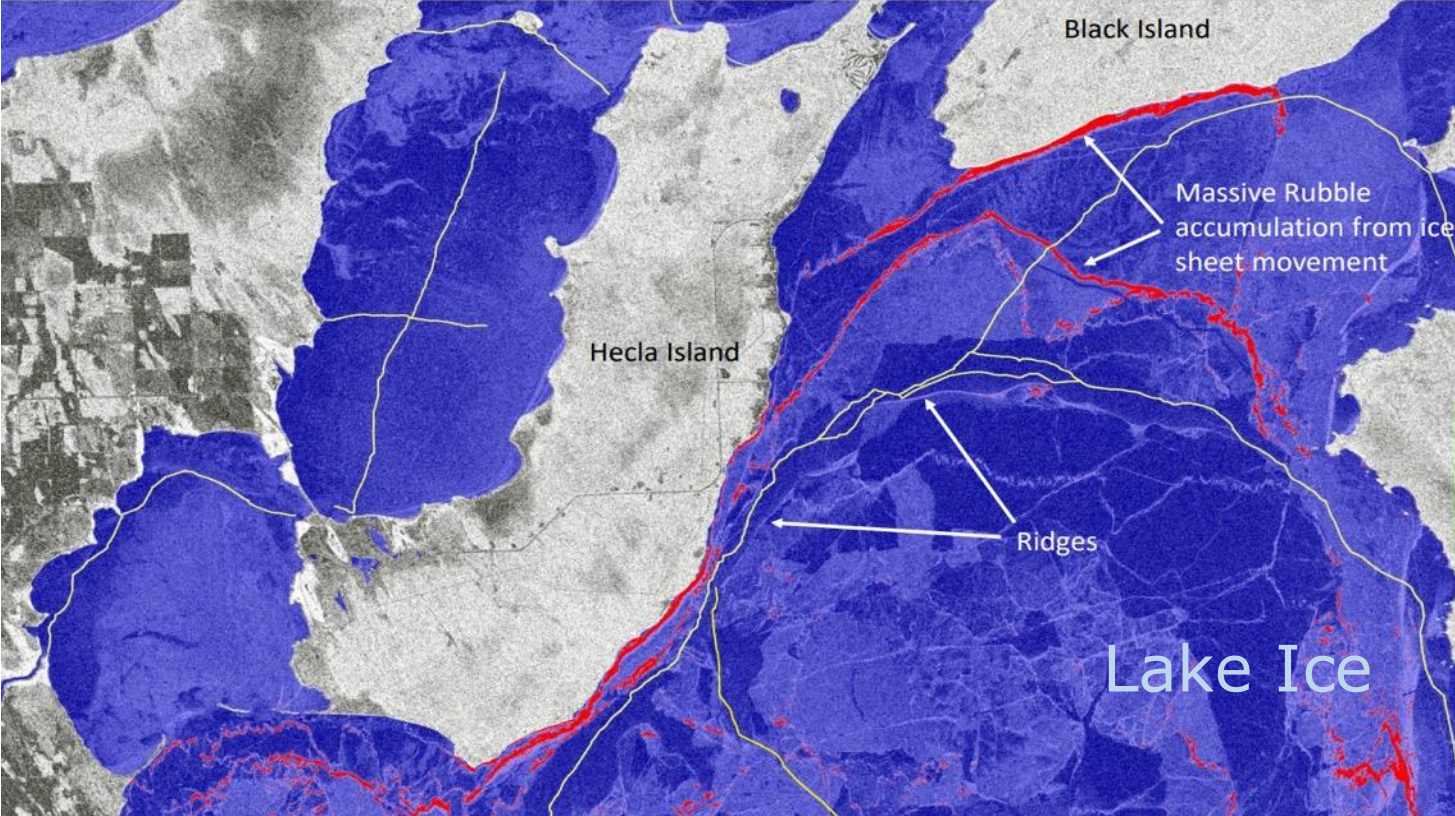
