



National  
Defence

Défense  
nationale



CANADIAN  
ARMED FORCES

# DEFENCE INVESTMENT PLAN 2018

## Annual Update 2019

Ensuring the Canadian Armed Forces is well-equipped and well-supported



**STRONG  
SECURE  
ENGAGED**

**PLAN  
DELIVER  
ENABLE**

Canada



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# MESSAGE FROM THE MINISTER OF NATIONAL DEFENCE

I am pleased to present the first annual update to Defence Investment Plan 2018. The Investment Plan provides important direction to guide how National Defence funding is managed and spent. This Annual Update 2019 reflects the progress that the Defence Team has made on investments in key equipment, infrastructure, and services over the past year. It continues to deliver on our commitment in *Strong, Secure, Engaged: Canada's Defence Policy* to provide Canadians with greater transparency on defence spending and more information on our government's defence investments.

We have made steady progress since the defence policy was announced in June 2017. At its core, the policy is about caring for and supporting our members in uniform. Investing in the Canadian Armed Forces is integral to doing that. By ensuring that the Canadian Armed Forces has the capabilities and infrastructure to excel across the full spectrum of military operations, we are enabling our people to succeed in a complex security environment.

This update highlights important work being done to improve the defence procurement process, streamline its governance, and strengthen information management and information technology to continue to deliver results for Canadians. It also draws attention to the work that we are doing to equip members of the Defence Team with the knowledge and training required to manage the business of defence effectively.

Improving how Defence does business will ensure that our military gets the equipment and facilities that it needs when it needs it, while providing value for money and ensuring economic benefits for Canada. Ultimately, this allows the Defence Team to meet Canada's defence needs now and into the future.



A handwritten signature in blue ink, reading "Harjit S. Sajjan".

The Honourable Harjit S. Sajjan PC, OMM, MSM, CD, MP  
Minister of National Defence

# MESSAGE FROM THE DEPUTY MINISTER OF NATIONAL DEFENCE AND THE CHIEF OF DEFENCE STAFF

Since the release of *Strong, Secure, Engaged: Canada's Defence Policy* two years ago, the Department of National Defence and the Canadian Armed Forces has launched processes to equip our people with the tools they need, invested in new defence facilities across the country, and established innovative partnerships so that we are prepared for today's threats and those that lie ahead.

National Defence is also keeping Canada's defence and security industries informed of future investment opportunities that will generate jobs and economic growth across the country. Cooperation with industry enhances the Forces' ability to deliver on its mandate with core military capabilities, and it provides employment to Canadians.

As good stewards of public funds, each edition of the Investment Plan will share the latest available data to reflect changes in the spending profile. These changes reflect National Defence's iterative planning process. Over the next 10 years, National Defence will be increasing annual defence spending by almost \$33 billion — an increase of more than 70%.

The 2019 annual update of Defence Investment Plan 2018 offers Canadians a comprehensive view on hundreds of projects and contracts. These projects and contracts — for investments in capital equipment, information management and information technology, infrastructure, and services — will enable the Forces to keep Canadians safe and to support our allies and partners abroad.

The publication of the Investment Plan in 2018 was a demonstration of our commitment to deliver a higher standard of openness, transparency, and accountability. This annual update reinforces that commitment by providing Canadians with a timely report on how these investments are funded, managed, and executed with public resources.



A handwritten signature in blue ink that reads "Jody Thomas".

Jody Thomas  
Deputy Minister



A handwritten signature in blue ink that reads "Jonathan Vance".

General Jonathan Vance  
Chief of the Defence Staff





# INTRODUCTION

People are at the core of everything that the Canadian Armed Forces does to deliver on the Defence mandate. At any given time, the Government of Canada can call on the Forces to undertake missions to protect Canada and Canadians and to maintain international peace and stability. To ensure that the Canadian Armed Forces is equipped to succeed on operations and have the right facilities and support, National Defence must first have strong capability and investment planning.

