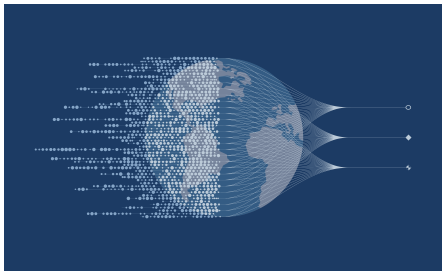

ID: **P3.5-280** Type: **E-poster**

Swedish National Seismic Network

The Swedish National (SNSN) currently operates 80 broadband seismic stations. In addition SNSN receives realtime data from about 120 stations located in Norway, Finland, Denmark, Germany, Poland, the Baltic States, and Russia. SNSN processes the waveform data of this virtual network using the SeisComp and Earthworm systems in parallel. In order to screen out spurious events we generate a common bulletin which contains events that have been located by both systems independently. The common bulletin is very reliable (3 spurious events during the last two years), captures events down to about ML = 1 and contains almost all events with ML > 1.5 in Fennoscandia.
Events of the common bulletin are automatically classified by an artificial neural network as earthquakes, blasts or mining-induced events. The classifier has been developed at SNSN and was implemented during 2023. Comparing the automatic classification with analyst-reviewed classification, we found a 97% match
The realtime automatic common bulletin is available as a simple interactive webpage for the general public, and in quakeml and nordic format for the seismological community. SNSN is forwarding complete event parameters for all earthquake events with ML >= 2 to the European-Mediterranean Seismological Centre.

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Session Classification: P3.5 Analysis of Seismic, Hydroacoustic and Infrasound Monitoring Data

Track Classification: Theme 3. Monitoring and On-Site Inspection Technologies and Techniques: T3.5 Analysis of Seismic, Hydroacoustic and Infrasound Monitoring Data