Canadian Space Agency
2024–25 Departmental plan

Canadian Space Agency | Agence spatiale canadienne

Canada

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Canadian Space Agency 2024–25 Departmental plan

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From the Minister

It is my pleasure to present the 2024–25 Departmental Plan for the Canadian Space Agency (CSA), which lays out the key priorities the CSA is working to advance the benefits of space to all Canadians. In 2024–25, the CSA will continue working with the Innovation, Science and Economic Development (ISED) portfolio organizations and other federal partners to bolster Canadian innovation by fostering competitive, sustainable, and inclusive economic growth.

As the world is preparing to go further and deeper into space, Canada is leading the way with contributions of world-class space robotics. Canada is preparing to become the second country in the world to send an astronaut to the Moon with the historic Artemis II mission. The state of the art Canadarm3 robotic arm and forthcoming lunar rover and utility vehicles are examples of the CSA's contributions to future Moon exploration missions.

Space data will continue to be utilized to improve the health and lives of Canadians. In 2024–25, the CSA will continue the RADARSAT + initiative, to ensure continuity and eventual replacement of the RADARSAT Constellation Mission (RCM) and to help ensure that we can continue to benefit from the variety of services to Canadians made possible by satellites. Securing the continuity of satellite data is essential to ensure Canadians are ready in the face of climate change, natural disasters, emergency response and national security threats.

On the International Space Station (ISS), the CSA will continue to support health studies which aim to understand and eradicate health issues common to both Canadians and astronauts.

The space sector is also propelling the Canadian economy forward. In 2024–25, the CSA will continue supporting organizations through the Space Technology Development Program (STDP) to develop new space technologies. By providing opportunities to young professionals and small and medium enterprises (SMEs), the CSA aims to empower and push forward innovative ideas and technologies with strong commercial potential. The CSA is making space accessible to young students by working with educators across the country, reaching over 130,000 youth in 2024–25. The CSA will also be providing hands-on experience to over 40 projects of young researchers and students through the Flights and Fieldwork for the Advancement of Science and Technology (FAST) funding initiative, creating a path for a new generation of space scientists.

We invite you to read this report to learn more about how the CSA is working with Canadians of all backgrounds and in all regions—urban and rural—to position Canada as a leader in the global economy.

Minister of Innovation, Science and Industry

The Honourable François-Philippe Champagne

Plans to deliver on core responsibilities and internal services

Core responsibilities and internal services:

- Canada in Space
- Internal services

Canada in Space

In this section

Description

The Canadian Space Agency coordinates the space policies and programs of the government of Canada; ensures that other government departments and agencies have access to space data, information, and services to deliver on their mandate; plans, directs and manages projects relating to scientific or industrial space research and the development of space science and technology; promotes the transfer and diffusion of space technology to and throughout the Canadian industry; and encourages the commercial exploitation of the space capabilities, technology, facilities and systems. The Canadian Space Agency also aims to build Canada's capacity and engage the next generation of space scientists and engineers and provide opportunities to inspire young people to develop the required skills and to pursue studies and careers in science, technology, engineering and mathematics (STEM).

Quality of life impacts

As more countries realize the socio-economic importance of space, the CSA seeks to maintain Canada's standing as a world-leading space-faring nation. Space fosters a sense of pride amongst Canadians, but more importantly it provides significant societal benefit. Technological advancements in space can help improve food security and meet healthcare needs across the country. Space data is also vital for understanding our environment and making informed decisions regarding climate change adaptation and emergency response to natural disasters. Moreover, by inspiring young people to pursue STEM careers and providing them with opportunities for hands-on experiences, the CSA can contribute to the development of a highly skilled workforce. This in turn will help foster the prosperity and growth of Canadian firms and have a positive impact on the country's gross domestic product per capita.

Results and targets

The following tables show, for each departmental result related to Canada in space, the indicators, the results from the three most recently reported fiscal years, the targets and dates approved for 2024–25.

Table 1: Indicators, results and targets for departmental result

Indicator	2020–2021 result	2021–2022 result	2022–2023 result	Target	Date to achieve
Ranking of Canadian Government civil space budget as a share of Gross Domestic Product (GDP) among Organisation for Economic Co-operation and Development (OECD) and Brazil, Russia, India, China (BRIC) nations	23 (2019)	27 (2020)	22 (2021)	22	March 31, 2025
Canada's rank among Organisation for Economic Co-operation and Development (OECD) nations on the citation score of space-related publications	17 (2019)	15 (2020)	20 (2021)	13	March 31, 2025
Number of services offered to Canadians dependent on space data	111 (2020)	101 (2021)	101 (2022)	115	March 31, 2025
Number of Canadian space technologies adapted for use on earth or re-use in space	23 (2019)	25 (2020)	41 (2021)	37	March 31, 2025
Number of employees in the Canadian space sector	10,541 (2019)	10,868 (2020)	11,629 (2021)	12,000	March 31, 2025
Value of Gross Domestic Product (GDP) of the Canadian space sector	$2.5B (2019)	$2.7B (2020)	$2.8B (2021)	$2.8B	March 31, 2025

The financial, human resources and performance information for the CSA's program inventory is available on GC InfoBase.

Plans to achieve results

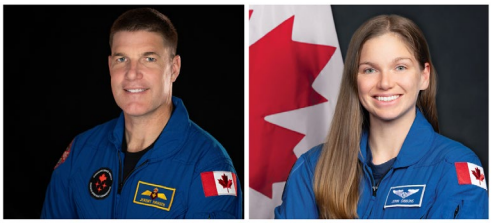
Canada remains a leading space-faring nation

Remaining a leading space-faring nation is essential to the achievement of the CSA's core responsibility. To this end, the CSA has a wide range of projects and initiatives from low Earth orbit, to the Moon and beyond to ensure Canada's presence in space.

From low Earth orbit…

Canada has been a proud partner in the International Space Station (ISS) since the program's inception in 1986 and will extend its support through 2030. The CSA will continue to operate Canadarm2 and undertake science and technology research on board the station which involves 220 highly qualified personnel each year. The CSA will also prepare for Joshua Kutryk's participation in NASA's Starliner-1 mission, the fourth long-duration mission in 2025 of a Canadian astronaut to the ISS.