Defence policies, programs, and activities are informed by the evolving security environment in which the Canadian Armed Forces operates. Canada's defence policy, Strong, Secure, Engaged, identifies 3 broad trends that will continue to shape the modern security environment: the evolving balance of power, the changing nature of conflict, and the rapid evolution of technology.

The uncertainty and volatility of the security environment, the evolution of technology, and the time required for the development of the people, equipment, systems, and methods that comprise military capability require consistent, sustained, and predictable investment. As part of modern military planning, National Defence must also look to the future security environment, identifying capability requirements on a continual basis to ensure that the Canadian Armed Forces is properly positioned to meet Canada's defence needs. This includes keeping pace with new technologies and ensuring that old and new systems are compatible. National Defence must also ensure that equipment remains compatible with that of Canada's allies.



# PART I

## 1.1 DEFENCE INVESTMENT PLAN

The Defence Investment Plan will be published every 3 years, following approval of a technical Investment Plan by the Treasury Board. The purpose of Investment Plan annual updates is to inform on the progress in delivering capital investments that will enhance the Forces' capabilities and capacity.



The Maritime Helicopter Replacement project includes the delivery of 28 state-of-the-art, combat-capable CH-148 Cyclone helicopters. The Cyclone is a world-class maritime helicopter that is capable of a full range of operations, including anti-submarine warfare, anti-surface warfare, search and rescue, and utility missions.

In January 2019, the Cyclone completed its first operational deployment: it was embarked in HMCS Ville de Québec for Operation REASSURANCE. In early 2019, the Royal Canadian Air Force took delivery of the 16th and 17th Cyclones. Together, the Royal Canadian Air Force and the Royal Canadian Navy continue to work closely with our NATO Allies and international partners to enhance maritime security by delivering effects on, above, and below the sea.

## 1.2 INVESTING IN CANADA'S DEFENCE

The new Defence funding model introduced with the defence policy makes significant improvements to the financial transparency of the defence budget, clarifying how funds are managed and spent. Additionally, simplifying the procurement process, having the appropriate level of approval relative to the size and cost of a project, and investing in procurement professionals supports the timely delivery of capabilities.

The Capital Investment Fund (CIF), part of the new funding model, is a dedicated source of funds that matches the accrual profile of National Defence's existing and planned capital assets. This funding can be used to mitigate risks within other projects, provide funding for new projects, or to adjust for changes in scope to existing projects. (Year-to-year management of the CIF is explained in some detail in the following section 1.2.1.)

For example, in November 2018, the Royal Canadian Navy received approval to move ahead with construction of the sixth Arctic and Offshore Patrol Ship (AOPS) that was previously optional in the contract. The decision was made possible after adequate funding was available for the acquisition of the ship.

National Defence requests funding through the Estimates process, once the appropriate project approvals have been obtained, and as it is required to deliver on policy commitments.

As part of its prudent management of public funds, National Defence only requests funding that can be reasonably spent in a given fiscal year; additional





The Arctic and Offshore Patrol Ships (AOPS) project is well underway. The launch of the first ship, the future HMCS Harry DeWolf, took place in September 2018. In November 2018, the government confirmed the Royal Canadian Navy will receive the sixth ship. A modified production schedule was also approved.

The Harry DeWolf-class will bolster the Navy's presence in the Arctic and its ability to operate globally with a renewed focus on surveillance and patrol of maritime borders.