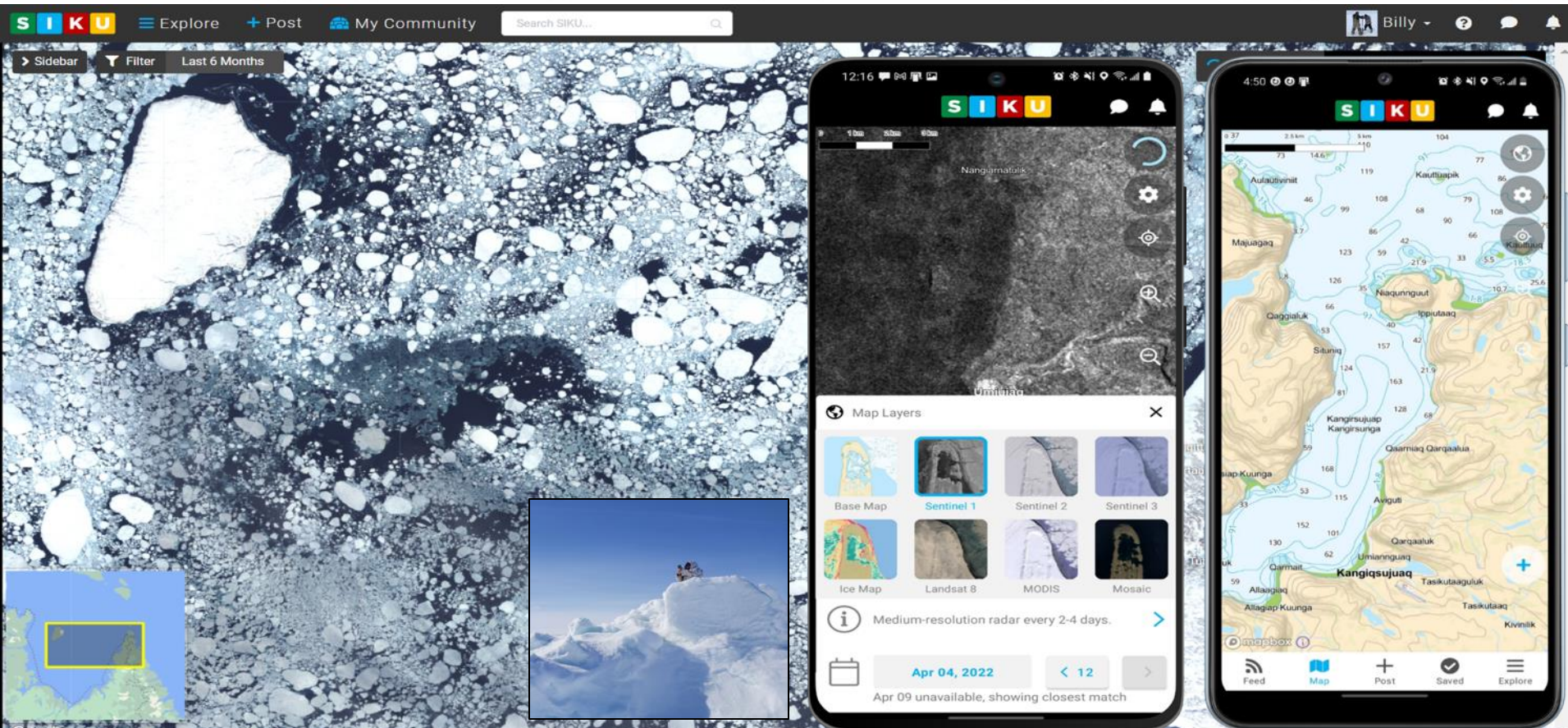


