Challenges of Over-Reliance on Software and Applications during CTBTO On-Site Inspections

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This poster highlights the challenges of over-reliance on software and applications during CTBTO On-Site Inspections

On-site inspections are the CTBT's ultimate verification tool, and the Geospatial Information Management System (GIMO) is critical for mission planning and decision-making in the field.

The main issue is that over-reliance on GIMO introduces vulnerabilities.

Natural barriers like rugged terrain, extreme weather, and poor networks can disrupt GPS, devices, and real-time updates. At the same time, **technological barriers** such as software bugs, cybersecurity risks, and training gaps may delay missions, reduce efficiency, and compromise data reliability.

Over-reliance without field adaptability = inefficiencies and errors

The impact is clear: operational delays, errors in mapping and reporting, and reduced confidence in verification outcomes.

The way forward is to strengthen inspector training, combine digital tools with traditional field techniques, and improve system resilience.

In conclusion: balancing innovation with resilience ensures OSI reliability in unpredictable environments.