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strategy for the development of metrology to enhance the sustainment of the seismic and infrasound component of the IMS network

With the majority of the Comprehensive Nuclear-Test-Ban (CTBT) International Monitoring System (IMS) network now fully operational, management of the network is undergoing a significant transition from establishing capability towards sustainment. The challenge is not limited to maintaining these capabilities, but extends to optimising the IMS network performance and providing the best possible data to make them as informative as possible to all relevant users. Metrology has an important role in this challenge. The metrology for infrasound sensors has developed since several years, advancing the approach to seismic monitoring: as an example, novel methods of infrasound on-site calibration and the application of measurement traceability have been successfully developed. Although there are still several areas for further developments in infrasound technology, some recent innovations are ready to be transferred to seismic sensing. These developments have multiple aspects and require the contribution of multiple stakeholders, working in cooperation with the Provisional Technical Secretariat (PTS). The coordination of such efforts needs careful planning, and a systematic strategy identifying priorities, goals and necessary steps to be taken to align with the sustainment strategy of the PTS. This work will describe the strategy, technical contents and achievements for infrasound and seismic technologies.

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