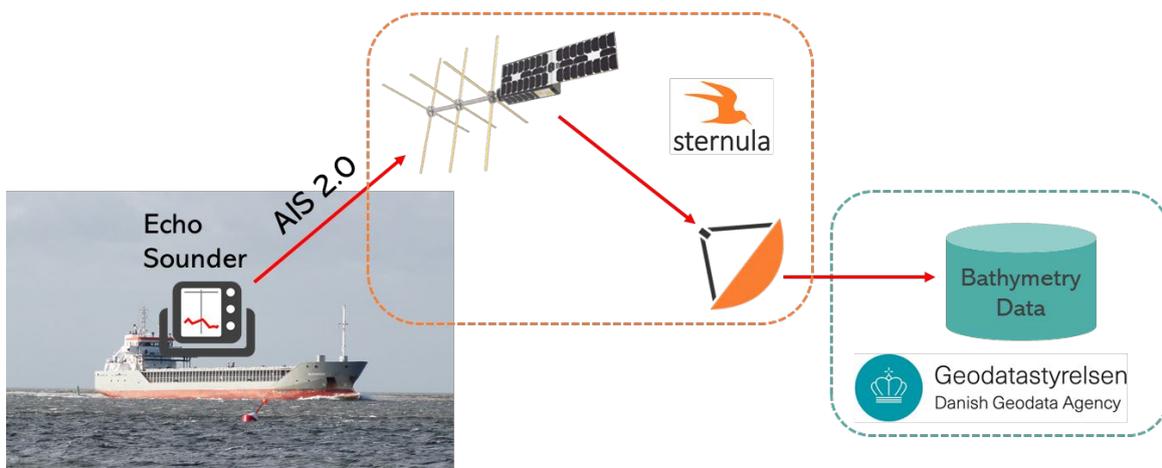


## JOINT PRESS RELEASE

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# The Danish Geodata Agency and Sternula develop a Trusted Crowd-Sourced Bathymetry solution for safety of navigation

Sternula and the Danish Geodata Agency have signed an agreement for the joint development of a solution to enable scalable, Trusted Crowd-Sourced Bathymetry (TCSB) to improve safety of navigation, using the new AIS 2.0 technology offered by Sternula. A large portion of the ocean seafloor is unmapped or sparsely mapped using old methods. To reduce this gap, the Danish Geodata Agency wants to exploit valuable ocean-mapping data from already-installed echo sounders onboard ships. The new AIS 2.0 technology offered by Sternula via satellite is an ideal connectivity option for a TCSB solution, where the cost per ship installation must be kept as low as possible.



The Danish Geodata Agency is responsible for the production of nautical charts for Denmark and Greenland to allow for safe navigation and public administration. This role presents challenges like vast coastal areas and highly dynamic seafloor (e.g., in the inner Danish waters). As such, the Danish Geodata Agency has been evaluating additional data sources to complement hydrographic surveys. In 2020, the Danish Geodata Agency, in collaboration with the Canadian Hydrographic Service, has prepared a [whitepaper](#) that envisions the creation of a modern infrastructure able to handle large amounts of TCSB data. Such a whitepaper comes from the identification of TCSB as a mature concept that can assume a critical role in preserving the safety of navigation, particularly in challenging areas to survey like the Arctic Region. Many commercial ships, fishing vessels, and naval ships are equipped with an echo sounder. The data generated by such echo sounders is typically only used by the ship crew to avoid groundings, but for the charting authority the data may be exploited for continuous acquisition and automated processing of the data stream from a network of selected partners (the ‘trusted crowd’) into nautical charts and publications.

The new collaboration with Sternula will develop an affordable ship unit, named Gavia, including multiple connectivity options that can be deployed in many ships. The core technology to be utilized to ensure global coverage is AIS 2.0, which is also known as VDES. AIS is an existing maritime standard for vessel

tracking. The new AIS 2.0 / VDES technology offers additional data transfer capabilities through the onboard AIS unit. Moreover, since AIS is mandatory for ships of a certain size, it will soon be available on most ships.

*- We are very happy to start working with the Danish Geodata Agency on crowd-sourced bathymetry. This is a typical digital service, which fits our AIS 2.0 network really well. The low cost per ship is essential for the agency to get many installations deployed. The concept used in this project is based on the VDES Living Lab project that we just completed. We are very happy that the innovation from that project can be converted to commercial applications with a limited overhead, says Lars Moltsen, CEO at Sternula.*

*- At the Danish Geodata Agency, we aim to exploit new technology to do things smarter. Sternula offers a new solution for maritime connectivity, which allows us to provide a simple and effective solution that can extract bathymetric data from a network of sailing vessels at the same time. The Gavia project will develop a Trusted CSB (Crowd-Sourced Bathymetry) platform that we will use to improve our nautical charts for many different regions, states Niels Tvilling Larsen, Head of Department, Danish Hydrographic Office at Danish Geodata Agency.*

#### **About Sternula**

Sternula is Denmark's first commercial satellite operator. At Sternula, we offer global VDE-SAT connectivity for maritime authorities and industries using our own fleet of advanced micro satellites in Low-Earth Orbit (LEO) which will be operational from 2022. At Sternula, we are proud to enable safety at sea and to help shipping companies save costs and reduce pollution. We take an active role together with global maritime stakeholders to standardize VDES under IALA, IMO, and ITU.

Find further information about Sternula at [www.sternula.com](http://www.sternula.com).

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#### **About the Danish Geodata Agency**

At the Danish Geodata Agency, we collect, quality assure and distribute authoritative property and hydrographic data. We work across a variety of authorities and stakeholders for the benefit of society as a whole. We register changes in basic data about properties and owners. We make data available as a legal basis for transactions, mortgaging and taxation of property in Denmark. The data is also used as basic data for other public administration.

We compile geospatial data about the sea. We make nautical charts and other maritime products for Danish and Greenlandic waters available to allow for safe navigation and public administration at sea.

Find further information about the Danish Geodata Agency at [www.gst.dk](http://www.gst.dk).

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