

Figure S1. Comparison between different types of time-domain normalisation using a daily waveform (01/04/2011) recorded at station A0293. (a) Raw waveform. (b) Processed waveform with instrument response, mean and trend removed. (c) Clipping method applied. (d) Running Absolute Mean Normalisation (RAMN) applied.

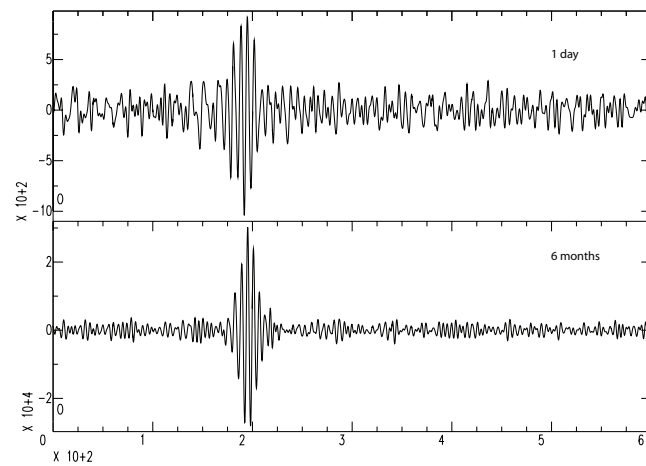


Figure S2. Causal side of a raw cross-correlation of 1 day compared with a raw cross-correlation stack of 6 months for station pair 3522 - 3434.

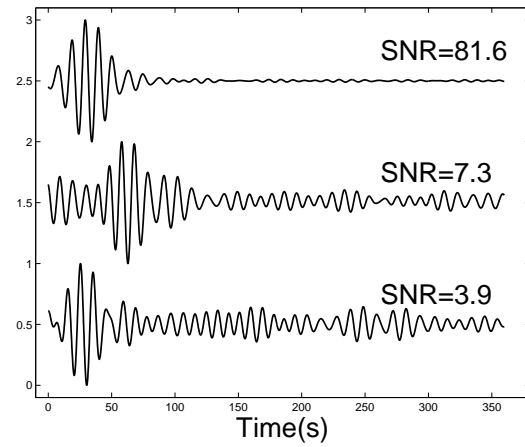


Figure S3. Example of cross-correlations with SNR lower, equal and larger than 7 (value considered the threshold for cross-correlations acceptance). The cross-correlations presented are filtered for a dominant period of $T \sim 10$ s and self-normalised to 1.

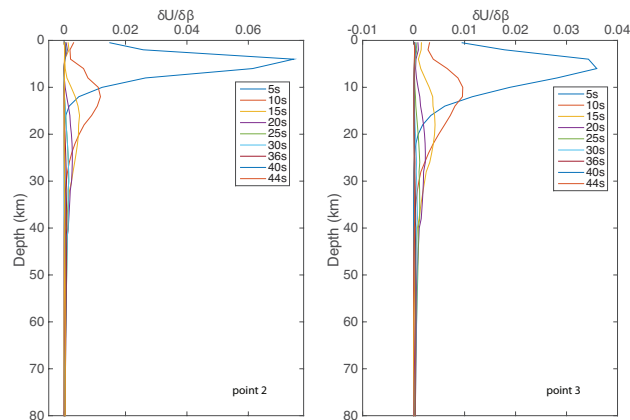


Figure S4. Sensitivity Kernels calculated for region 2 and 3 that correspond to MCP and Kaapvaal craton respectively.

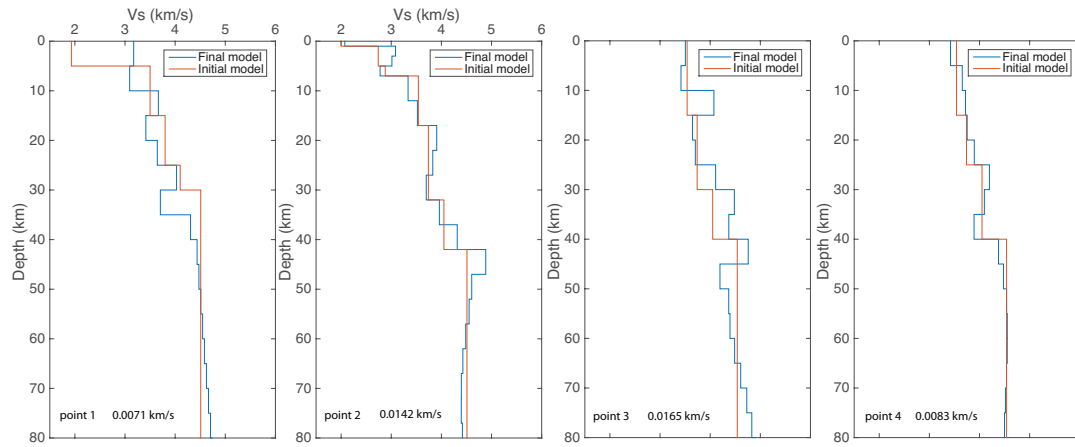


Figure S5. 1-D depth inversion profiles for four different selected regions in Mozambique. The red line in all profiles represent the starting model for each particular region and the blue line represents the final model after inversion. CRUST1.0 (Laske et al 2013) was used as reference for the starting models. The misfit errors of the final model are presented in the bottom of each profile.