cells



Biodiversity and conservation

\$42 million **97 projects**

The CFI has invested more than \$42 million in 97 projects focused on supporting research in environmental conservation, habitat and wildlife protection, sustainability and biodiversity.

Infrastructure is used to investigate topics such as:

- Biodiversity monitoring and prediction
- Tracking animal movements
- Forest resilience to global changes
- Impact of pollution on bird species



Built environment

\$24 million **46 projects**

The CFI has invested \$24 million in 46 projects that support research focused on the built environment, ranging from net-zero buildings, energy-efficient power grids and climate-resilient infrastructure.

Infrastructure is used to investigate topics such as:

- Smart-power distribution grids
- Integrated renewable energy infrastructure
- Design of buildings of the future
- Wind effects on the built environment

Key outcomes and benefits

Developing skills for the next generation

For every research project funded in this area, an average of 13 postdoctoral fellows and students per year have expanded their research skills using CFI-funded research infrastructure.

Advancing knowledge

An average of seven researchers per project per year advanced their research using CFI-funded infrastructure.

Sharing research results with the world

On average, 18 research outputs per year have been generated per project, including conference presentations and publications in peer-reviewed journals.

Creating new jobs to support a clean future

24 percent of researchers reported one or more jobs created due to CFI-funded infrastructure.

Supporting innovation for sustainable economic growth

CFI-funded infrastructure has contributed to the development of more than 275 new intellectual property rights, such as patents and industrial designs, and helped create spin-off companies innovating in areas such as solar cells, plastics recycling, fuel cells and energy storage.



Research benefits people in Canada and around the world

Research funded by the CFI has contributed to:

- Developing a system to wirelessly charge electric vehicles while they're being driven
- Perfecting ways to identify types of microplastic in the Great Lakes
- Providing greater protection against biological invasions by contributing to the development of a Transport Canada policy on ship ballast water
- Integrating bioremediation processes for a mining company
- Implementing a biofiltration system for groundwater treatment in remote regions of Canada
- Advising the Government of Canada on standards related to mercury contamination in fish
- Producing a high-performance and low-cost supercapacitor to reduce the manufacturing cost of batteries
- Launching a Canadian company that is introducing the next generation of air-to-water-generation technology, which absorbs moisture from the air to produce water