Destination Moon: Artemis II



Scheduled to launch in 2025, aboard the Orion spacecraft, Jeremy Hansen will make history as the first Canadian astronaut to fly around the Moon.

Canadians will be able to follow this exciting mission through the CSA's website and social media as it inspires people across the country to reach for the stars.

Jenni Gibbons will serve as the Canadian backup astronaut for the Artemis II mission. Jenni's role will be instrumental in shaping and validating astronaut training and processes for upcoming lunar missions.

… to the Moon…

Countries across the globe are working on plans to build the Lunar Gateway, an outpost in the vicinity of the Moon that will serve as a stepping stone for deep-space exploration. Building on Canada's space robotics legacy, Canadarm3 will be able to maintain, repair and inspect the Gateway, capture visiting vehicles, relocate Gateway modules, help astronauts during spacewalks and enable scientific work in lunar orbit.

Key essential components on the Lunar Gateway are the Gateway External Robotics Interfaces (GERI), which will enable the Canadarm3 to move around the Gateway while supplying power, data, and video connection to the robotics element and any attached payloads. Those fixtures will be installed on the first two Gateway modules to be launched in 2025, namely the Power and Propulsion Element (PPE) and the Habitation and Logistics Outpost (HALO) and will be installed on additional modules afterwards.

By 2024–25, more than 500 highly qualified personnel will be working on the Canadarm3 project, and they will continue to do so up until its planned launch in 2028.

In return for its contribution to the Gateway, Canada received a range of benefits, including the chance to participate in the historic Artemis II mission, making Canada the second country to have an astronaut fly around the Moon. The first of its kind since the Apollo era, the Artemis II mission will be a major step toward the return of humans to the lunar surface.

Canada's participation in the Gateway is also generating opportunities for lunar science, technology demonstration, and commercial activities. To ensure that Canada's other areas of strength, such as artificial intelligence, robotics, science, and health are well positioned to benefit from those opportunities, the CSA has put in place the Lunar Exploration Accelerator Program (LEAP). The program

aims to foster collaboration and technological advancement in space exploration while supporting research and development projects related to lunar exploration.

A key flagship under LEAP, the CSA's lunar rover will be Canada's first rover on the Moon and will aid in the search for water ice, crucial for future human space exploration. The mission came about through a collaboration between NASA and the CSA, with the Canadian rover carrying scientific payloads, including Canadian and U.S. instruments. By acting as the eyes and hands of scientists, rovers provide valuable data on different lunar locations, helping us understand essential resources and paving the way for long-term lunar presence and further space exploration. LEAP portfolio projects are projected to support 15 Canadians organizations and contribute to the advancement of 24 technologies by 2026–27.

The CSA will also continue preparatory work on the lunar utility vehicle, with a planned launch in 2032 at the earliest. The rover will be designed to handle logistics tasks, perform science investigations, and support astronauts on the lunar surface.

… and beyond

Since the launch of the James Webb Space Telescope (JWST), the world has been mesmerized by incredible images of distant galaxies, solar systems, and planets. Optimizing Canada's allocated time, the CSA will support 30 Canadian researchers each year until 2027–28 to study distant galaxies and the formation of stars and planets and to potentially discover signs of extraterrestrial life. The results will be disseminated through up to 80 scientific publications acknowledging the CSA's support by 2027–28.

Leveraging Canada's investment in the JWST both industrially and scientifically, the CSA will participate in ESA's Ariel mission which will study the composition of exoplanets, how they formed, and how they evolve, during its 4-year mission. With a projected launch date in 2029, the CSA's participation will provide Canadian researchers with access to the data produced by the mission that is expected to lead to more than 200 publications by 2035.

The OSIRIS-REx sample capsule returned in September 2023 with its precious sample from asteroid Bennu. The Canadian OSIRIS-REx Laser Altimeter played a key role in the mission and allowed Canadian scientists to be involved in the mission. Their current research is expected to result in 30 publications by 2024–25. The CSA will continue to prepare its facilities to receive and curate a portion of the asteroid material, making Canada the fifth country in the world to receive a sample collected in space.

Through the Geospace Observatory (GO) Canada projects, the CSA will continue leveraging Canada's natural geographic advantage as a northern country to remain a world leader in the increasingly vital field of space weather, employing competitive procurement approaches to stimulate innovation and co-investment and ultimately improving our understanding of the space weather events that pose a risk to our astronauts, satellites and the reliable operation of essential infrastructure on Earth.

Space information and technologies improve the lives of Canadians

The CSA supports health studies and experiments on the ISS that advances knowledge to improve health outcomes for Canadians. Studies like TBone2, SANSORI, Wayfinding, and CARDIOBREATH, focus respectively on bone health, cranial blood pressure, neural mechanisms for balance and navigation, and

cardiovascular health. The MicroPREP project focuses on a portable lab-on-a-chip technology that can be used in both clinical and remote settings, making it possible to assess immune system state, inflammation, bone loss and radiation effects. Discoveries from those studies will be disseminated through at least 30 peer-reviewed publications acknowledging CSA funding in space health and life science between 2023 and 2027.

Earth observation in action

Earth observation (EO) satellites provide invaluable data that benefit our planet and our day-to-day lives. CSA satellites support a wide range of services such as climate change adaptation, natural disaster and emergency response, monitoring of marine and coastal ecosystems, and national security. Relying on satellite images, experts can support humanitarian efforts, sustainable development, northern navigation, and resource management worldwide.

In 2024–25, the CSA will maintain the availability and accessibility of Synthetic Aperture Radar (SAR) data with over 300,000 user requests completed annually. This work involves operating the RADARSAT Constellation Mission (RCM), and providing RADARSAT-2 data and processing services to government departments. Free access to some RADARSAT-1 and RCM data is available to public users through the Earth Observation Data Management System (EODMS).

The CSA will also continue to support the SCISAT mission and the CSA's instruments onboard other partners' satellites, contributing to valuable long-term datasets for assessing and understanding climate change. These datasets are made available to the scientific community and are accessed by researchers worldwide.

Through the continuous delivery of Earth observation satellite data to Canadians and international partners, the CSA is sharing information that is key in advancing scientific knowledge in areas such as climate change. Earth observation satellites are expected to lead to 1448 scientific publications in 2025.