smartEarth: NextGen & First Nations in Manitoba



smartEarth: SIKU / Inuit Driven Platform



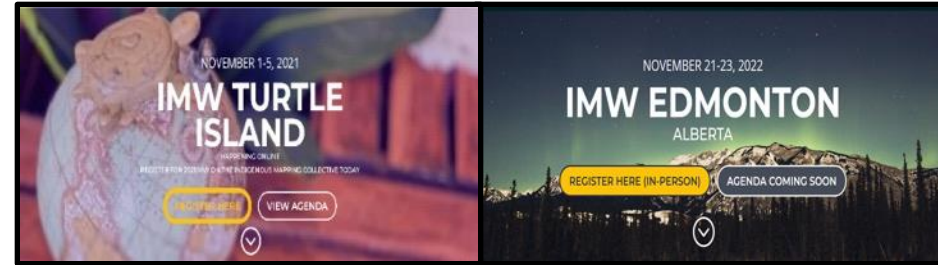
smartEarth: Vertex & T'Sou-ke First Nation



A success story of co-development and partnership



Canadian SAR MOOC



Joint CSA-NASA EO Training & Dialogue Sessions

2018-2021

2021-2022

2023+

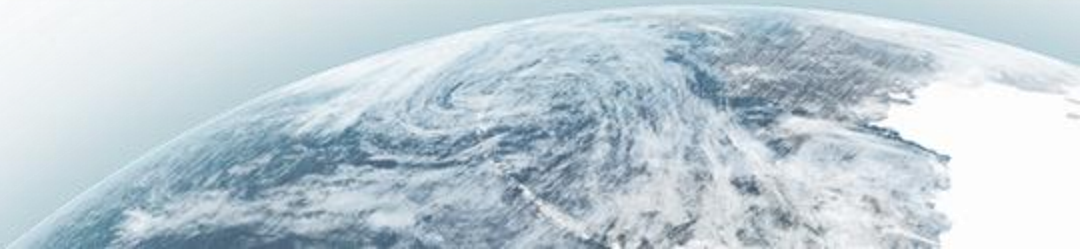
EO capacity > Two-way learning, dialogue, story telling > Longer-term plan

Joint CSA-NASA Multi-Year Plan
(in development)

