

Annex A

Areas of interest for the 2017 technology fair

1. Innovations in the area of encampment and mobility

- Shelter / accommodation solutions of high flexibility, durability and elevated levels of comfort.
- Modern techniques to find sources of water, waste treatment systems, water purification technologies, and solutions to collect rainwater and atmospheric water.
- All terrain utility vehicles (ATUV)
- Cargo container tracking solutions

2. Innovations in the area of Safety and Security (force protection, camp protection and persistent surveillance)

- Sense and warn systems (mortar and artillery detection, and camp and personnel alert system)
- Ground movement radar surveillance systems
- Aerostat LTE provisioning systems
- Mobile and fixed surveillance cameras with extended day and night surveillance capability, mast and aerostat mounted
- CCTV systems, electronic barriers and access control suites with associated software
- Ground and seismic sensors
- Integrated operation management platforms for the above technologies (common operating picture / situational awareness)
- Micro and mini UAV, hand-launched (electric propulsion); mini fixed wing UAV, with catapult or similar launcher (electric propulsion). Use of Interchangeable payloads for cameras and other sensors or communications devices.
- Mobile tethered mini UAV for convoy protection purposes
- Other long range detectors and combinations of radars, cameras, etc. to detect threats and movements around UN camps and/or against civilian populations under UN protection.

3. Innovations in the area of connectivity

- Internet over satellite connectivity with terminals not larger than 1.2 meters, 20 Mbps down/5 Mbps up at low cost per Mbps
- Hand held and car-installable equipment and services for satellite based communications, voice, text and data; preferable also supporting the use of cell phones as terminals (Wi-Fi / Bluetooth, etc.)

- Push To Talk (PTT) over satellite (equipment and services) for rapid deployment, infrastructure-less emergency and security communications
- Mesh IP radio networks, supporting cell phone connectivity in the absence of standard GSM service
- Emergency, rapid deployable LTE ruggedized systems, tower and/or aerostat mounted

4. Innovations in the area of power systems

- New solutions for energy generation and storage, and low consumption devices.
- Highly reliable power sources with high percentage of green energy generation to support 24X7 operation of ICT systems in the absence of city power for many hours at time. (i.e. Power outages of 8 to 24 hours)
- High reliability, low contamination risk batteries (12 Volts)

5. Solutions in the area of rapid deployment

- Rapid deployable camps of 350 persons, able to be deployed in a single green field location in a broad range of climatic conditions. It should provide camp infrastructure including accommodation for 350 and office space for 200. It should have its own efficient energy production, water and waste water treatment capacity. It should be flexible and scalable enough to accommodate infrastructure elements provided by the UN (communication systems). The camp layout should be adaptable to different levels of protections and operational requirements