

Session Outcome Document**Meaningful Connectivity by Design – The Role of Technical Standards in Connecting the Unconnected****IEEE**

Monday, 06 July 2026, 10:00-10:45 CEST, Room K1, ITU Montbrillant Building

<https://www.itu.int/net4/wsis/forum/2026/Agenda/Session/518>

Key Issue: With 2.9 billion unconnected individuals, how do we build connectivity solutions that are affordable, feasible and localized solutions

Themes:

- **Understand Core Barriers:** Understanding the core issues that drive the connectivity gap is key: regulatory challenges (i.e. spectrum), infrastructure, affordability and digital literacy and trust.
- **Deploying Decentralized, Community-Led Network Solutions:** Develop and support development of localized, community-managed networks to reach areas where traditional commercial models are not viable.
- **Leveraging Open Standards as Deployment Blueprints:** Using open, interoperable standards (such as IEEE 802 frameworks) as customizable blueprints adaptable to local infrastructure, community needs, and regional languages.
- **Utilizing Replicable, Low-Cost Infrastructure:** Maximizing existing local assets through practical, highly replicable field frameworks (like the *CR Bolo Project*) to achieve immediate, low-cost connectivity.

Key Outcomes of the Session

- **Key Takeaway 1:** Effective connectivity solutions require evaluating each community's unique ecosystem of challenges and design appropriate solutions that address regulatory barriers, infrastructure limits, affordability, digital literacy, and trust intersect.
- **Key Takeaway 2:** Rather than relying solely on traditional, large-scale commercial operator deployments in low-population zones, consider a community based decentralized approach that empowers local communities to deploy and manage localized networks. Utilize low-cost, replicable technology frameworks (such as the *CR Bolo Project* model) built on open interoperable standards.
- **Key Takeaway 3:** Technical standards can operate as blueprints to design localized connectivity solutions. By tailoring these blueprints to specific regional infrastructure, community needs, and local languages, you can efficiently scale affordable internet access to the most remote populations.

Key Recommendations and Forward-Looking Actions

To effectively bridge the digital divide in underserved areas, the following strategic actions focus on community-led network deployment and the localization of technical blueprints:

- **Community-Centric Connectivity Solutions:** Support localized, community-managed networks in low-population zones using low-cost, open, and replicable frameworks like the CR Bolo Project model.
- **Standards as Blueprints:** Apply technical standards as flexible frameworks that can be customized to fit existing regional infrastructure, community requirements, and local languages. This customization enables the systematic and affordable expansion of internet access to remote populations.