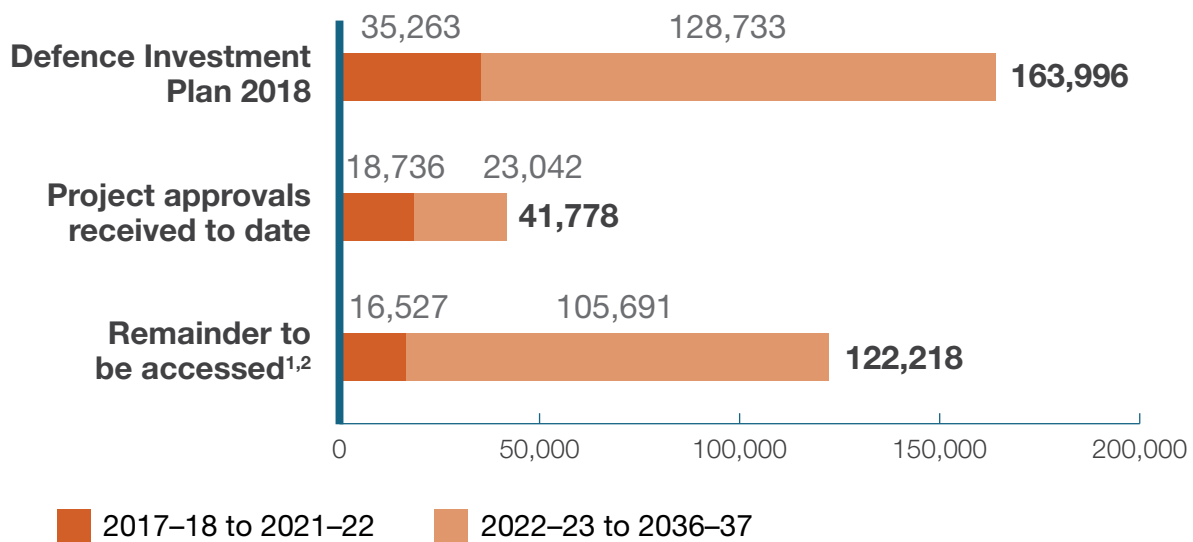
AOPS continues to create social and economic benefits for Canadians and sustains hundreds of highly-skilled jobs in shipbuilding.

funding, when needed, is requested through Supplementary Estimates. Moreover, capital funding that remains to be accessed is not lost to National Defence; rather, it will be drawn from the CIF when it is needed.

It is anticipated that National Defence will seek project authorities for more than 40 capital projects through the project approval process, through to the 2021-22 fiscal year.

On a cash basis, the revised spending profile is based on annual funding approved through the Main Estimates. In the first two years of the defence policy, National Defence was granted project authorities totaling \$41.8 billion to execute investments in capabilities. From that planning period, National Defence has \$122.2 billion available to access through new project authorities, as indicated in Table 1.

**Table 1: Capital Actual and Planned Spending 2017–18 through 2036–37 on a Cash Basis (\$millions)**



**Bold numbers denote total 20-year plan.**

<sup>1</sup> Funding in the fiscal framework that will be accessed once project and expenditure authorities are granted and funding is needed.

<sup>2</sup> Funding not accessed in 2017–18 and 2018–19 will be accessed in future years.

## 1.2.1 CAPITAL INVESTMENT FUND MANAGEMENT

Major capital investments, like ships and buildings, span multiple years. Defence funding reflects a life-cycle approach for both current and future major equipment and infrastructure requirements. This funding is managed on an accrual basis, taking into account the full costs of use over the expected life of the equipment.

**LIFE-CYCLE APPROACH:** Estimates all costs over the entire useful life of a capital asset. A life-cycle cost estimate is comprised of four types of costs: project development and acquisition, operating, sustainment, and disposal.

**ACCRUAL BASIS:** costs of acquiring an asset are spread over its useful life — not just at the time that bills are paid.

**CASH BASIS:** costs for the acquisition of capital assets and associated operating costs are booked immediately in the year the cash disbursement is made.

Accrual accounting better reflects actual fiscal impacts over time. However, reporting on a cash basis gives

parliamentarians, industry, and other stakeholders a clearer sense as to the timing and estimated costs of acquisitions. National Defence plans its capital investments on an accrual basis; however, its year-to-year funding is managed on a cash basis.

Through the normal course of defence financial planning, the spending profile will change from year to year. This reflects that National Defence is using the flexibility of the new funding model to effectively manage investments, including a variety of factors that affect project costing.

