

CANADIAN SPACE AGENCY SELECTS NORTHSTAR FOR PROJECT SUPPORTING THE CONSERVATION OF WETLANDS

CSA smartEarth Initiative fits with NorthStar's overall program of technology for sustainability in Agriculture, Forestry and Energy

MONTREAL, CANADA, 24 November 2020 / The Canadian Space Agency (CSA) announced today that it has selected NorthStar Earth & Space (NorthStar) as part of its smartEarth initiative for a project to advance the state-of-the-art multi-source data fusion and apply machine learning techniques to map Canada's environmentally critical wetlands areas (wetlands project).

NorthStar will receive up to \$300 000 from the smartEarth initiative, dedicated to the development of innovative satellite data solutions to help meet the needs of Canadians in their everyday lives. NorthStar airborne hyperspectral data acquired during summer 2019 and 2020, covering many sites of interest in Canada, will support the wetlands project and demonstrate NorthStar's Earth Information and Intelligence (EI²) services capabilities.

"At a time of unprecedented climate change, NorthStar is proud to be working with the Canadian Space Agency on a project that will leverage Space-based Earth Observation and data fusion to support the conservation of wetlands, which are vital to animal species and plant life. Wetlands conservation is critical to mitigating the effects of Climate Change and protecting human beings from severe weather events such as floods. We look forward to working with the CSA."

– Stewart Bain, CEO and co-founder, NorthStar Earth & Space

Earth Information and Intelligence (EI²) product development

NorthStar continues development of its Earth Information and Intelligence (EI²) services in collaboration with partners in the private, academic and government sectors.

Using proprietary and third-party data, NorthStar is developing solutions in a variety of Earth sectors including Agriculture, Forestry and Energy:

EP – Agriculture

NorthStar is leading a partnership with Canada-based horoma AI on the development of EI² agriculture solutions. By using NorthStar's AI, hyperspectral data and data fusion capabilities, this partnership will advance solutions for monitoring crop productivity and health in order to achieve high yields while adopting sustainable agriculture practices.

In line with its mission to empower humanity to preserve our planet, NorthStar and its partners are collaborating with Quebec farmers and agronomists from the outset in order to get practical insight and achieve actionable products that will make a difference for global agriculture and sustainable farming when deployed at scale. As part of this partnership, NorthStar will share information with farmers about their land to help them manage environmental stress and increase production yield.

EP – Forestry

To empower conservation and sustainable management of the world's forests, NorthStar is leveraging its advanced platform, AI expertise, proprietary hyperspectral data and third-party data to develop EI² solutions for mapping and monitoring the condition of forests.

The NorthStar platform will revolutionize forest management when deployed at scale. NorthStar hyperspectral data will enhance forest inventory, disease monitoring, and wildfire response management.

NorthStar is currently developing its EI² solutions for mapping forest genus and species, and insect infestation with collaborators such as the Ministry of Forests, Wildlife and Parks of Quebec.

EP – Energy Infrastructure Monitoring

To support safer and greener operations by the energy sector, NorthStar is developing EI² solutions for monitoring risks to infrastructure integrity and methane leakage in partnership with leading operators.

Global Coverage Starting in 2024

NorthStar's planned constellation of dual mission satellites gathering earth observation (EO) as well as Space Situational Awareness (SSA) data, will deliver services starting in 2024. To deliver these next generation solutions supporting the sustainability of our earth and space environment, NorthStar anticipates the creation of over 100 new jobs at its headquarters in Montreal over the next 2 years, mainly in the fields of aerospace engineering, data analytics and artificial intelligence.

Starting in 2024 NorthStar will launch its constellation of satellites performing Earth observation (EO). These satellites will be equipped with Hyperspectral, Infrared and Optical sensors, which will operate continuously from space, imaging, digitizing, and analyzing the details of Earth's ecosystems and surrounding orbit on a daily basis.

Transforming traditional Earth Observation into Earth Information and Intelligence (EI²), NorthStar's system will be the first to analyze all matter on the surface of the Earth multiple times per day, delivering knowledge of the Earth at a level of precision, richness and timeliness never before available and to provide actionable information to end clients.

About NorthStar Earth & Space

NorthStar's investors comprise a global coalition of strategic partners, including Telesystem Space (Canada), the Space Alliance of Europe (Thales Alenia Space and Telespazio), KinetX (USA), the Government of Quebec and the Government of Canada.

The NorthStar Platform uses advanced big data analysis and AI based predictive analytics to deliver contextualized information solutions directly to end users in the private and public sectors, providing critical knowledge about Earth and its orbital environment.

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