To ensure Canada keeps unlocking the potential of space-based data for positive societal and environmental impact, the CSA will maintain its smartEarth initiative. Aimed at fostering collaboration among academia, industry, and government organizations to develop innovative solutions and increase the uptake of space-based data in various sectors, this initiative will also contribute to the advancement of scientific knowledge on key challenges on Earth while enhancing expertise, growth and competitiveness in Canada's space sector.

As a result of CSA's support and activities, it is expected that 115 services and datasets will be offered by the CSA and other organizations in 2024–25. These include services provided by other departments using Earth observations data, services developed by the private sector through CSA funding, and the CSA's supported mission datasets made available to Canadian researchers to advance scientific knowledge related to space and Earth.

The future of Earth observation

While the CSA benefits from the longevity of its satellites, thus contributing to maintain a sustainable space environment, we must prepare for the future and ensure that Canada's needs for Earth

observation data are met. As part of that undertaking, the CSA will continue to lead efforts with Environment and Climate Change Canada (ECCC) and Natural Resources Canada (NRCan) to further implement Canada's Strategy for Satellite Earth Observation.

In 2024–25, the CSA will continue work on RADARSAT +, a key component of the Strategy for Satellite Earth Observation. This initiative will ensure continuity of synthetic aperture radar (SAR) Earth observation data in Canada to maintain its wide range of benefits.

RADARSAT +

On October 18, 2023, the Government announced the allocation of $1.012 billion over 15 years to the CSA to extend the long-standing RADARSAT satellite series.

The RADARSAT + project will encompass the development of RCM replacement satellite and the design of the next generation satellite system to ensure its succession.

With a planned launch in 2029, the CSA will continue work on the WildFireSat mission along with Natural Resources Canada (NRCan) and Environment and Climate Change Canada (ECCC). Once operational, WildFireSat data will allow wildfire managers to prioritize high-risk wildfires and allocate limited suppression resources effectively. Positioning Canada as a global leader in wildfire management and research, and utilizing breakthrough technology in space, these advancements will lead to better-informed decisions, improved wildfire response, and increased protection of communities and ecosystems.

The CSA is also developing the High-altitude Aerosols, Water vapour, and Clouds (HAWC) mission on NASA's Atmosphere Observing System (AOS) satellite constellation. HAWC includes the development of cutting-edge Canadian instruments, planned to launch in 2031. Once operational, HAWC will improve society's ability to withstand and adapt to climate impacts and protect the health and well-being of Canadians by providing unprecedented observations of aerosols, clouds, convection, and precipitation. This work will help support extreme weather prediction, climate modelling, air quality monitoring, and disaster management.

The CSA will also be chairing the October 2024, meeting of the Committee on Earth Observation Satellites (CEOS), which includes representatives from various international space actors. The central priority of Canada's chairmanship of this international organization will be the potential of EO in biodiversity-related activities.

Canada's investments in space benefit the Canadian economy

Every CSA project and initiative helps ensure that investments in space benefit the Canadian economy. It is estimated that the Canadian space sector will reach a gross domestic product (GDP) of $2.8 billion and employ 12,000 people in 2024–25. To maintain the prosperity of the space sector in the coming years, the CSA will continue to support SMEs in their innovative ventures, provide hands-on experience to

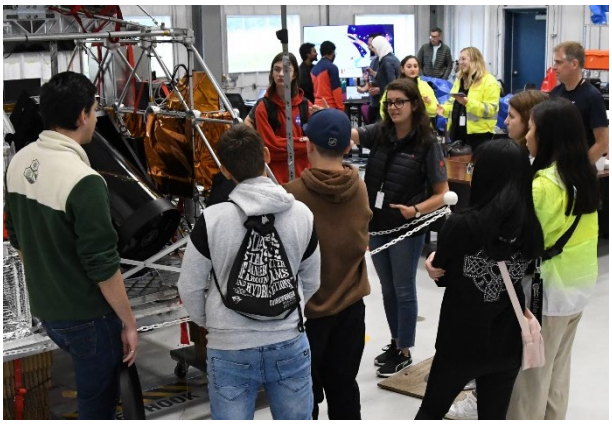
students and emerging professionals to help make them candidates of choice in the Canadian labour market, and inspire youth to pursue studies in STEM fields.

In 2024–25, the CSA will continue to prepare Canada for future space endeavours by challenging organizations to innovate and helping them gain flight heritage, demonstrate their technology, and open new markets. Through its Space Technology Development Program (STDP), which has a dedicated stream of opportunities tailored for SMEs, the CSA supports Canadian companies in developing their technologies with strong commercial potential. As well, through the ongoing Canada-ESA Cooperation Agreement, investments in selected programs will allow Canadian industry to participate in world-class missions in EO, satellite communications, space exploration, navigation, space safety, and technology development.

The Flights and Fieldwork for the Advancement of Science and Technology (FAST) funding initiative supports Canadian university research projects that provide hands-on experience in space-like missions to students and young researchers. This initiative aims to develop new scientific knowledge and space technologies, while helping to meet the demand for highly qualified personnel in the space sector. More than 40 projects supported by this initiative will be in progress in 2024–25.

In efforts to develop future space professionals, the CSA offers opportunities for students from post-secondary institutions to expand their knowledge in various space domains. This includes participation in conferences and training events at national and international levels. By giving up to 250 Canadian students the opportunity to present and validate their research at a professional level by 2025–26, this initiative helps position the Canadian space sector as a leader in space science and technology. It also serves to foster a strong professional network that will lead future collaborations in significant space projects.

The CubeSats Initiative in Canada for STEM (CUBICS) will allow nine student teams, composed of more than 285 students each year, to design, build, test, launch, and operate their own miniature satellite. The objective of the selected projects is to increase scientific knowledge and enhance understanding of climate change while also training the next generation of space experts. The predecessor to CUBICS, the Canadian CubeSat program, has allowed over 2000 students across Canada to have experiential learning on real space missions.



The CSA's stratospheric balloon campaign (STRATOS) will also continue to provide opportunities to researchers and students to test their payloads. This year's campaign will involve local and Indigenous communities in launching their own scientific payloads and will include a first payload from a local Indigenous startup.

