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- **Motivation:** Urban noise elevates station backgrounds; burying sensors attenuates surface noise.

- **What we found?** Noise drops with depth above ~1 Hz.

Detectability improves mainly at higher bands for local/regional ranges, with limited gains at low frequency and teleseismic distances.

- **So what?** In noisy areas, 150–200 m is impactful mostly for closer events.

Reuse an existing borehole to reduce cost and speed installation, and pair a deep sensor with a surface instrument for an ideal setup.

