

Title

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Svalbard Integrated Arctic Earth Observing System

Theme

Sub- Theme 3: Operating Observing Systems and Networks

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Poster title (brief)

SIOS – an international collaboration to create a regional observing system for Arctic Earth System Science

Abstract - text box

The Svalbard Integrated Arctic Earth Observing System (SIOS) is a collaborative effort to develop and maintain a regional observational system for long term measurements in and around the High Arctic archipelago Svalbard. The purpose of the observing system is to address Earth System Science questions related to Global Change. The observing system and research facilities offered by SIOS build on the extensive observation capacity and diverse world-class research infrastructure provided by many institutions already established in Svalbard. This includes a substantial capability for utilising remote sensing resources to complement ground-based observations. From this solid foundation, SIOS envisions a significant contribution to the systematic development of new methods and observational design in Svalbard. This knowledge can advance other observational networks in the Arctic and elsewhere.

The tools used by SIOS to achieve more efficient use and better integration of the observing system include a distributed data management system, an open access program that includes logistical support, and training and education activities. These and other services

are coordinated by the SIOS Knowledge Centre, the central hub of SIOS, in collaboration with representatives from SIOS's international membership. Working groups and task forces deliver the services in direct and structured dialogue with scientists, user groups, policy makers and other porters of societal and scientific needs.

SIOS brings observations together into a coherent and integrated observational programme that will be sustained. Thus, SIOS offers unique opportunities for research and the acquisition of fundamental knowledge about global environmental change.

SIOS aims to set an example for how to systematically construct observational networks in the Arctic and how joint efforts provide added value to the user community.