



3-D velocity model for Norway on-shore and off-shore

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The study aims to develop a new 3-D crustal velocity model for both on-shore and off-shore Norway. The work is being performed as a part of both the Norwegian National Seismic Network (NNSN) and the NEONOR2 projects. An extensive database was created using seismic data from both permanent and temporary seismic stations from different field deployments within Norway. The territory of Norway was divided into several parts and the studies were performed separately for each part in two steps: 1) the optimal 1-D velocity models have been obtained using the VELEST program, which is implemented into the SEISAN program package, 2) full 3-D tomography was performed using the FMTOMO program with the optimal 1-D velocity models as reference models. We thoroughly examined the resolution of inversions and defined its proper parameters. The inversion results show different variations in the distribution of seismic P-wave velocities within different parts of Norway.