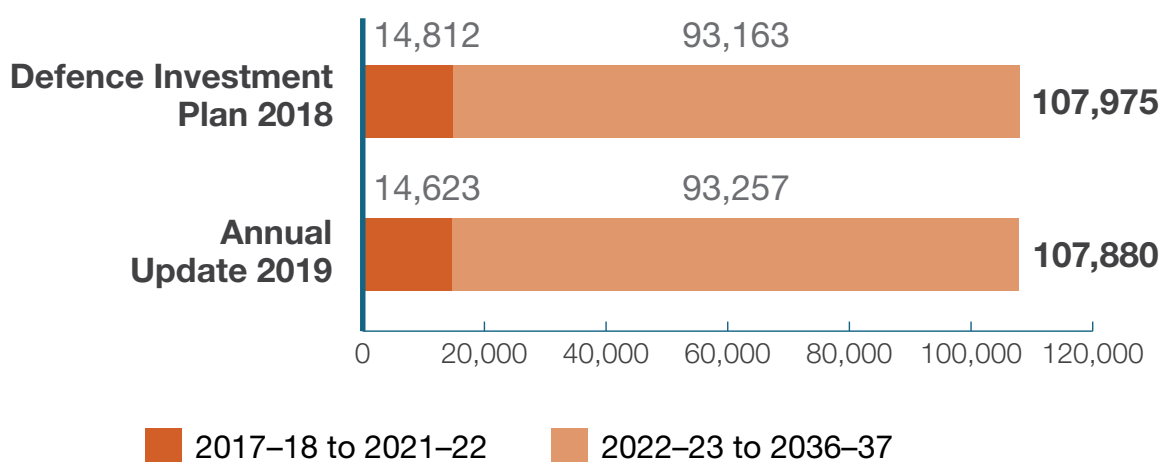
On an accrual basis, both the 20-year plan and the 5-year plan for the CIF remain relatively stable at \$108 billion and approximately \$15 billion respectively. Table 2 shows the updated 20-year and 5-year plans.

## 1.2.2 DEFENCE CAPABILITIES BLUEPRINT

The Defence Capabilities Blueprint (DCB) is an interactive online tool that provides industry access to information about defence investment opportunities needed to support planning for research and development, and to develop strategic partnerships based on projected needs of the Forces.

The DCB includes approximately 240 projects and contracts for major capital equipment, information technology, and infrastructure investments over \$5 million and support contracts over \$20 million.

**Table 2: Capital Actual and Planned Spending**  
2017–18 through 2036–37 on an Accrual Basis (\$millions)



Bold numbers denote total 20-year plan.

The DCB focuses on planning and implementation for funded projects. The funding ranges shown in the DCB are based on the acquisition costs for projects, which also includes project management, infrastructure, contracts, and contingency.

Since the release of Defence Investment Plan 2018, the DCB has been updated to provide the latest available

information. Several additional updates have added value to the database and improve the user experience. These include a What's New feature with recent DCB updates, listing Canada's Key Industrial Capabilities (KICs) on project pages, and links to applicable project websites.



National Defence continually analyzes the future security environment to identify capabilities that the Forces will need to meet Canada's defence needs.

Since the publication of Defence Investment Plan 2018, the Automatic Identification Technology (AIT) project has been identified as a key capability. AIT will support the timely and accurate input of materiel management data for the acquisition, storage, maintenance, and

consumption of assets. It will also drastically reduce manual data-entry, improve data accuracy, enable timely and in-situ processing of transactions, and support a reduction in inventory levels over time by avoiding the purchase of excess stock or running out of critical stock.

The AIT project completed the identification phase in November 2018, and moved into options analysis in early 2019. The project is now identified in the Defence Capabilities Blueprint in the range of \$100 million to \$249 million. Funding from the Capital Investment Fund was secured for this project as a result of efficiencies in National Defence's contract performance, contingency demand, and expenditures. This new capability will enhance operational support and improve the accuracy of National Defence corporate reporting by improving near real-time asset visibility.





