



Session Outcome Document

The Power of Satellites in Emergency Alerting and Protecting Lives

GSOA - ITU

8 July 2025, 15:00 to 15:45

<https://www.itu.int/net4/wsis/forum/2025/Agenda/Session/339>

Key Issues discussed: Looking Beyond 2025

1. **Urgency of Enhancing Early Warning Systems (EWS):** Driven by the Early Warnings for All initiative, with a focus on ensuring that life-saving alerts reach the most vulnerable populations.
2. **Last-Mile Connectivity:** Recognized the critical need for robust communication solutions to deliver alerts to remote and underserved communities where terrestrial infrastructure is absent or damaged.
3. **Role of Satellite Technologies:** Emphasis on the unique capabilities of Direct-to-Device (D2D) satellite communication, which technology is now being deployed and operational, for bridging both digital and disaster-preparedness divides.
4. **Need to Accelerate D2D Deployment in Rural and Remote Areas:** Acknowledged that communities most at risk—particularly those in rural and underserved regions—need immediate access to D2D technologies that function without terrestrial infrastructure.
5. **Barriers to Implementation:** Challenges around interoperability, regulatory readiness, and integration with national disaster management and early warning systems.
6. **Data Integration and Real-Time Monitoring:** Emphasized the importance of using AI to process satellite imagery almost real-time to improve situational awareness and combining such data with satellite communication systems to deliver predictive, actionable alerts.

Key recommendations:

1. **Scale D2D Satellite Technology for Emergency Alerting:** Support the development and deployment of satellite-based D2D services that can operate without additional hardware or infrastructure on the user side.
2. **Promote Open Standards and Interoperability:** Ensure that emergency communication systems are interoperable across technologies and jurisdictions to allow seamless integration.



3. **Enhance Cross-Sector Collaboration and Foster Partnerships:** Strengthen public-private partnerships among governments, satellite operators, space agencies, humanitarian actors, and telecom regulators to accelerate innovation, deployment, and resilience of early warning infrastructure.
4. **Integrate Satellite Capabilities into National EWS Frameworks:** Mainstream satellite services—such as situational awareness platforms and real-time alert delivery—into public alerting strategies.
5. **Ensure Inclusive Access:** Design systems that prioritize vulnerable populations, including those in remote or disaster-prone regions, and minimize barriers to adoption.

Forward-Looking Action Plan for the WSIS+20 Review and Beyond

1. **Adopt Global Guidelines on Satellite-Based Early Warning Integration:** Develop and promote aligned frameworks that guide countries in adopting and regulating satellite-based alert systems.
2. **Invest in D2D and Deployment:** Mobilize public and private sector resources to scale D2D innovations, focusing on affordability, scalability, and user-friendliness.
3. **Launch Regional Pilot Programs:** Establish demonstration projects to test D2D solutions in vulnerable regions, with a focus on real-time performance and local system integration.
4. **Standardize Interoperability Protocols:** Lead global standardization efforts through the ITU and relevant international bodies to ensure compatibility across satellite providers and national systems.
5. **Strengthen Policy and Capacity for Satellite-Enabled Disaster Risk Reduction:** Provide technical assistance, regulatory support, and capacity-building for developing countries to leverage space-based technologies effectively.