Session Outcome Document

Resilient infrastructure for a sustainable future

International Electrotechnical Commission (IEC)

8 July 2025, 16.00-16.45

https://www.itu.int/net4/wsis/forum/2025/Agenda/Session/267

Key Issues discussed: Looking Beyond 2025

Different stakeholders from IEC, Marconi Society Internet Resilience Technology Institute (IRTI), CERN and UNDRR stressed the need for systematic approaches across the whole arc of tech to society – from thinking about how technologies will evolve, building an ecosystem and working collaboratively, to the need for standardization and capacity building.

Tangible Outcomes of the session

A call to action for collaboration between the panelists, and scope to pursue participating organizations:

- We cannot afford to wait for disruptions, to repair. The Internet has become too critical in many processes for that. We need to pre-emit, build in the necessary redundancy, audits, local traffic routing, and infrastructure hardening
- We need to seek and support cross-sectoral collaboration between digital, energy, finance and emergency response communities.
- Capacity building is also needed locally – as local infrastructure needs and challenges are much bettter understood at a local level. By sharing global knowledge and insights with local communities the necessary measures can be designed and implemented where they need to be most.

Key Recommendations and Forward-Looking Action Plan for the WSIS+20 Review and Beyond
This session directly supports WSIS Action Lines C2 and C5 by promoting resilient ICT infrastructure and strengthening trust in digital systems. It emphasized the need for secure, interoperable networks and proactive cybersecurity strategies, along with global collaboration and capacity building to ensure safe, inclusive connectivity for all.

Key suggestions going forward:

•   Resilient infrastructure as a foundation for sustainability: Participants emphasized that robust ICT systems are essential to achieving socio-economic development, particularly under mounting climate and cybersecurity pressures.

•   Connected systems:

Building resilient infrastructure requires taking into consideration the interdependent nature of infrastructure systems and we cannot look at infrastructure sectors alone. In the wake of an all-electric and connected society, instead of fragmented systems, a connected infrastructure model reduces environmental footprints, strengthens cybersecurity, and simplifies implementation.

•   Accelerated standards development: Standards play a crucial role in ensuring effective, efficient and safe implementation of the infrastructure around us. Fast-tracking global standards to ensure infrastructure durability, especially under extreme climate conditions and digital threat vectors, is of key importance.

•   Collaboration, capacity-building and progress: Global collaboration and knowledge-sharing can improve efficiency and reduce overlap in infrastructure development efforts. There is an urgent need to invest in long-term training and support for local technologists, scientists, and decision-makers, particularly in frontier fields like AI and sustainable energy.