# PART II

## 2.1 TRANSFORMING THE WAY DEFENCE WORKS

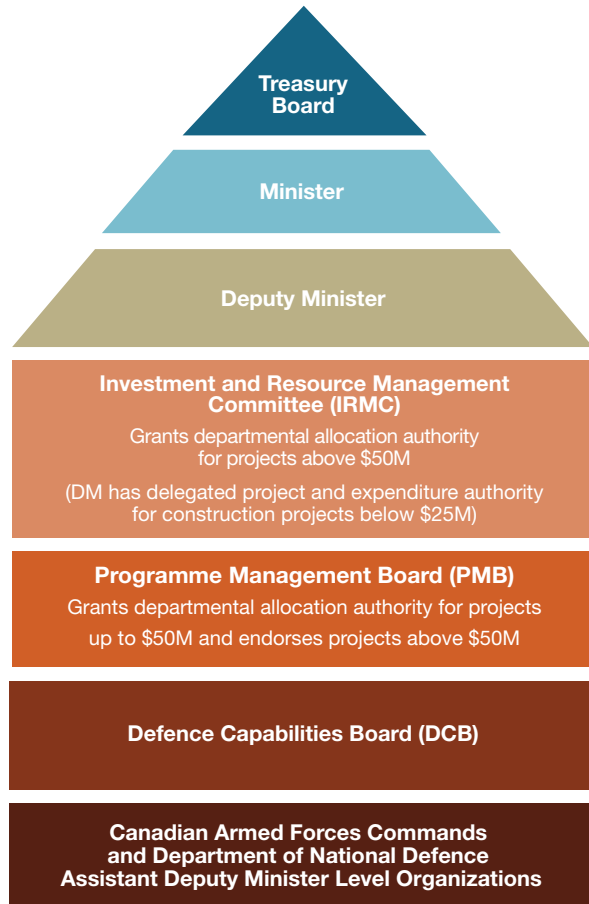
By analyzing and updating processes, National Defence is better able to execute projects, maintain timelines, and mitigate issues that could cause delays. A more streamlined approach facilitates management of the investment portfolio, efficient resource allocation, timely and informed decisions, and strengthened performance measurement, monitoring, and oversight of all projects. As seen in Defence Investment Plan 2018, the Defence Team is exploring what it can do better and what it should do differently. The Investment Plan communicates some important changes to how investments are approved and governed.

### 2.1.1 STREAMLINED GOVERNANCE

National Defence has improved its governance and oversight of investments to meet the priorities and objectives of investment planning. The processes and governance structures established to oversee this portfolio are appropriate for the complexity and risks associated with the investments. Since the publication of Defence Investment Plan 2018, National Defence has initiated several measures to improve its investment management and governance.

Recent changes to the Investment and Resource Management Committee include streamlined membership and adoption of a secretarial approval process to enable timelier decision-making. The Programme Management Board, which approves investment proposals between \$5 million and \$50 million, has seen some recent changes. These include standardizing the format for approvals to support informed decision-making as well as a more decision-oriented approach to enhance the focus on programme delivery.

**Figure 1:** Project Authority Approval Levels for Capital Projects



The Independent Review Panel for Defence Acquisition, while not part of the formal approval process, provides independent advice to the Minister of National Defence on all major procurement projects (valued at over \$100 million), prior to seeking Treasury Board approval or exercising the Minister's expenditure authority.

Of interest to industry partners, National Defence is reviewing, and adjusting as needed, the project approval process and supporting policy tools. The underlying principle is to reflect and support best practices in project management according to the type and complexity of projects.

Additionally, National Defence continues to improve its affordability assessment process that supports governance and decision-making. Affordability of the capital programme is assessed on the basis of 2 cost requirements: (1) acquisition and development; and (2) incremental operating, sustainment, and disposal. A source of funds is identified for each requirement prior to a project proceeding for approval by either the Minister of National Defence or Treasury Board.

## 2.1.2 OPTIMIZING PROCUREMENT

*Strong, Secure, Engaged* provided a road map for defence procurement by outlining Canada's defence priorities and providing the funding necessary to meet those needs now and into the future. National Defence manages over 12,000 contracts and spends up to \$6 billion dollars annually on its capital programme. These contracts range from small capital equipment projects to large, complex acquisitions. In May 2019, contracting authorities for competitive services contracts increased from \$1 million to \$5 million. This is a significant step in streamlining the procurement process, allowing National Defence to handle over 80% of contracts in-house.

