



[Press Release]

Tactical Earth Observation Gets Smarter: Game-Changing IDRS™ Comms Tech to be Deployed for Space Inventor's Space-Based Maritime Surveillance

4 June 2024

A new partnership between Danish satellite engineering company Space Inventor and communication specialists Addvalue will see IDRS™ deployed for the AI-powered Bifrost In-Orbit Demonstrator mission, due to launch in 2025.

Supported by a Danish/Swedish consortium, Bifrost is a single-satellite, technology demonstration project commissioned by the Danish Ministry of Defense. Its objective is to explore space-based surveillance of the Arctic region around greater Denmark (including the Faroe Islands and Greenland) by leveraging multispectral optical imaging, radio signals and AI over edge processing. This will detect ships and deliver near real-time early warning for defense and coastguard authorities. Bifrost's micro-sat class satellite will operate in a sun synchronous polar orbit at 525-575 km with an expected life expectancy of five years.

The game-changing IDRS™ solution makes all this possible using the world's only 'always-on', on-demand, real-time connection for any LEO satellite. This enables access to 24/7 data connection and transfer services with LEO satellites across all orbital inclinations up to altitudes of 1000 km and removes the need for restrictive earth station scheduling for managing or tasking any LEO satellite constellation. This is achieved through connecting to the Viasat global L-band constellation of GEO satellites and its broadband global area network (BGAN) ground infrastructure to deliver reliable, secure coverage and connectivity in near real time.

Other Bifrost consortium companies include Danish defense company TERMA, AI specialist and university spin-off Unibap, leading international research institute DTU Space and the



space communications software experts at Gatehouse Satcom. Several other organizations and scientific bodies have expressed interest in collaboration.

On-board technology includes the Addvalue-IDRS i100 transceiver and antenna, MSI multispectral imager, EMS RF receiver, and Unibap iX5-100 Payload Processing Unit (PPU) with firmware and algorithms.

Space Inventor founder and Chief Executive Officer, Karl Kaas, said, “Bifrost is a project of great strategic importance for Space Inventor, and together with the advanced sensors and AI, IDRS will play an important role in securing essential real-time surveillance data in the vast maritime regions of Denmark.”

Tan Khai Pang, Chief Executive Officer of Addvalue, commented, “It’s a great honor to be working with Space Inventor. By drawing on our proven experience using Viasat technology to drive our real-time IDRS™ data relay solution, we can help Space Inventor make a success of the Bifrost project, strengthening Denmark’s maritime surveillance capabilities.”

“We’re proud to be the provider of the communications link supporting Addvalue IDRS and Space Inventor,” said Todd McDonell, Head of Viasat International Government. “Viasat’s [global L-band network](#) will provide reliable connectivity for secure data transport and continuous commanding and controlling of the Bifrost satellite in real time via the IDRS ‘Always On’ link.”

For more information about Addvalue IDRS™, please contact:

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■ About SPACE INVENTOR

Space Inventor is a satellite engineering company set up by some of the most experienced small-sats engineers and entrepreneurs in the industry. The company has delivered several commercial and defense-related solutions for space – for example, Space Inventor was the first company to deliver a commercial micro-satellite for GEO. Space Inventor offers a series of standard avionics products within power, on-board computers, radio communication, ADCS systems as well as fully integrated satellite missions and Ion-orbit Operation as a service.

Learn more at www.space-inventor.com/

■ About ADDVALUE INNOVATION

Addvalue Innovation Pte Ltd, a wholly-owned subsidiary of SGX Mainboard-listed Addvalue Technologies Ltd (A31), is a leading satellite-based communication solutions company. Addvalue provides state-of-the-art communication terminals for use in space, in the air, at sea and on the ground. The company also offers extensive engineering and integration services. Addvalue's expertise extends far beyond where the world's terrestrial networks end. Whatever the market or application, the company's wide range of satellite-based products and services can offer the right technology to drive enhanced connectivity.

Learn more at www.addvaluetech.com

■ About Viasat

Viasat is a global communications company that believes everyone and everything in the world can be connected. With offices in 24 countries around the world, our mission shapes how consumers, businesses, governments and militaries around the world communicate and connect. Viasat is developing the ultimate global communications network to power high-quality, reliable, secure, affordable, fast connections to positively impact people's lives anywhere they are—on the ground, in the air or at sea, while building a sustainable future in space. In May 2023, Viasat completed its acquisition of Inmarsat, combining the teams, technologies and resources of the two companies to create a new global communications partner. Learn more at www.viasat.com, the [Viasat News Room](#) or follow us on [Facebook](#), [Instagram](#), [LinkedIn](#), [X](#) or [YouTube](#).