The CSA is continuing its efforts to inspire the next generation of Canadians to reach for the stars. We are committed to informing, equipping, and empowering our youth so they can be prepared for

the jobs of the future. We are using the awe-inspiring nature of space to encourage young people to stay interested in science, technology, engineering, and mathematics, and to pursue careers in these fields. The CSA engages younger audiences in a multitude of ways, from virtual and in-person events with real experts, scientists, engineers, and astronauts, to learning activities offered to educators across the country. One part of our strategy is to create concrete opportunities for children and teens to experience and solve real space mission challenges.

In the years ahead, the CSA will be using the unique appeal of the upcoming astronaut missions to motivate young Canadians to become the next generation of scientists, engineers, and explorers. To leverage the Artemis II mission and Canada's fourth long-duration mission of a CSA astronaut onboard the International Space Station, the CSA will develop online resources and learning experiences to support educators. By working diligently with our partners and creating new collaborations, we aim to broaden our reach and to make space accessible and inclusive for all Canadians. Additionally, the CSA will continue supporting the NASA International Space Apps Challenge, the world's largest annual global hackathon, which aims to solve real-world challenges using open data from space.

Through these initiatives, the CSA aims to empower young people to become the scientists, explorers, and problem solvers of tomorrow, shaping Canada's space program. By offering 135 opportunities over the next three years, the CSA plans to reach approximately 130,000 youth who will continue pushing the boundaries of scientific discovery and innovation.

In 2024–25, the SpaceHub, CSA's collaborative innovation space for the Canadian space ecosystem will undertake its first steps in supporting an increased access to laboratories and experts while providing innovative space solutions based on the concept of fly early, fly often, fly quickly. The objective of the SpaceHub is to make the CSA the primary actor in the procurement of space services. It will provide space demonstration opportunities for SMEs' science and technology solutions to Canadian challenges and partnerships to develop collaborative R&D spaces at its headquarters with academia, industry, and partners in the government.

Key risks

In 2024–25, the CSA plans to update its Corporate Risk Profile to reassess major risks that may significantly affect its priorities, performance, and objectives across the organization. One risk already identified relates to the lack of qualified resources and challenges in filling vacant positions with properly qualified individuals. These issues can lead to a decrease in the CSA's organizational capabilities. To address this, the CSA intends to invest in recruitment, development, recognition, and retention strategies for its employees.

Another risk pertains to the CSA's Information Technology (IT) infrastructure and the potential for cyber-attacks or deliberate actions that could disrupt services or compromise confidential information. Recognizing that trust from partners and network security are crucial to achieving results, the CSA actively monitors its network for vulnerabilities and takes the necessary measures to maintain integrity.

Snapshot of planned resources in 2024–25

- Planned spending: $349,012,257
- Planned full-time resources: 492.9

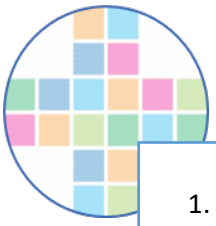
Related government priorities

Gender-based analysis plus

The action plan set out in the Evaluation of the implementation of Gender-Based Analysis Plus (GBA Plus) at the CSA will continue to be implemented in 2024–25 to further integrate GBA Plus into its internal processes and decision-making.

In 2024–25 the CSA will renew and apply its GBA Plus Policy and implementation tools, including a GBA Plus Action Plan to implement the Policy over three years (2024–27).

In 2024–25, as part of co-hosting the 2023 Space4Women Expert Meeting with the United Nations Office of Outer Space Affairs (UNOOSA), the CSA will finalize and promote the first gender mainstreaming toolkit for the space sector in collaboration with UNOOSA.



Canadian Space Agency's GBA Plus Action Plan Pillars

1. Increase accountability and shared responsibility to implement GBA Plus in all CSA activities;
2. Promote and strengthen GBA Plus as a competency through enhanced learning opportunities, resources, and tools that are made available to all CSA employees;
3. Enhance the approach for communicating and reporting on how the CSA's activities impact diverse groups of people in Canada through GBA Plus.

In 2024–25, the CSA will continue to support underrepresented groups in STEM through initiatives like the Lunar Rover Driving Academy and CUBICS. These efforts aim to provide equitable opportunities for young women and girls, Indigenous peoples, socioeconomically vulnerable individuals, racialized populations, persons with disabilities, and individuals from northern and remote communities. By promoting fairness and inclusion in the space sector, the CSA aims to create a more inclusive and representative STEM community that harnesses the full potential of talent among diverse groups in Canada, while achieving greater innovation and organizational success.

To learn more, consult CSA's 2024–25 supplementary information tables.

United Nations 2030 Agenda for Sustainable Development and the UN Sustainable Development Goals (SDG)

In 2024–25, the CSA will continue its efforts towards the achievement of environmental, social, and economic sustainability goals pursued by the Government of Canada as a whole.

Through collaboration with partners and stakeholders across the space sector, as well as industries involved in space-related activities (SDG 17), the CSA is helping to advance technological innovation in food production (SDG 2) and health (SDG 3). The CSA also strives to inspire people of all ages and backgrounds to pursue space-related careers (SDG 4–5), and improve access to and provision of key environmental data (SDG 13) while implementing equitable and sustainable internal processes (SDG 10-12-13).

Leveraging Canada's position as a space-faring nation, the CSA will continue to improve the quality of life of Canadians while contributing to Canada's equitable and sustainable prosperity.

More information on the CSA's contributions to Canada's Federal Implementation Plan on the 2030 Agenda and the Federal Sustainable Development Strategy can be found in our Departmental Sustainable Development Strategy.

Program inventory

Canada in space is supported by the following programs in the program inventory:

- Space Exploration
- Space Utilization
- Space Capacity Development

Supporting information on planned expenditures, human resources, and results related to CSA's program inventory is available on GC InfoBase.

Internal services

In this section

Description

Internal services are the services that are provided within a department so that it can meet its corporate obligations and deliver its programs. There are 10 categories of internal services:

- management and oversight services
- communications services
- legal services
- human resources management services
- financial management services
- information management services
- information technology services
- real property management services
- materiel management services
- acquisition management services

Plans to achieve results

To support the successful implementation of the priority projects and missions outlined in the departmental plan, the CSA is continuously developing its organizational capabilities. Over the next three years, the CSA is committed to attracting the best talent, developing it, and equipping it with advanced tools to deliver impactful results.

