Sea-**I**ce thickness products i**N**ter-comparison e**X**erci**S**e (SIN'XS)

Open Call for Data Submission

Start date: October 16th, 2023

End date: June 30th, 2024

1. Objectives of this call

In the frame of the SIN'XS project (https://sinxs.noveltis.fr/), the objective of this call is to enable the widest possible contribution from the entire community for populating the SIN'XS database.

The data that will be integrated will be considered in the intercomparisons that will be conducted and will benefit from the features offered by the SIN'XS tools.

Data submission is open to everyone.

2. Context

The SIN'XS project, led by NOVELTIS in collaboration with AWI, LEGOS and UCL, is a three-year activity (May 2022 – May 2025) funded by ESA in the framework of the Polar Science Cluster, with the objective to foster collaborative research and interdisciplinary networking actions regarding sea-ice and snow thickness.

In light of rapid changes of the Arctic and Antarctic sea ice cover, continued and improved observations, understanding and predictions of its thickness are particularly important for a range of fields from climate studies to offshore operations in ice. Systematic and accurate ice thickness observations are now available from several satellite missions. Numerical models offer another way to obtain sea-ice thickness at a spatial and temporal coverage that is needed for climatological studies. However, these approaches differ in used processing algorithms and assumptions, temporal and spatial coverage and resolution, and applicability to stakeholder needs like modelling and assimilation, numerical weather prediction, and ship routing. These differences between products have so far complicated the consistent use of the various data products, and there is little consensus about Arctic and Antarctic Sea ice thickness variability and change.

SIN'XS will identify some of these gaps by carrying out in-depth intercomparisons of a wide range of satellite ice thickness products from altimetry and other methods, in close collaboration with an international community of scientific and operational sea ice experts, and in partnership with the WMO Global Cryosphere Watch (GCW). Numerical models shall also be included into SIN'XS. Furthermore, the submission of reference/ground-truth ice and snow thickness measurements is solicited.

SIN'XS will develop joint protocols for the intercomparison of ice and snow thickness products and their validation, using established approaches from the GEO/CEOS Quality Assurance framework for Earth Observation (QA4EO) and by further developing a framework for Fiducial Reference Measurements (FRMs).

3. How to submit data?

Data submission will be done online via the following link, under the "Submit data" section:

https://sinxs-tools.noveltis.fr/

A detailed memo on how to submit data is available under the following link:

https://sinxs-tools.noveltis.fr/assets/NOV-FE-1291-NT-026%20Memo%20for%20dataset%20submission_V1.2.pdf

In order to be able to handle and assess the multitude of expected datasets contributed to the SIN'XS inter-comparison exercise, some minimum requirements must be met by each submitted dataset. Those requirements are described in the memo indicated above.

4. Key dates

The data submission period will be open from October 16th, 2023.

The deadline for data submission will be on June 30th, 2024.

5. Contact

For any question, please contact us at: sinxs@noveltis.fr

Please do not hesitate to also visit the following website: https://sinxs-tools.noveltis.fr/

Ref. NOV-FE-1291-NT-045