

Topics (T)
Interactive Presentations (IP)

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THE VALUE OF GEO-DATA IN A CHANGING ARCTIC - IF WE DON'T MEASURE, WE DON'T KNOW.

Abstract

The Arctic region is warming more than twice as fast as the global average, as shown by recent studies. This is observed through decreasing sea ice, snow and glaciers as well as thawing permafrost. Permafrost covers around a quarter of the northern hemisphere's land surface. The Arctic permafrost, including Russia, North America and Scandinavia, is home to 5 million people, at least 120,000 buildings, 40,000 km of roads and 9,500 km of pipelines, as well as airstrips. 70

In this presentation, endorsed by the World Geospatial Industry Council (WGIC), we focus on the risks of multiple climate change impacts including permafrost thaw, reduced sea-ice and glaciers, and sea-level rise on (critical) infrastructure and coastlines, to demonstrate the role of geo-data in understanding, predicting and mitigating these risks. We illustrate a range of remote sensing and earth observation technology enablers across the geospatial industry, that contribute towards understanding and adapting to the changing Arctic.