Executive Summary

The Red Cross and Red Crescent and its coalition of partners strive to make 1 billion people safer by 2025.

In the next decade, we believe emerging technologies will play an important role in facilitating community-level knowledge and health, connection, organization, economic opportunities, access to infrastructure and services, and management of natural resources—that is, the characteristics that make a safe and resilient community. To move closer toward this ambitious goal and address the challenges that commonly delay or prevent people living in urban centers from making a full recovery following emergencies, the Red Cross and Red Crescent designed the Global Dialogue on Emerging Technology for Emerging Needs.

In the first 15 months of the dialogue, the Red Cross and Red Crescent conducted regional consultations in six technology hubs to explore barriers to resilience and to learn the underlying attitudes, beliefs, questions and concerns influencing each urban community's perceptions of emerging technology. We honed in on emerging technology solutions they believe will not only address their emergency needs but also enhance their daily lives, as they are introduced to consumers over the next five to 10 years.

Throughout the dialogue, community members and experts shared their advice and priorities with the Red Cross and Red Crescent. Their sentiments serve as formal recommendations to assist technologists, business leaders, governments, researchers and nonprofits as they consider the design, use and cost of these innovations. The Red Cross and Red Crescent urges these actors to take note of the following five commonly shared requests from across the globe, ranging from the way technology solutions are introduced to the most desired humanitarian use cases.

1. Engage local community members in the design, manufacturing and introduction of new technology solutions.

2. Support consumer access, management and ownership of emerging technologies.

3. Research the impact of technology on community resilience.

4. Establish supportive policies, systems and guidance for the development and use of emerging technologies.

5. Invest first in four emerging technology use cases that address actual barriers to resilience:

   - Wearable devices for providing early warning, supporting search and rescue, and reconnecting families

   - Unmanned aerial vehicles for temporarily restoring communications networks and delivering critical relief items, such as medicines, post-disaster

   - Smart home sensor networks for sensing and reporting fires in informal settlements/slums

   - Biometric scanners in ATM-like kiosks for restoring lost documentation to prove identity, access assistance and reconnect families

To achieve these ambitious goals, the Red Cross and Red Crescent will need the support of a coalition composed of technologists, business leaders, government officials, researchers, policy experts, nonprofits and others. To advance these ideas and remove the barriers to community resilience, each sector will need to devote its specialized expertise as well as resources of time, funding, and unique products and services. And to meet the growing global demand for innovative tools and approaches, we also will need to coordinate our work, identify additional collaborators and leverage each other's strengths.

American Red Cross

International Federation of Red Cross and Red Crescent Societies