Building the Economy of the Future BACKGROUNDER BUDGET 2021

A plan for a long-term recovery must look to challenges and opportunities that lie ahead in the years and decades to come. It must be led by a growth strategy that builds on the unique competitive advantages of the Canadian economy, and make sure that Canada is well-positioned to meet the demands of the next century. This work begins with innovation.

Accelerating Canada's Net-zero Transformation Through Innovation

The Net Zero Accelerator, launched in the government's strengthened climate plan last December, will help build and secure Canada's clean industrial advantage. By investing in decarbonizing large emitters, transforming key sectors—from steel and aluminium to cement—and accelerating the adoption of clean technology across the economy–for example, the auto and aerospace sectors—the Net Zero Accelerator will spur Canada's shift to innovative net-zero technologies and attract the large-scale investments needed to meet our goal of net-zero by 2050.

Budget 2021 proposes to provide \$5 billion over seven years (cash basis), starting in 2021-22, to the Net Zero Accelerator. Building on the support for the Net Zero Accelerator announced in the strengthened climate plan, this funding would allow the government to provide up to \$8 billion of support for projects that will help reduce domestic greenhouse gas emissions across the Canadian economy.

Expanding the Industrial Research Assistance Program

Canada's most innovative small and medium-sized businesses have an outsized impact on job creation and economic growth. But they need access to expertise and capital to grow. For several decades, the National Research Council's Industrial Research Assistance Program has provided expertise and capital and has helped business to scale up.

 Budget 2021 proposes to provide \$500 million over five years, starting in 2021-22, and \$100 million per year ongoing, to expand the Industrial Research Assistance Program to support up to 2,500 additional innovative small and medium-sized firms.

Renewing the Pan-Canadian Artificial Intelligence Strategy

Artificial intelligence is one of the greatest technological transformations of our age. Canada has communities of research, homegrown talent, and a diverse ecosystem of start-ups and scale-ups. But these Canadian innovators need investment in order to ensure our economy takes advantage of the enormous growth opportunities ahead in this sector. By leveraging our position of strength, we can also ensure that Canadian values are embedded across widely used, global platforms.

Budget 2021 proposes to provide \$443.8 million over ten years, starting in 2021-22, in support of the Pan-Canadian Artificial Intelligence Strategy.

Launching a National Quantum Strategy

Quantum technology is at the very leading edge of science and innovation today, with enormous potential for commercialization. This emerging field will transform how we develop and design everything from life-saving drugs to next generation batteries, and Canadian scientists and entrepreneurs are well-positioned to take advantage of these opportunities. But they need investments to be competitive in this fast growing global market.

Budget 2021 proposes to provide \$360 million over seven years, starting in 2021-22, to launch a National Quantum Strategy. The strategy will amplify Canada's significant strength in quantum research; grow our quantum-ready technologies, companies, and talent; and solidify Canada's global leadership in this area. This funding will also establish a secretariat at the Department of Innovation, Science and Economic Development to coordinate this work.

Revitalizing the Canadian Photonics Fabrication Centre

Canada is a world leader in photonics, the technology of generating and harnessing the power of light. This is the science behind fibre optics, advanced semi-conductors, and other cutting-edge technologies, and there is a strong history of Canadian companies bringing this expertise to the world. The National Research Council's Canadian Photonics Fabrication Centre supplies photonics research, testing, prototyping, and pilot-scale manufacturing services to academics and large-, small-, and medium-sized photonics businesses in Canada.

Budget 2021 proposes to provide \$90 million over five years on a cash basis, starting in 2021 22, to the National Research Council to retool and modernize the Canadian Photonics
 Fabrication Centre.

Launching a Pan-Canadian Genomics Strategy

Genomics research is developing cutting-edge therapeutics and is helping Canada track and fight COVID-19. Canada was an early mover in advancing genomics science and is now a global leader in the field. A national approach to support genomics research can lead to breakthroughs that have real world applications. There is an opportunity to improve Canadians' health and well-being, while also creating good jobs and economic growth. Leveraging and commercializing this advantage will give Canadian companies, researchers, and workers a competitive edge in this growing field.

Budget 2021 proposes to provide \$400 million over six years, starting in 2021-22, in support of a Pan-Canadian Genomics Strategy. This funding would provide \$136.7 million over five years, starting in 2022-23, for mission-driven programming delivered by Genome Canada to kick-start the new strategy, and complement the government's existing genomics research and innovation programming.

Promoting Canadian Intellectual Property

As the most highly educated country in the OECD, Canada is full of innovative and entrepreneurial people with great ideas. Those ideas are valuable intellectual property that are the seeds of huge growth opportunities. Building on the National Intellectual Property Strategy announced in Budget 2018, the government proposes to further support Canadian innovators, start-ups, and technology-intensive businesses. Budget 2021 proposes:

- \$90 million over two years, starting in 2022-23, to create ElevateIP, a program to help accelerators and incubators provide start-ups with access to expert intellectual property services.
- \$75 million over three years, starting in 2021-22, for the National Research Council's Industrial Research Assistance Program to provide high-growth client firms with access to expert intellectual property services.

These direct investments would be complemented by a Strategic Intellectual Property Program Review that will be launched. It is intended as a broad assessment of intellectual property provisions in Canada's innovation and science programming, from basic research to near-commercial projects. This work will make sure Canada and Canadians fully benefit from innovations and intellectual property.

Growing Canada's Life Sciences and Bio-manufacturing Sector

Growing Canada's life sciences and bio-manufacturing sector is a priority that goes beyond responding to COVID-19. This is an important component of Canada's plan to build domestic resilience and improve long-term pandemic preparedness It is also a growing sector that supports thousands of good, middle class jobs.

Budget 2021 proposes to provide a total \$2.2 billion over seven years, towards growing a vibrant domestic life sciences sector. This support would provide foundational investments to help build Canada's talent pipeline and research systems, and support the growth of Canadian life sciences firms, including with \$1 billion of support to Canadian firms through the Strategic Innovation Fund. This package also includes the creation of a new Clinical Trials Fund to support the research and development of new scientifically proven treatments and cures and create good jobs in the health research sector, including the pharmaceutical sector. This is important work to restore capabilities that have been lost and support the innovative Canadian firms and jobs in this sector.