Successful investment in defence capabilities is contingent on improving the way that National Defence does business. Overall, 90% of procurements are delivered within their planned scope and budget.

National Defence is also working with Public Services and Procurement Canada (PSPC) as it looks to accelerate procurement through a risk-based pilot project. This allows PSPC to execute low-risk, low-complexity contracts on behalf of National Defence without going to Treasury Board.

Overall, National Defence is updating its procurement processes to reflect that "one size does not fit all." Instead, National Defence will execute the best



The Protecteur-class, future Joint Support Ships (JSS), will consist of two new replenishment ships for the Royal Canadian Navy. The JSS will support operations at sea and ashore — whether they are combat, humanitarian, or disaster relief. These ships will support Naval Task Groups by delivering fuel and other vital supplies to vessels at sea. They will also possess facilities for the operation and maintenance of helicopters as well as areas to offer personnel at sea medical and dental services.

Construction of the ships began in June 2018. In February 2019, the Government of Canada agreed to resequence the ship delivery schedule, which will result in the first JSS being delivered in 2023. At its peak, work on the JSS project will help sustain an estimated 1,000 highly skilled shipbuilding jobs in Canada.

procurement process for each project or contract, ensuring the best strategy is selected.

A key feature of the majority of projects and contracts is the Government of Canada's Industrial and Technological Benefits Policy (ITB). This policy requires that for every dollar the government spends on major defence purchases, the winning contractor must put a dollar back into the Canadian economy.

Through the ITB Policy, Canada has seen the creation of new jobs and increased economic growth.

## 2.1.3 GENDER-BASED ANALYSIS PLUS

*Strong, Secure, Engaged* makes a firm and public commitment to integrate Gender-based Analysis Plus (GBA+) in all Defence activities. This includes the hundreds of projects and contracts outlined in Defence Investment Plan 2018. National Defence continues to work hard to ensure that the Defence Team is trained in applying GBA+ to integrate gender and diversity perspectives effectively in decision-making



Through *Strong, Secure, Engaged*, the Government is investing in a strong and capable Reserve Force. Completed in August 2018, the new Willow Park Armoury in Halifax is now home to three Army Reserve units and a recruitment office. It is also demonstrative of the Government of Canada's investment in modern, functional, and green defence infrastructure.

The project was completed on time and under budget, and provided significant economic opportunities for the local Halifax community by creating an estimated 250 jobs during construction.

across all business lines. Since 2018, the Joint Responsibility Centre for GBA+ has provided strategic advice to numerous investment projects, resulting in real changes to how National Defence procures materiel, designs infrastructure and information management projects, and enhances and modernizes military capabilities. For example, GBA+ is also used in combination with the Canadian Forces Anthropometric Survey data to ensure that the human-machine interface with vehicles and equipment is considered in a manner that accommodates the wide diversity in body shapes, weights, and sizes of Canadian Armed Forces members.

The Defence Team is using GBA+ to support economic opportunities for women, visible minorities, and Indigenous peoples. This is achieved through several means, including the consideration of supplier diversity, identifying opportunities to adapt procurement procedures, and encouraging suppliers to provide gender and diversity plans when bidding on projects. National Defence continues to work with other federal government partners to identify further mechanisms that can be put in place to encourage the defence industry to reduce inequality in their own workforces.

## 2.1.4 DATA AND ANALYTICS

National Defence is exploring the use of new analytic technologies to model investment portfolio impacts better. These technologies will allow for qualitative assessments of the impact of changes in economic factors, scheduling, and scope on the entire portfolio.

To drive this modernization and become more data-driven, National Defence has appointed a senior executive to lead Data, Innovation and Analytics. This organization drives collaboration across National Defence and with other federal departments and agencies. In addition to enabling improved business intelligence, providing a gateway to digital transformation, and support to operations, new analytics tools, as illustrated in Figure 2, will enable better modeling of investment portfolio impacts.

