

SmartSat CRC and NZ Government announce four new joint research projects under the Australia-New Zealand Collaborative Space Program

Adelaide, 24 July 2024 – SmartSat Cooperative Research Centre (SmartSat CRC) announced today the first four new jointly funded space research projects and opened further funding opportunities in partnership with New Zealand’s Ministry of Business, Innovation and Employment (MBIE).

The four initial research projects, commencing in August 2024, include research into monitoring methane emissions, enhancing real-time monitoring of greenhouse gases, managing free space optical communication nodes across Australia and New Zealand, improving the tracking of space objects, and developing a joint AUS-NZ concept for maritime domain awareness.

Professor Andy Koronios, CEO of SmartSat CRC, emphasised the importance of this collaboration and stated, “In a significant advancement for Trans-Tasman space collaboration, this partnership between Australia and New Zealand in the space sector demonstrates our commitment to leveraging our combined strengths and resources. These projects are a testament to our shared vision of driving innovation and developing capabilities that will not only benefit our respective countries but also contribute to global advancements in space technology.”

The partnership between SmartSat and MBIE aims to establish enduring partnerships between Australian and New Zealand researchers to create platforms for larger-scale future research collaborations, help develop talent, joint expertise and support R&D in alignment with industry and end user needs. Additionally, the research addresses major environmental, economic and social challenges through scientific collaboration while leveraging the unique geographical advantages of Australia and New Zealand, such as the southern hemisphere location, clear skies, and varied topography.

Dr Carl Seubert, Chief Research Officer of SmartSat CRC, added: “We’re excited to be driving international research collaboration, and bringing Australian and New Zealand research organisations together to tackle significant issues through innovative space R&D. Initiatives such as this are essential to foster the development of space technology and amplify its impact to solve environmental, economic, and social challenges on Earth.”

In addition to announcing the initial projects, SmartSat also opened a call for submissions for funding opportunities for further research activities under the program. SmartSat CRC and MBIE are inviting proposals for collaborative six-month feasibility studies with up to AUD \$100,000 for Australia-based research activities, or up to NZD \$100,000 for New Zealand-based research activities. This funding opportunity aims to harness complementary resources and expertise to develop innovative research and development projects in the area of Earth Observation that will drive the growth of the space industry in both countries.

Open to public and private Australian and New Zealand research organisations, projects should align with industry and end-user needs, addressing major environmental, economic, and social challenges. For more information and to submit proposals, please visit the [SmartSat CRC website](#).

Further information can be found on the [MBIE website](#).

Funded Projects

Verifying MethaneSat livestock methane emission estimates in New Zealand and Australia using ground and airborne observations

University of New South Wales, National Institute of Water and Atmospheric Research (NIWA), University of Wollongong

This project aims to utilise ground and airborne observations to verify MethaneSat's livestock methane emission estimates in New Zealand and Australia. This project aims to improve real-time monitoring of greenhouse gas emissions and provide valuable data for carbon accounting and emission reduction strategies.

A Feasibility Study into the Governance and Management of a Network of Free Space Optical Communication Nodes Across Australia and New Zealand

University of South Australia, University of Auckland

To explore the governance and management of a network of free space optical communication nodes across Australia and New Zealand. This study will address the technical and operational challenges of Earth-to-space optical communications.

Supporting the SatPing initiative with Observation, Modelling, and Hardware Development

Curtin University, Nova Systems, University of Auckland

To develop observation modelling and hardware for the SatPing initiative, which aims to enhance space situational awareness by improving the tracking of objects in Earth's orbit.

Monitoring the Southern Indo-Pacific from Space – The Takahē Mission

SmartSat CRC, Restore Lab

To align and develop a joint AUS-NZ mission concept focusing on maritime domain awareness and the advancement of synthetic aperture radar (SAR) technologies for environmental and security monitoring.

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ABOUT THE SMARTSAT CRC

The SmartSat Cooperative Research Centre brings together over 135 participating organisations, including national and international partners, with more than 400 researchers. With a portfolio of over 150 R&D projects across Advanced Communication, Connectivity and IoT Technologies, Advanced Satellite Systems, Sensors and Intelligence, and Next Generation Earth Observation Data Services, SmartSat continues to contribute to building Australia's space R&D capability. The SmartSat Cooperative Research Centre activities are funded by the Australian Government Department of Industry, Science and Resources through the Cooperative Research Centres Program. Find out more at www.smartsatcrc.com.