A key aspect of the CSA's efforts revolves around digital transformation. The CSA is embracing emerging technologies, automating processes, and exploring the potential of artificial intelligence. This commitment to innovation ensures that the CSA remains at the forefront of scientific advancements and technological capabilities. The adoption of digital solutions facilitates efficient workflows, streamlined operations, and enhanced data analysis, further bolstering the CSA's ability to deliver projects effectively and support evidence-based decisions and accountability. To support those digital changes and the continually evolving workplace, the CSA is implementing a three-year Information Management Plan to continue improving the life cycle of data and information.

In addition to maintaining a strong corporate security posture through its three-year Departmental Security Plan and robust security governance, the CSA will also focus on cyber and global security of space missions by collaborating with the Canadian space ecosystem, international standards organizations, and other space agencies. This collaboration will help it to develop an approach that will

support the competitiveness of the Canadian space industry in national and international markets. The Office of Intellectual Property (IP) and Technology Transfer will continue to implement IP management plans to protect and commercialize intellectual property arising from Canadian space programs and missions to ensure the development and strong positioning of the Canadian space sector in the global market.

In line with the principles of Open Government, the CSA will continue to champion initiatives that promote transparency and engagement. The CSA strives to increase access to open data and tools, thus encouraging citizen science and advancing collective knowledge within the scientific community by expanding its Open Government Action Plan to include additional parameters. By fostering collaboration and knowledge-sharing, the CSA contributes to the broader goal of democratizing scientific information and empowering individuals to contribute to space research and exploration.

The CSA is also dedicated to fostering a flexible, inclusive, and accessible work environment. The optimization of its hybrid work environment, which includes a combination of in-person and remote work, provides staff with greater flexibility and work-life balance. To enhance productivity and collaboration, the CSA will continue to provide a suite of accessible, modern, and secure cloud-based tools that enable seamless communication and information sharing. Embracing a user-centric approach, the CSA will ensure that its staff can thrive in their roles while leveraging the latest technologies.

The CSA's Strategic Workforce Management Plan 2021–2024 will be replaced by a new People Strategy 2025–2028. The latter will serve as the overarching strategy under which all human resources (HR) strategies and plans will fall. For example, to promote equity and diversity, the CSA will initiate the renewal of its Employment Equity, Diversity and Inclusion Action Plan and will update its recruitment strategy accordingly. As part of this strategy, the CSA has established recruitment targets to increase representation among employment equity groups and will encourage training, learning and leadership development for members of these groups. These initiatives are designed to facilitate their access to managerial positions within the organization. By actively supporting the advancement of underrepresented groups, the CSA aims to reduce the representation gap and foster a more diverse and inclusive workforce.

Creating an inclusive and accessible workplace is another priority for the CSA. The CSA is committed to implement its Accessibility Plan 2023–25, which focuses on removing barriers and ensuring equal opportunities for all employees. In 2024, the CSA will launch an accessibility awareness campaign called "Did You Know?" to increase understanding of accessibility-related issues. In addition, an Accessibility Hub will be launched on the CSA's intranet to provide access to centralized information and resources.

Achieving the Government of Canada's socio-economic and environmental objectives relies on the effective management of its properties, including land and buildings: to this end, the CSA will finalize its long-term Real Property Portfolio Strategy during 2024–25, in alignment with the Directive on the Management of Real Property.

In line with the Greening Government Strategy and its Departmental Sustainable Development Strategy 2023–27, the CSA is actively working towards reducing its carbon footprint and adopting sustainable practices. The CSA aims to achieve climate-resiliency and net-zero emissions operations by 2050. To achieve this objective, the CSA will focus on reducing its greenhouse gas (GHG) emissions from various sources by making decarbonization of its facilities and fleet a priority. It will also implement

green procurement practices and aim to reduce embodied carbon in its projects. For detailed information, please see the CSA's 2023 to 2027 Departmental Sustainable Development Strategy.

By embracing digital transformation, promoting open scientific data, nurturing equity and diversity, creating an inclusive work environment, and adopting sustainable practices, the CSA is positioning itself as a leader for the space sector.

Snapshot of planned resources in 2024–25

- Planned spending: $64,955,212
- Planned full-time resources: 386.8

Related government priorities

Planning for contracts awarded to Indigenous businesses

In 2024–25 the CSA will continue its efforts to award 5% of the total value of its contracts to Indigenous businesses. In order to achieve this target, the CSA will continue to implement its Procurement Strategy for Indigenous Businesses which includes the use of conditional or voluntary set asides to increase contract awards to Indigenous businesses where business availability is identified as well as including Indigenous Participation Plans (IPPs) and evaluation criteria to grow industry capacity in commodities where business availability is not yet sufficient to result in direct contracts with Indigenous businesses.

5% reporting field	2022-23 actual result	2023-24 forecasted result	2024-25 planned result
Total percentage of contracts with Indigenous businesses	3.85%	4.26%	5.25%

Planned spending and human resources

This section provides an overview of the CSA's planned spending and human resources for the next three fiscal years and compares planned spending for 2024–25 with actual spending from previous years.

