Spectral Balancing for Resolution Improvement through Spectral Decomposition:

Chopra and Marfurt (TLE, February 2016) demonstrated a process for effective Spectral Balancing using an Amplitude Friendly scaling derived from Spectral Decomposition Data Sets for Temporal and Lateral Resolution Improvement and consequent bandwidth extension. This process doesn't boost background noise or create non-geological events, common artifacts of wavelet compression techniques for improving resolution. The attached figure from their TLE Article demonstrates its application on a vertical line through a seismic volume (a) before and (b) after spectral balancing. Note the small channel (yellow circle) and clear edge (green circle) and improved vertical resolution (cyan ellipse). The broader bandwidth of (b) is evident.

DLBARG PETROLEUM PRIVATE LIMITED (DPPL) in technical collaboration with SamiGeo Consulting, Calgary, Canada offers this service for the Indian Clients. SamiGeo Consulting, where Mr. Satinder Chopra is the Founder and President, has developed the workflow and offers it globally.