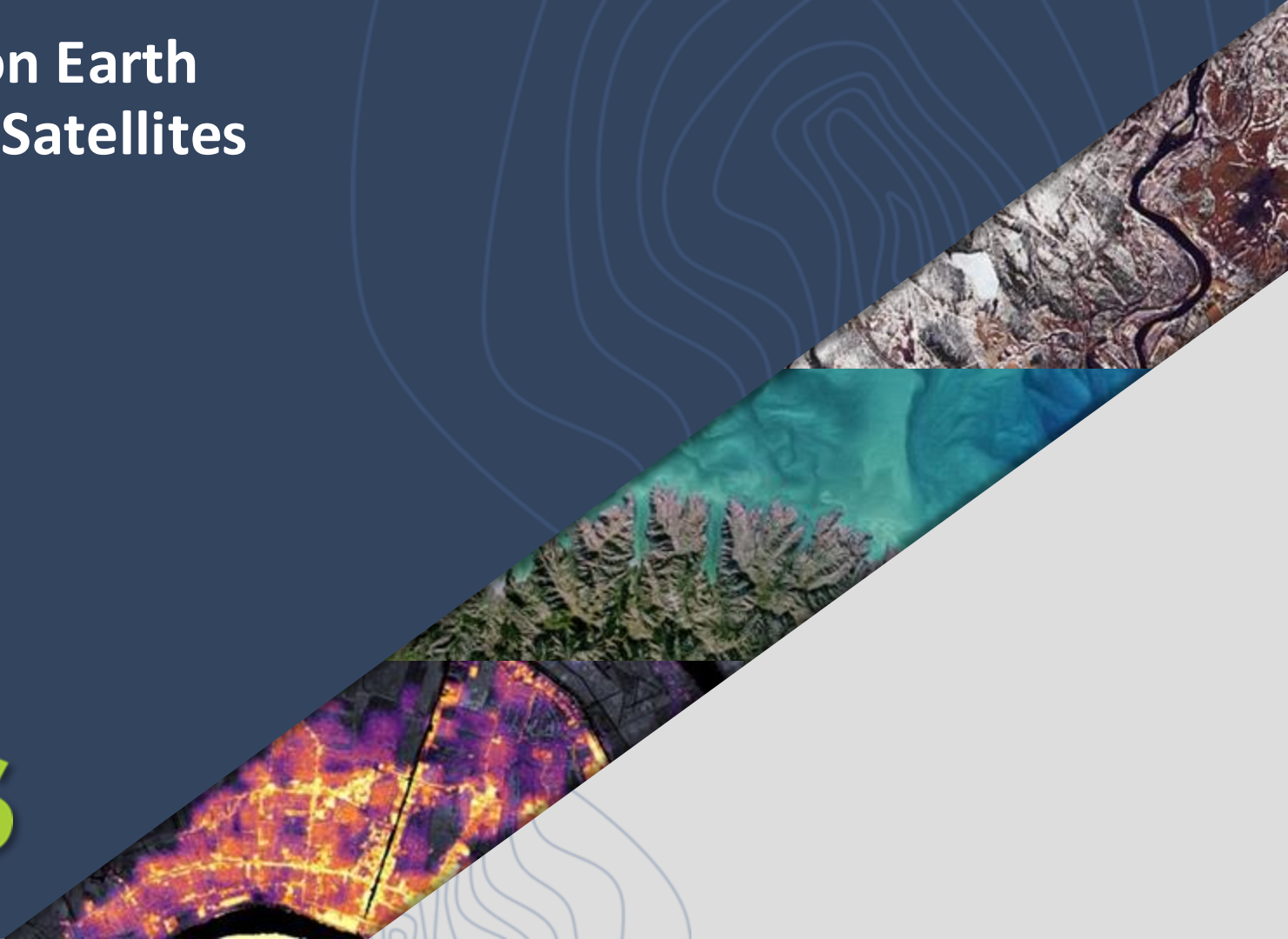
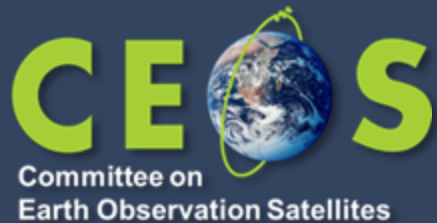
smartEarth: smartWhales



- 3 federal departments
- 5 multi-sectoral consortia
- 11 science organizations
- 8 foreign organizations
- 80 highly qualified personnel
- 50% new organizations involved



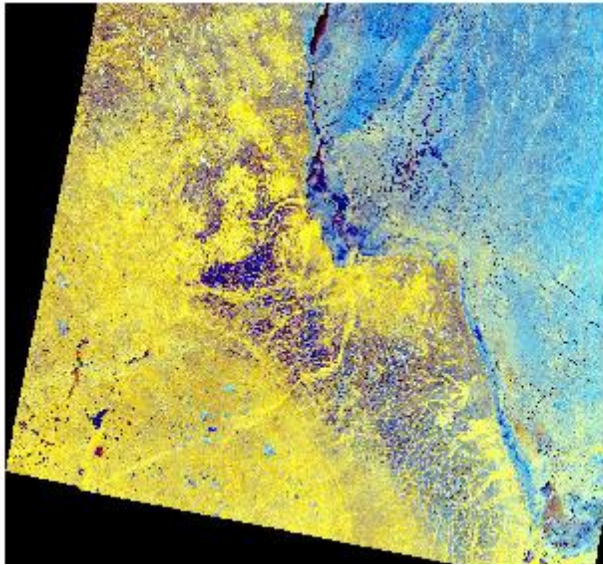
Committee on Earth Observation Satellites Biodiversity