In this section

Spending

Figures 1 and 2: Spending by core responsibility in 2024–25

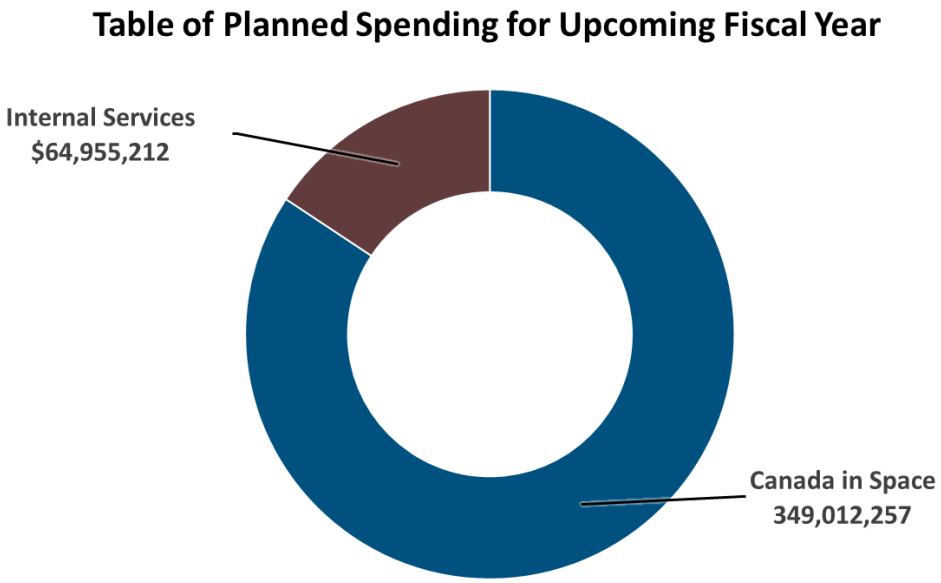
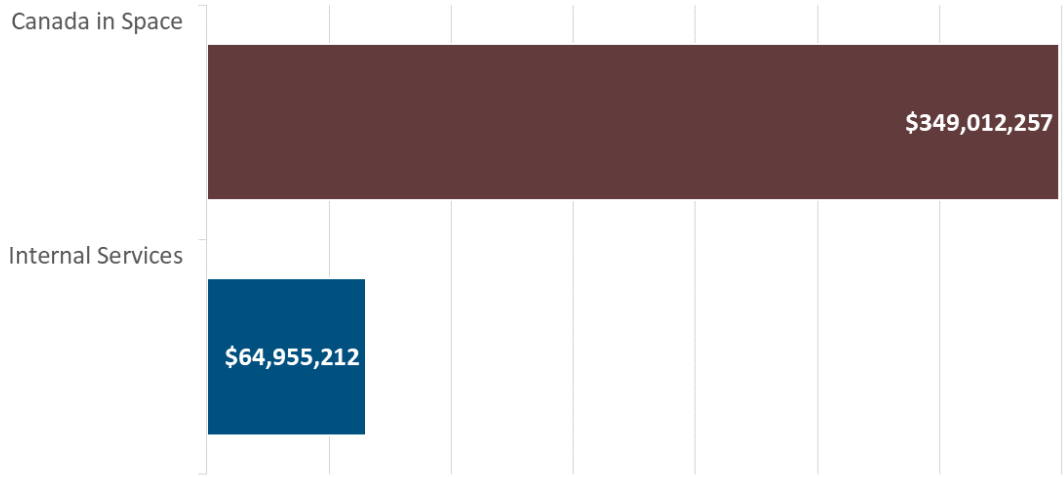


Table of Planned Spending for Upcoming Fiscal Year



Text description of figures 1 and 2

The above charts show information on spending for CSA's core responsibility (Canada in Space) and for its internal services for 2024–25.

Explanation of figures 1 and 2

The above charts note that, for 2024–25, the CSA is planning to spend $349,012,257 on its core responsibility (Canada in Space) and $64,955,212 on internal services.

Table 2: Actual spending summary for core responsibilities and internal services ($ dollars)

The following table shows information on spending for each of the CSA's core responsibility and for its internal services for the previous three fiscal years. Amounts for the current fiscal year are forecasted based on spending to date.

Core responsibilities and internal services	2021–22 actual expenditures	2022–23 actual expenditures	2023–24 forecast spending
Canada in Space	307,943,051	425,072,047	476,342,693
Subtotal	**307,943,051**	**425,072,047**	**476,342,693**
Internal services	60,165,098	73,163,448	61,059,544
Total	**368,108,149**	**498,235,495**	**537,402,237**

Explanation of table 2

The variances in actual spending from 2021–22 to 2023–24 is aligned with allocations for flagship initiatives including Canadarm3.

Table 3: Budgetary planning summary for core responsibilities and internal services (dollars)

The following table shows information on spending for each of the CSA's core responsibility and for its internal services for the upcoming three fiscal years.

Core responsibilities and internal services	2024–25 budgetary spending (as indicated in Main Estimates)	2024–25 planned spending	2025–26 planned spending	2026–27 planned spending
Canada in Space	349,012,257	349,012,257	255,954,383	251,985,840
Subtotal	**349,012,257**	**349,012,257**	**255,954,383**	**251,985,840**
Internal services	64,955,212	64,955,212	63,415,530	62,390,290
Total	**413,967,469**	**413,967,469**	**319,369,913**	**314,376,130**

Explanation of table 3

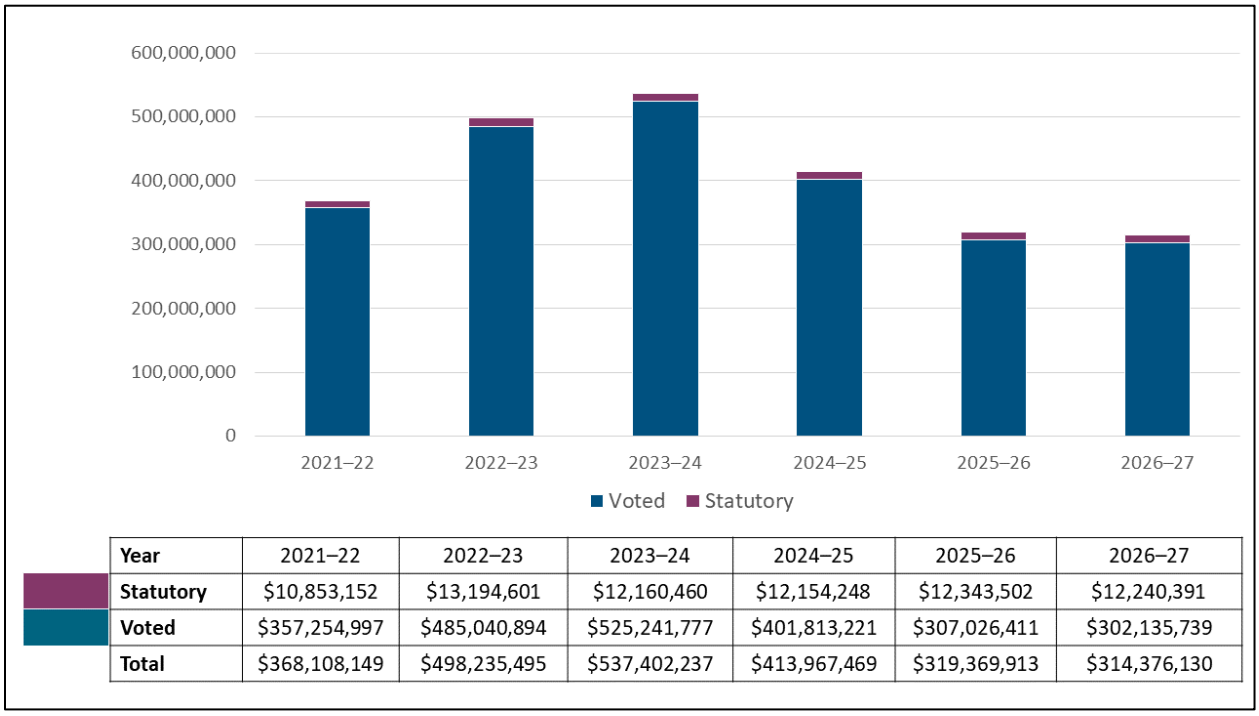
The variance between 2024–25 and 2026–27 in the "Budgetary planning summary" table above is mainly attributable to:

