



# Evaluation Summary of the Sun-Earth System Program

**10** missions related to the **Sun-Earth system** were ongoing between 2012 and 2017.



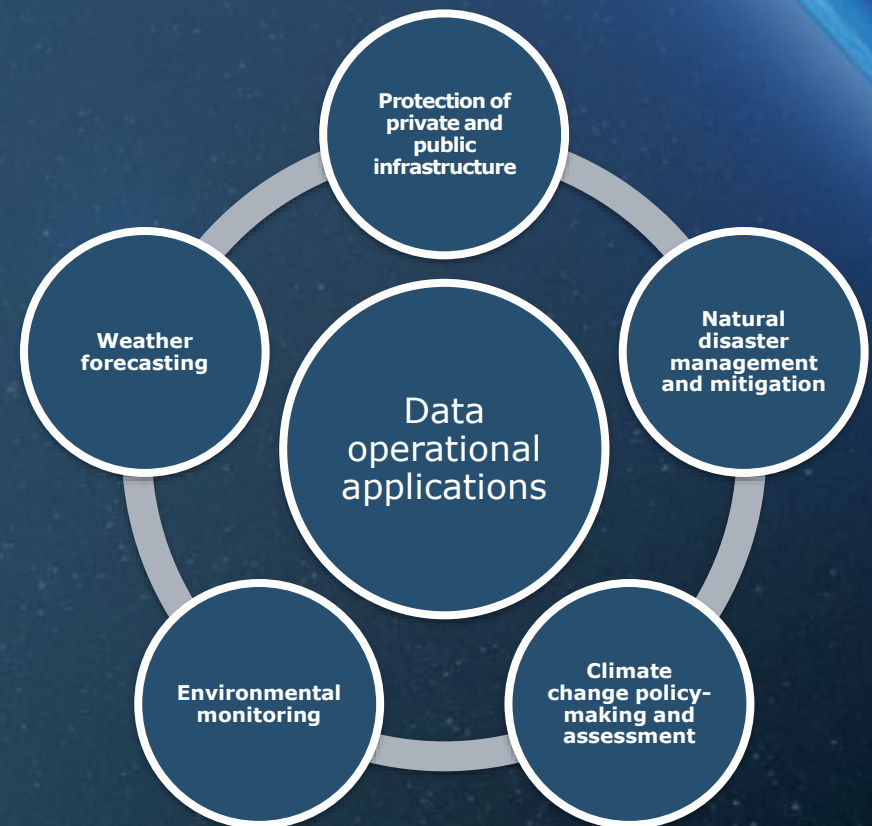
- ePOP (2013 - ongoing)
- SWARM (2013 – ongoing)
- SMAP (2015 – ongoing)

**3** Of these missions were launched in the same period.

More than **1,200** articles published in peer-reviewed journals, in addition to other publications and related activities undertaken by researchers funded by the CSA between 2012 and 2017



**2,400** articles were published between 2012 and 2017 that used, in some capacity, data produced by the Sun-Earth system initiatives, including both ground-based data and satellite data.







# Evaluation Summary of the Sun-Earth System business line Program

## About the evaluation

Covers the period from April 2012 to March 2017.

Conducted by PRA inc. on behalf of the CSA between September 2017 and September 2018 in response to the Treasury Board of Canada Secretariat's Policy on Evaluation (2009).

The evaluation's purpose is to collect and analyze evidence on the **relevance and performance** of the activities undertaken by the SESS-BL Program.

The evaluation used a mixed-methods approach that combined **qualitative and quantitative analyses** including:

- Document, performance and financial data review
- Key informant interviews
- Case studies

## What is the Sun-Earth system business line program?

This program focuses on **space missions related to Earth observation, satellite communications, and scientific missions**. It contributes to a greater understanding of the Earth's space environment and its interaction with the Sun, the chemical and physical processes found in the Earth's atmosphere, and how they interact with the Earth's surface. The range of activities covered have included mission design, ground infrastructures, and the access and use of the data and imagery.

## What have we learned?

The SESS-BL provides the overall framework and vision for CSA'S involvement in scientific missions concerning the Sun-Earth system.

The SESS-BL supports a specific range of activities that **falls within the mandate of the CSA**, and which complement what other funding agencies are offering.

The SESS-BL has provided financial support for a range of activities that cover the various cycles of scientific missions, from **concept studies to data utilization**.

The SESS-BL has **engaged scientists and space industry** in missions that have produced scientific knowledge on the Sun-Earth that has since been operationalized **to support the ongoing delivery** of public programs and activities.

## How can we improve the program?

At the time of the evaluation, the CSA was implementing the *Policy on Results*. The evaluation provided an opportunity to better assess the range of SESS-BL **performance data collected to date**, and in doing so, identified gaps that can be addressed as part of this implementation process.

This performance information can support the decision-making process in addition to enhancing the capacity of the CSA **to share information** on activities carried-out and **results achieved** by the SESS-BL with **key stakeholder groups**.

Also, the CSA has **implemented processes** (through committees) that will support a more systematic consideration of a range of factors such as the **priorities** set by other space agencies, **operational needs** of federal departments and agencies, and the needs and capacities of **Canadian scientists and the Canadian space industry**.

While these committees are expected to support the decision-making process within the CSA, they also present an **opportunity to further engage**, through knowledge translation and sharing activities, stakeholders who have a direct stake in the Sun-Earth system scientific knowledge and its application.