**Figure 2:** Defence Analytics Initiatives





# PART III

## 3.1 ENSURING CAPABILITY AND CAPACITY: PROJECT PROGRESS

As explained in previous sections, concerted efforts are being made to streamline defence procurement, improve the timely acquisition of much needed military capabilities, and deliver the overall defence capital programme.

National Defence has made notable progress in advancing 333 capital projects in support of *Strong, Secure, Engaged* — inclusive of the major equipment, information management and information technology, and infrastructure projects included in Defence Investment Plan 2018. As of April 2019, 86 or 26% of the projects are in close-out or have been completed, as shown in Figure 3a.

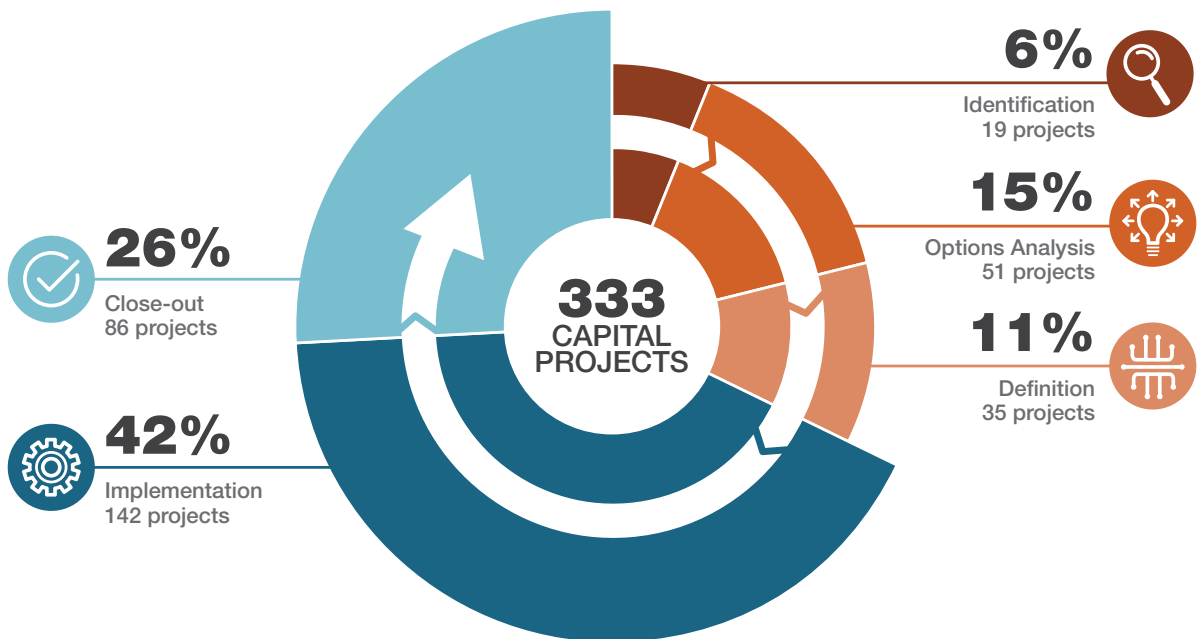
Figure 3a: SSE Capital Projects by Phase

**68%**  

228 projects in implementation or closed out

   **32%**

105 projects in pre-implementation



Capital projects start in identification and advance through phases to close-out.

The success of current efforts in that respect is demonstrated by the numbers of projects moving through the project management cycle. Adaptation is essential for any business model, no less the business of defence. Since the launch of *Strong, Secure, Engaged*, 157 of the 333 capital projects, or 47%, have passed through a significant phase of approval and into a new phase, as shown in Figure 3b.

### 3.1.1 ACHIEVEMENTS AND MILESTONES

As highlighted throughout this annual update, National Defence has made steady progress on many major defence projects. Below are several more achievements and milestones from across the Defence Team since the publication of Defence Investment Plan 2018.

