

## Satellittkommunikasjon og bredbånd – utfordringer og muligheter ved dagens løsninger.

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### Resymé av foredrag

A variety of terrestrial and satellite communication technologies are currently in use in Northern/Arctic regions.

They all have their own unique advantages and disadvantages and there is no technology that solves all user requirements.

Geosynchronous (GEO) satellites are currently the only viable technology that can provide medium/high bandwidth volumes. This technology's main limitation is that it requires line of sight to the satellite which translates to limitations on how far north such satellites can be used.

Other useful background information is that satellite technology is evolving and generally speaking there is a trend towards higher frequencies being used for satellite communication (from C-band to Ku-band, and from Ku-band to Ka-band). At the same time satellite performance continues to increase, through the use of smaller and more focused spot beams.

Over the years, Telenor have conducted multiple measurement campaigns that provide some practical guidelines on how far north various frequency bands can be used. Such recommendations, however, must be used with some caution as satellite links and networks must be designed individually to reflect the fact that satellites often have their own unique characteristics.