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**Theme**

Sub-Theme 2: Implementing and Optimizing a pan-Arctic Observing System

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**Poster title (brief)**

Building multidisciplinary Pan-Arctic observation systems: the INTAROS project

**Abstract - text box**

The objective of the INTAROS project (Integrated Arctic Observation System) under H2020 is to develop multidisciplinary Arctic observation systems that serve different users and application areas. The hypothesis is that platforms and instruments providing multidisciplinary data (atmosphere, ocean, cryosphere and terrestrial sciences) are more cost-effective and sustainable compared to single-purpose systems. Satellite earth observation (EO) data, which plays an increasingly important role in such observing systems, need to be accompanied by in situ measurements from various other observation platforms. In situ observing systems are much more limited due to logistical and cost constraints. The sparseness of in situ data is therefore the largest gap in the overall observing system in the Arctic. An integrated observing system should include data production from a network of platforms as well as data storage in distributed databases and seamless access to the data. The

INTAROS project also develops tools for data analysis, transformation and visualization, including geo-statistical methods for interpolation of spatiotemporal datasets. The evolution into a sustainable Arctic observing system requires coordination, mobilization and cooperation between the existing European and international infrastructures (in-situ and remote including space-based), the modeling communities and other relevant stakeholders.