

Sodankylä Satellite Data Centre: An Initiative to Establish Real-Time Satellite Data-Aided Services in Finland

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The overall objective of the initiative is to establish basis for the development of sustainable Finnish satellite data-aided monitoring and forecasting services. The work is primarily performed by Finnish research institutes (Finnish Meteorological Institute (FMI) together with other relevant organizations). However, the aim is to outline, develop, promote and demonstrate services that are also linked (a) to co-operation with the Finnish industry and (b) to commercial end-use applications (public-private partnership). A special focus is in applications related to security (marine, terrestrial and aviation). The activity is also directly linked to the international co-operation within the fields of space and Arctic activities. This includes the contribution of Finland to the European Space Agency (ESA) and the EUMETSAT, as well as bi-lateral initiatives of co-operation.

The development work is largely based on the investments that the Finnish Meteorological Institute (FMI) carried out during the years 2009-2012 to establish the national Satellite Service Centre at Sodankylä. The total level of infrastructure investments was 6 M€. A major part of the investment was the procurement of new 7.3 meter X-band high-capacity satellite receiving antenna and the construction of the data processing and product archiving/delivery facility. With satellite receiving station FMI enhances the satellite reception activities at Sodankylä and targets to increase the user base of satellite products in Finland. Also participation to international satellite missions as a ground station facility and remote sensing instrument calibration and validation reference site is important part of future plans

Utilization of satellite imagery and data has not developed in Finland according to the possibilities available. Possibly on for that has been the availability, difficulty of access and/or price of the data. The goal here is the increase the utilization of the satellite imagery and data in its own operations and in Finnish society in general. With its new satellite reception station, FMI can provide the **right** satellite products to end-users **in time** and **reliably**. Currently Sodankylä Satellite Data Centre receives data from several spacecrafts: EOS-Aura, EOS-Terra, Suomi NPP, FengYun-3. Activities starting during 2013 include COSMO-SkyMed SAR-data reception, data processing and data retail.