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## data for treaty monitoring

*Thursday, 1 July 2021 11:00 (1h 30m)*

The International Monitoring System (IMS) was designed as a sparse global network with the purpose of detecting nuclear explosions. The sparseness of the network, the complexity of wave propagation in the Earth's interior, the oceans and the atmosphere and the lack of accurate models that describe it limit the accuracy of the location of events detected by the IMS stations. To improve location capabilities the IMS depends on reference events, also known as ground truth events, that is, events the spatiotemporal origin of which is known with high confidence. The characterization of events as ground truth requires the use of dense national and regional networks and cooperation among National Data Centres (NDCs). Furthermore, such cooperation enhances the monitoring capabilities of the NDCs as it allows them to surpass the capabilities of the IMS. This panel will discuss the synergy between the IMS, regional experts and the NDCs and in particular the benefits Treaty monitoring has reaped from regional expert contributions, how the CTBTO contributes to regional needs and how this synergy can be facilitated and further extended in the future.

### Promotional text

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