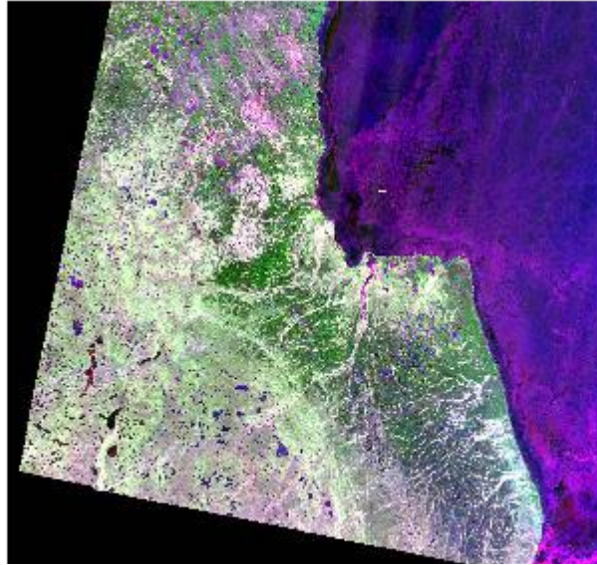


RCM Composite Imagery of Hudson Bay / Wapusk National Park Area

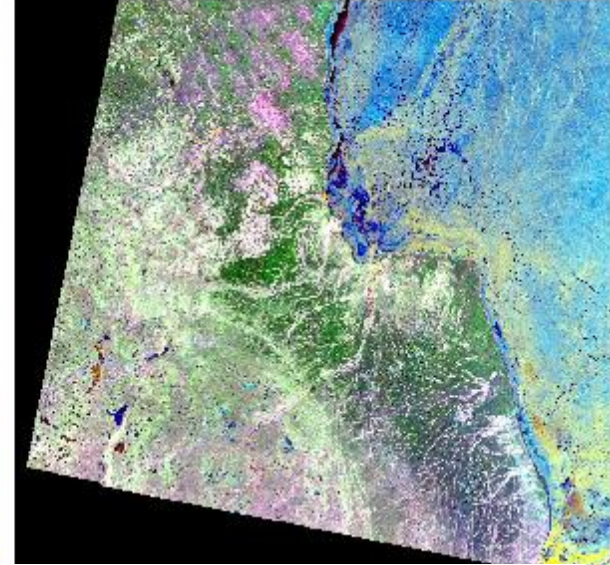
October 13, 2023 and February 6, 2024



Single Date:
Feb. 6, 2024

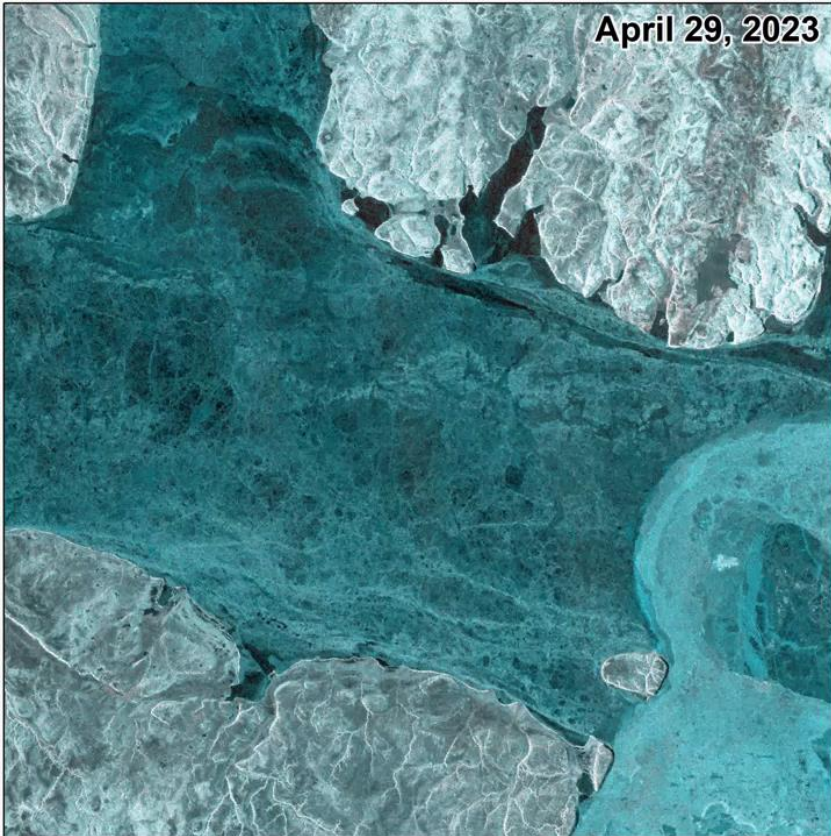


