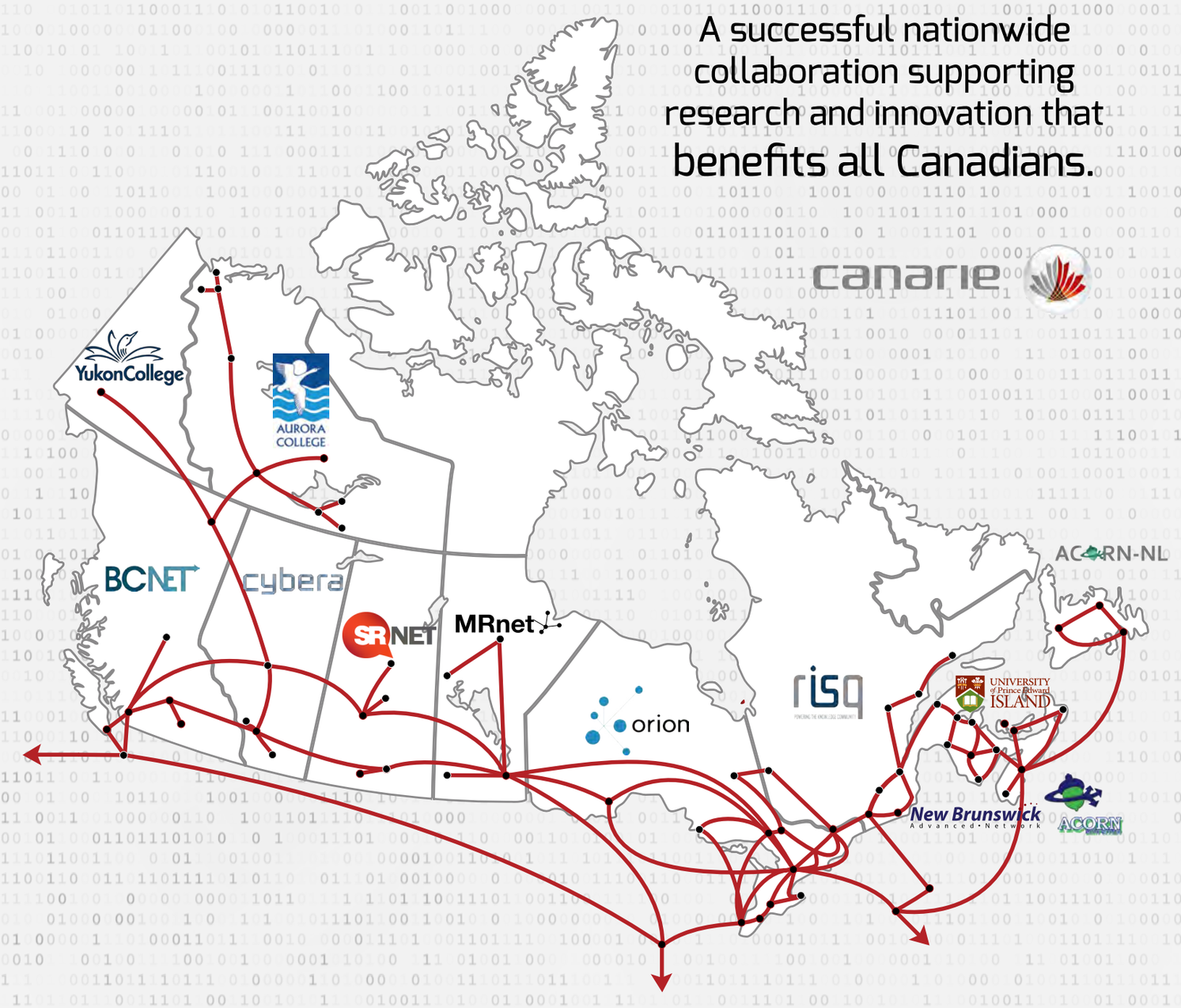
Canada's National Research and Education Network (NREN)

Essential digital infrastructure for innovation

Canada's National Research and Education Network (NREN) is a successful collaboration among 12 provincial and territorial research and education networks and CANARIE. The provincial and territorial networks connect institutions within their jurisdictions, and CANARIE connects these partners to each other and to over 100 international research and education networks.

A successful nationwide collaboration supporting research and innovation that benefits all Canadians.



ACORN-NL acorn-nl.ca
ACORN-NS acorn-ns.ca
Aurora College auroracollege.nt.ca
BCNET bc.net
CANARIE canarie.ca
Cybera cybera.ca
MRnet mrnet.mb.ca
New Brunswick Advanced Network nbren.ca
ORION orion.on.ca
University of PEI nbpei-ecn.ca
RISQ risq.quebec
SRnet srnet.ca
Yukon College yukoncollege.yk.ca

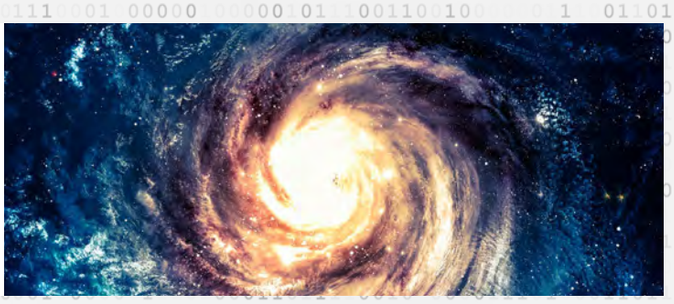
The NREN supports access to data and tools for Canadians participating in leading-edge scientific research, innovation, and discovery:

Canada's NREN is our country's ultra high-speed information highway. This powerful web of fibre-optic networks enables Canadians to access Big Data and tools to build our digital economy.

Here are some examples:

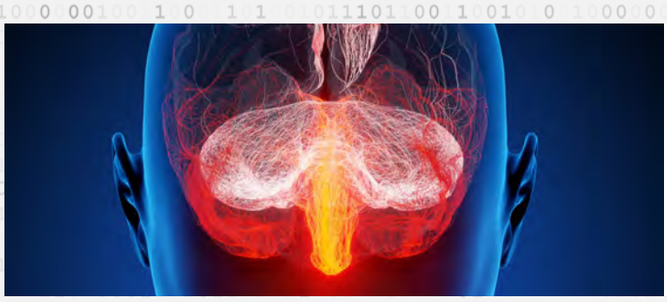
Scientists get a fish eye view of ocean ecosystems via data from Ocean Networks Canada's world-leading NEPTUNE and VENUS cabled ocean observatories, which collect data on the physical, chemical, biological and geological aspects of the ocean.

Physicists use data generated by the ATLAS experiment at the Large Hadron Collider at CERN, Switzerland, to explore the origins of our universe and our place in it.



The NREN is leveraged by educators across the country to deliver distance education and on-line educational tools.

Microdata from Statistics Canada's population and household surveys located at 26 universities across the country is used by researchers to generate a rich picture of Canada's social landscape.



Neuroscientists use the CBRAIN platform to connect to the tools and computing power that support state-of-the-art brain research to uncover new insights into the human brain, the most complex organism in the known universe.