

In 2017, the government allocated Can\$ 950 million over a five-year period to support innovative 'superclusters'. In so doing, the government is challenging Canadian enterprises to enter into collaborative partnerships with research institutions, in order to develop 'bold and ambitious' innovation strategies. The government expects the initiative to result in the creation of 50 000 jobs over ten years.

These superclusters are an attempt to define a new model for enhancing strategic investment in innovation, in which the private sector is required to match government funding. After a nine-month competition that led to over 50 letters of intent, the winning superclusters covered five sectors and were spread across the country.

The first of these is the **Next Generation Manufacturing Supercluster**, based in Ontario. It is working with over 1 000 collaborators to scale up new manufacturing capabilities in the automotive, aerospace and biomedical sectors, among others. Since the outbreak of the novel coronavirus, this supercluster has allocated up to Can\$ 50 million through its Covid-19 Response

Program, which is helping companies to produce essential equipment and medical products and develop their technological capacity in the process.

Canada's **Ocean Supercluster** on the Atlantic coast targets the development of the ocean economy, which currently accounts for 1% of Canadian GDP, compared to the global average of 3.5%. Canada has the world's longest coastline and fourth-largest ocean territory. The Halifax-based supercluster aims to bring together leaders in ocean-related industries to co-invest in R&D to solve key ocean challenges. As part of one of its first projects, the cluster has invested Can\$ 5.9 million over three years to advance capacities for data acquisition and analytics using underwater robots, for the purpose of assessing ocean environmental metrics and marine habitats, among other uses.

The **Protein Industries Supercluster** in the Prairie provinces, meanwhile, plans to integrate plant genomics, novel processing technologies, information technology and AI from the crop level in the supply chain for plant protein food and feed. With more than 120 participants, it aims to raise Canada's share of global agricultural exports to 8% by 2025, up from 5.7%.

Over 350 organizations are working together in the **Digital Technology Supercluster** based in British Columbia to innovate in areas that include virtual, mixed and augmented reality, data analytics and quantum computing. Pilot projects are underway in precision health, natural resources and manufacturing. This supercluster is investing up to Can\$ 60 million through its Covid-19 Program in projects building technological solutions to problems related to the coronavirus, as well as future outbreaks.

The **Scale Artificial Intelligence Supercluster**, based in Montreal, Quebec, is arguably the most far-reaching of the five experiments in innovation. It is focusing on integrating AI and data science in supply chains, particularly in the retail, manufacturing and infrastructure sectors. In May 2020, this supercluster launched a call for projects to find ideas and solutions to the Covid-19 crisis that leverage technology. Within three weeks, more than 120 projects had been submitted and eight approved, representing a total investment of over Can\$ 3.4 million.

Source: compiled by author