Composite:
Feb 6, 2024 & Oct. 13, 2023



Composite:
LAND (Oct&Feb) + Sea (Feb)

North West Passage

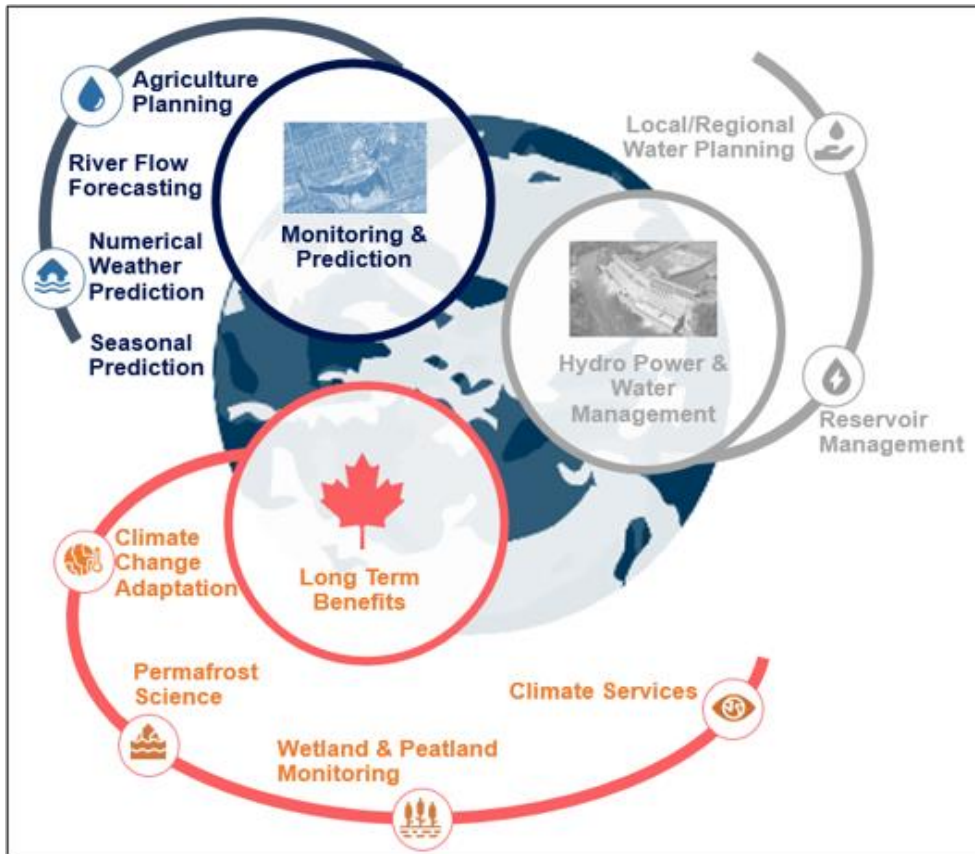


Succession of RCM imagery

Surface Water and Ocean Topography (SWOT)



Terrestrial Snow Mass Mission (TSMM)

