



3-D crustal velocity model for Norway

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The aim of this work is to develop a new 3-D crustal velocity model for Norway, and the work is being performed as part of both the Norwegian National Seismic Network (NNSN) and the NEONOR2 projects. The NNSN project is being carried out by University of Bergen (UiB) in collaboration with NORSAR, and the NEONOR2 project is led by the Geological Survey of Norway (NGU) with participation from NORSAR and the UiB. The available dataset for the tomography comprises waveform data from permanent stations of the NNSN, the permanent seismic arrays operated by NORSAR, the temporary broadband deployment of the NEONOR2 project, and the stations from diverse temporary field deployments in Norway in addition to an extensive database of phase picks made both at NORSAR and at the UiB. The development of the 3-D velocity model is being performed in stages. Optimal 1-D velocity models are firstly being constructed for different regions of Norway using the VELEST program, which is implemented into the SEISAN program package, and these models are subsequently being applied as the starting models for full 3-D tomography using the FMTOMO program. Results will be presented for both southern and northern Norway.