- New investment to support the International Space Station through 2030 announced in the 2023 Budget.
- Net decrease of investments in Gateway External Robotics interfaces (GERI).
- Net decrease of investments in WildFireSat (WFS); as announced in 2022 Budget, additional funding for this initiative is expected to be accessed in the upcoming years.
- Response to the "Refocusing government spending to deliver for Canadians" initiative announced in the 2023 Budget.

Funding

Figure 3: Departmental spending 2021–22 to 2026–27

The following graph presents actual and planned spending (voted and statutory expenditures) over time.



Year	2021–22	2022–23	2023–24	2024–25	2025–26	2026–27
Statutory	$10,853,152	$13,194,601	$12,160,460	$12,154,248	$12,343,502	$12,240,391
Voted	$357,254,997	$485,040,894	$525,241,777	$401,813,221	$307,026,411	$302,135,739
Total	$368,108,149	$498,235,495	$537,402,237	$413,967,469	$319,369,913	$314,376,130

Explanation of figure 3

The variances in actual spending are aligned with allocations for flagship initiatives including Canadarm3.

The variance between 2023–24 and 2026–27 is mainly attributable to:

- New investment to support the International Space Station through 2030 announced in the 2023 Budget.
- Net decrease of investments in Canadarm3 (announced in the 2019 Budget). Additional funding for this initiative is expected to be accessed in the upcoming years.
- Net decrease of investments in Gateway External Robotics interfaces (GERI).
- Net decrease of investments in WildFireSat (WFS); as announced in 2022 Budget, additional funding for this initiative is expected to be accessed in the upcoming years.
- Response to the “Refocusing government spending to deliver for Canadians” initiative announced in the 2023 Budget.

Estimates by vote

Information on the CSA’s organizational appropriations is available in the 2024–25 Main Estimates.

Future-oriented condensed statement of operations

The future-oriented condensed statement of operations provides an overview of the CSA's operations for 2023–24 to 2024–25.

The forecast and planned amounts in this statement of operations were prepared on an accrual basis. The forecast and planned amounts presented in other sections of the Departmental Plan were prepared on an expenditure basis. Amounts may therefore differ.

A more detailed future-oriented statement of operations and associated notes, including a reconciliation of the net cost of operations with the requested authorities, are available at CSA's website.

Table 4: Future-oriented condensed statement of operations for the year ending March 31, 2025 (dollars)

Financial information	2023–24 forecast results	2024–25 planned results	Difference (2024–25 planned results minus 2023–24 forecast results)
Total expenses	562,809,442	557,348,813	(5,460,629)
Total revenues	20,349	23,252	2,903
Net cost of operations before government funding and transfers	562,789,093	557,325,561	(5,463,532)

Explanation of table 4

Total expenses, estimated on an accrual basis, are planned to be $557,348,813 in 2024–25 resulting in a decrease of $5,460,629 (1%) from 2023–24 forecast.

The decrease is mainly due to:

- Increase of $8.2 million in amortization expenses, due mainly to the start of depreciation of Canadian instruments on the James Webb Space Telescope (JWST), which became operational in 2023–24.
- Decrease of $13.6 million in "professional and special services" mainly due to the refocusing government spending to deliver for Canadians initiative.

Total expenses result in the above future-oriented condensed statement of operations include planned spending presented in this Departmental Plan as well as other expenses not mentioned, such as amortization, services provided without charge by other government departments, severance benefits and vacation pay liability adjustments.

The most important expenses are mainly amortization, professional and special services, salaries and fringe benefits and transfer payments.

Total revenues are projected to be $1,783,904 in 2024–25. Most of the revenues are generated from the sales of goods and services such as testing services provided at DFL and are not respendable. The CSA's

respendable revenues are projected to be $23,252 and represent revenues from Crown Asset Disposition.

Human resources

Table 5: Actual human resources for core responsibilities and internal services

The following table shows a summary of human resources, in full-time equivalents (FTEs), for the CSA's core responsibility and for its internal services for the previous three fiscal years. Human resources for the current fiscal year are forecasted based on year to date.

Core responsibilities and internal services	2021–22 actual FTEs	2022–23 actual FTEs	2023–24 forecasted FTEs
Canada in Space	434.10	459.5	466.0
Subtotal	**434.10**	**459.5**	**466.0**
Internal services	332.1	373.9	362.3
Total	**766.20**	**833.4**	**828.3**

Explanation of table 5

The variance in the number of FTEs since 2021–22 is mainly due to the additional resources required to fill certain gaps and priorities, including new departmental requirements for internal services, such as:

- New obligations from the new Policy on Service and Digital, as well as increased personnel for information technology capabilities, including user support services, business intelligence and automation, and setting up a Data Expertise Centre.
- Increased capacity to support financial information for decision-making, including costing expertise, analytics and innovation for the future of financial management.

Increases also include additional resources to support STEM, the International Space Station, the Gateway Science and Technology Utilization, the Canadarm3 mission; and investments to recruit the next generation of public servants, which includes the student programs.