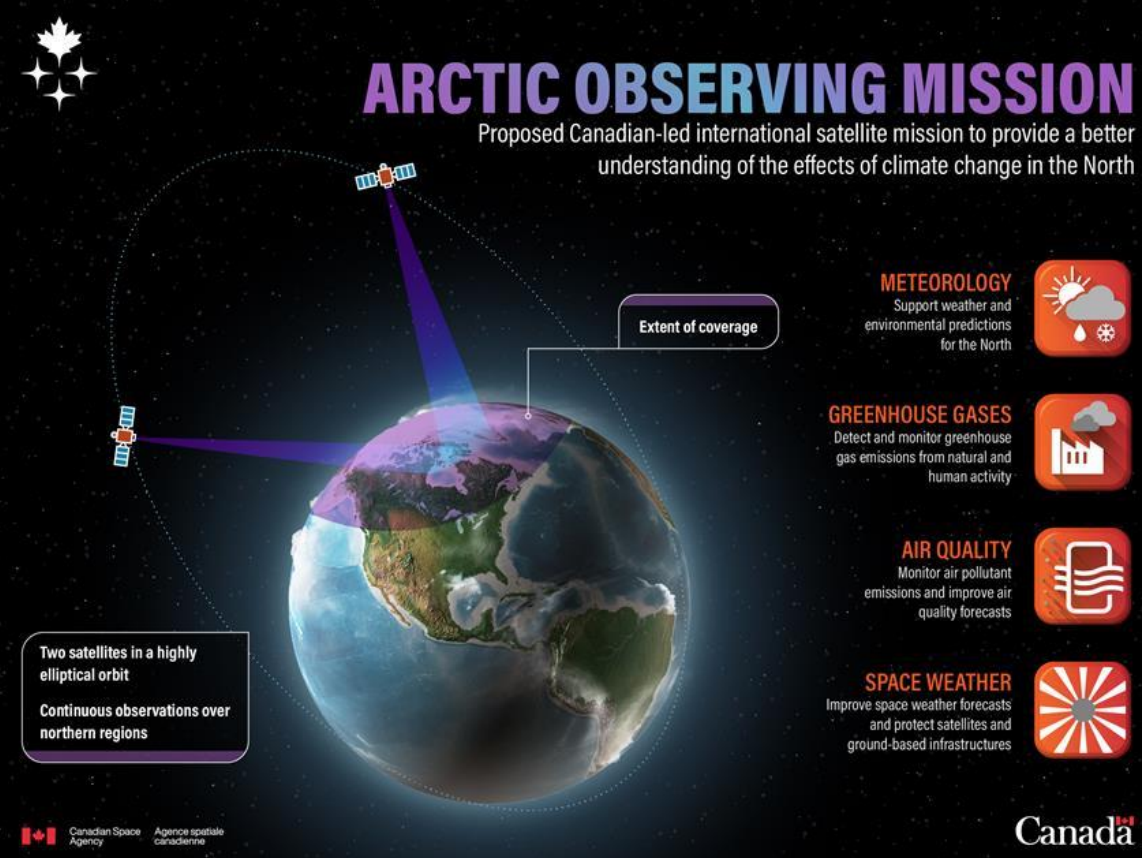


TSMM is a proposed radar mission to inform climate services and improve environmental predictions for snow covered regions

- **Climate change adaptation**
- **Monitoring and prediction**
- **Water management**



Arctic Observing Mission (AOM)



ARCTIC OBSERVING MISSION
Proposed Canadian-led international satellite mission to provide a better understanding of the effects of climate change in the North

METEOROLOGY
Support weather and environmental predictions for the North

GREENHOUSE GASES
Detect and monitor greenhouse gas emissions from natural and human activity

AIR QUALITY
Monitor air pollutant emissions and improve air quality forecasts

SPACE WEATHER
Improve space weather forecasts and protect satellites and ground-based infrastructures

Extent of coverage

Two satellites in a highly elliptical orbit
Continuous observations over northern regions

Canadian Space Agency / Agence spatiale canadienne

Canada

High-altitude Aerosols, Water vapour and Clouds (HAWC)



HAWC is a Canadian mission on NASA's Atmosphere Observing System, a four-satellite constellation.

It will support extreme weather prediction, climate modelling and disaster monitoring.



Climate Change and Impacts



https://www.asc-csa.gc.ca/videos/recherche/1_evju_bu0h/1_nljith46.webm