Figure 3b: SSE Capital Projects Are Advancing




DEFINITION

## FUTURE FIGHTER CAPABILITY PROJECT

Canada will purchase 88 advanced fighter aircraft to contribute to the safety and security of Canadians and to meet Canada’s international obligations. A modern fighter jet fleet is essential for defending Canada and Canadian sovereignty and contributing to NORAD and NATO commitments.

The Future Fighter Capability Project is the most significant investment in the Royal Canadian Air Force in more than 30 years. A draft Request for Proposal (RFP) was released to all eligible suppliers in October 2018. A second draft is now out for feedback. The final RFP will be released in summer 2019.

Aerospace is one of the most innovative and export-driven industries in Canada and adds \$28 billion annually in gross domestic product to Canada’s economy. Together, Canada’s aerospace and defence industries contribute over 240,000 jobs.


DEFINITION

## CANADIAN SURFACE COMBATANT

The Canadian Surface Combatant project is the largest, most complex procurement undertaken by the Government of Canada. In February 2019, the Government of Canada announced it had officially selected the BAE Systems Type 26 Global Combat Ship design for 15 new warships. The design will be further customized to meet Canada’s requirements and to incorporate Canadian systems and equipment. Construction is set to begin in the early 2020s.

The Canadian Surface Combatant project creates well-paying stable employment within the defence industry across the country and benefits the economic prosperity of Canada’s coasts and waterways.





IMPLEMENTATION

## INTERIM FIGHTER CAPABILITY PROJECT

In order to fulfill immediate needs, the Government of Canada signed a procurement agreement in November 2018 with the Government of Australia for 18 F-18 fighter aircraft (and spare parts). The interim fighter fleet is key to ensuring that the Royal Canadian Air Force can continue to fulfill its missions and meet domestic and international obligations to ensure the safety of Canadians and Canada.

The aircraft are the same type as Canada's current CF-18 fleet and can therefore be integrated quickly into the fleet. The first two aircraft arrived in Canada in February 2019, and deliveries will continue at regular intervals for three years. The aircraft will be employed at 3 Wing Bagotville, Quebec, and 4 Wing Cold Lake, Alberta.



IMPLEMENTATION

## JOINT TASK FORCE X FACILITY

Joint Task Force X (JTF X) provides human intelligence capabilities in support of military operations and is critical to predicting and preventing threats to members of the Canadian Armed Forces on operations. Human intelligence operations include a range of activities, such as source handling, interrogation, and debriefing.

The new home of JTF X — officially opened in October 2018 — honours the memory of Sir William Samuel Stephenson, distinguished Canadian war hero and the first Colonel-Commandant of the Canadian Armed Forces Intelligence Branch.

This infrastructure project created over 200 jobs during the construction period, in addition to economic development opportunities for local businesses and communities.



IMPLEMENTATION

## INTEGRATED SOLDIER SYSTEM PROJECT

As highlighted in Strong, Secure, Engaged, technology is a critical enabler of modern military forces and fundamental to Canadian Armed Forces operations. The Integrated Soldier System Project (ISSP) is cutting-edge

technology that significantly enhances soldiers' situational awareness, allowing them to digitally visualize the location of other connected soldiers.

The project is being delivered in 3 phases: (1) delivery of wearable vests with integrated communications equipment and accessories, (2) connection and integration of equipment into Canadian Army vehicles, and (3) incorporation of new technology. The first supply of operational equipment for soldiers was delivered to 3rd Battalion, The Royal Canadian Regiment in Petawawa in July 2018.



# CONCLUSION

*Strong, Secure, Engaged* outlines Canada's defence priorities on a 20-year horizon and provides the funding necessary to meet Canada's defence needs now and into the future. As Defence Investment Plan 2018 explains, new investments in National Defence will empower an agile, multi-purpose, combat-ready military that is operated by well-trained, well-equipped, and well-supported members of the Forces. These investments are essential to supporting members of the Forces, whether they are defending our sovereignty at home or demonstrating leadership on the global stage.