Table 6: Human resources planning summary for core responsibilities and internal services

The following table shows information on human resources, in full-time equivalents (FTEs), for each of the CSA's core responsibility and for its internal services planned for 2024–25 and future years.

Core responsibilities and internal services	2024–25 planned fulltime equivalents	2025–26 planned fulltime equivalents	2026–27 planned fulltime equivalents
Canada in Space	492.9	499.0	490.8
Subtotal	**492.9**	**499.0**	**490.8**
Internal services	386.8	393.0	395.1
Total	**879.7**	**892.0**	**885.9**

Explanation of table 6

The variance from 2021–22 to 2026–27 is mainly due to the increased personnel in preparation for the implementation of increased activities related to the Canadian space program with the success of several important budget announcements. This includes increased personnel in programs, as well as internal services that support these programs.

Corporate information

Organizational profile

Appropriate minister(s): The Honourable François-Philippe Champagne, P.C., M.P.

Institutional head: Lisa Campbell, President

Ministerial portfolio: Innovation, Science and Economic Development

Enabling instrument(s): Canadian Space Agency Act, S.C. 1990, c. 13

Year of incorporation / commencement: Established in March 1989

Other: The CSA was established in 1989. The Agency's headquarters are located at the John H. Chapman Space Centre, in Saint-Hubert, Quebec. Other CSA workplaces include the DFL in Ottawa, Ontario; the Policy office in Gatineau, Quebec; and liaison offices in Houston, Washington, and Paris.

Organizational contact information

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Email: info@asc-csa.gc.ca

Website(s): www.asc-csa.gc.ca

Supplementary information tables

The following supplementary information tables are available on CSA's website:

- Details on transfer payment programs
- Gender-based analysis plus

Information on the CSA's departmental sustainable development strategy can be found on the CSA's website.

Federal tax expenditures

The CSA's Departmental Plan does not include information on tax expenditures.

Tax expenditures are the responsibility of the Minister of Finance. The Department of Finance Canada publishes cost estimates and projections for government-wide tax expenditures each year in the Report on Federal Tax Expenditures.

This report provides detailed information on tax expenditures, including objectives, historical background and references to related federal spending programs, as well as evaluations, research papers and gender-based analysis plus.

Definitions

appropriation (crédit)

Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

budgetary expenditures (dépenses budgétaires)

Operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

core responsibility (responsabilité essentielle)

An enduring function or role performed by a department. The intentions of the department with respect to a core responsibility are reflected in one or more related departmental results that the department seeks to contribute to or influence.

Departmental Plan (plan ministériel)

A document that sets out a department's priorities, programs, expected results and associated resource requirements, covering a three-year period beginning with the year indicated in the title of the report. Departmental Plans are tabled in Parliament each spring.

departmental result (résultat ministériel)

A change that a department seeks to influence. A departmental result is often outside departments' immediate control, but it should be influenced by program-level outcomes.

departmental result indicator (indicateur de résultat ministériel)

A factor or variable that provides a valid and reliable means to measure or describe progress on a departmental result.

departmental results framework (cadre ministériel des résultats)

A framework that consists of the department's core responsibilities, departmental results and departmental result indicators.

Departmental Results Report (rapport sur les résultats ministériels)

A report on a department's actual performance in a fiscal year against its plans, priorities and expected results set out in its Departmental Plan for that year. Departmental Results Reports are usually tabled in Parliament each fall.

full-time equivalent (équivalent temps plein)

A measure of the extent to which an employee represents a full person-year charge against a departmental budget. Full-time equivalents are calculated as a ratio of assigned hours of work to scheduled hours of work. Scheduled hours of work are set out in collective agreements.

gender-based analysis plus (GBA Plus) (analyse comparative entre les sexes plus [ACS Plus])

An analytical tool used to support the development of responsive and inclusive policies, programs and other initiatives. GBA Plus is a process for understanding who is impacted by the issue or opportunity being addressed by the initiative; identifying how the initiative could be tailored to meet diverse needs of the people most impacted; and anticipating and mitigating any barriers to accessing or benefitting from the initiative. GBA Plus is an intersectional analysis that goes beyond biological (sex) and socio-cultural (gender) differences to consider other factors, such as age, disability, education, ethnicity, economic status, geography, language, race, religion, and sexual orientation.

government-wide priorities (priorités pangouvernementales)

For the purpose of the 2024–25 Departmental Plan, government-wide priorities are the high-level themes outlining the government's agenda in the 2021 Speech from the Throne: building a healthier today and tomorrow; growing a more resilient economy; bolder climate action; fighter harder for safer communities; standing up for diversity and inclusion; moving faster on the path to reconciliation and fighting for a secure, just, and equitable world.

horizontal initiative (initiative horizontale)

An initiative in which two or more federal organizations are given funding to pursue a shared outcome, often linked to a government priority.

Indigenous business

As defined on the Indigenous Services Canada website in accordance with the Government of Canada's commitment that a mandatory minimum target of 5% of the total value of contracts is awarded to Indigenous businesses annually.

non-budgetary expenditures (dépenses non budgétaires)

Net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

performance (rendement)

What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve, and how well lessons learned have been identified.

plan (plan)

The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally, a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead up to the expected result.

planned spending (dépenses prévues)

For Departmental Plans and Departmental Results Reports, planned spending refers to those amounts presented in the Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their Departmental Plans and Departmental Results Reports.

program (programme)

Individual or groups of services, activities or combinations thereof that are managed together within a department and that focus on a specific set of outputs, outcomes or service levels.

program inventory (répertoire des programmes)

An inventory of a department's programs that describes how resources are organized to carry out the department's core responsibilities and achieve its planned results.

result (résultat)

An external consequence attributed, in part, to an organization, policy, program or initiative. Results are not within the control of a single organization, policy, program or initiative; instead, they are within the area of the organization's influence.

statutory expenditures (dépenses législatives)

Expenditures that Parliament has approved through legislation other than appropriation acts. The legislation sets out the purpose of the expenditures and the terms and conditions under which they may be made.

target (cible)

A measurable performance or success level that an organization, program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

voted expenditures (dépenses votées)

Expenditures that Parliament approves annually through an Appropriation Act. The vote wording becomes the governing conditions under which these expenditures may be made.