

DISASTER MANAGEMENT

Mobile broadband
communications are
essential

Babis Mantelis - October 2023



Disaster Management – Broadband communications are essential

Mobile Broadband: Foundation for operational excellence

MAIN TASK



PREVENT



PROTECT



RESPOND

IMPROVE

Decision making

Response time

Multiple agency / cross
border collaboration

Information sharing

HOW: MOBILE BROADBAND

Real time multimedia exchange

Visuals/Heat Maps/
Text/Weather/Traffic/3D Maps

Situational awareness

Evidence based decision making

(bio metric) Sensors, Cameras, Drones
Internet of Life saving things

Harmonized communication

Supported by global standards

Disaster Management

Mobile broadband communications are essential – Key elements

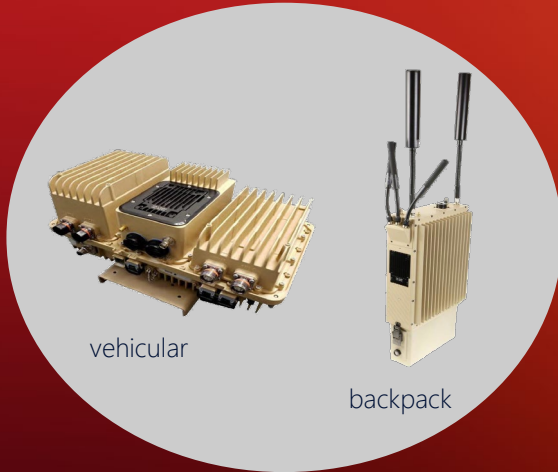
Coverage

Drones

Connected
rescue team

Disaster Management

Coverage - Connectivity options for ad-hoc coverage



**Deployables
for the tactical edge**



**Transportable solutions for
temporary macro coverage**



**Containerized /
Cell-on-wheels**

Disaster Management

4G/5G connected drones



Prevent

Detect

Rescue

Disaster response



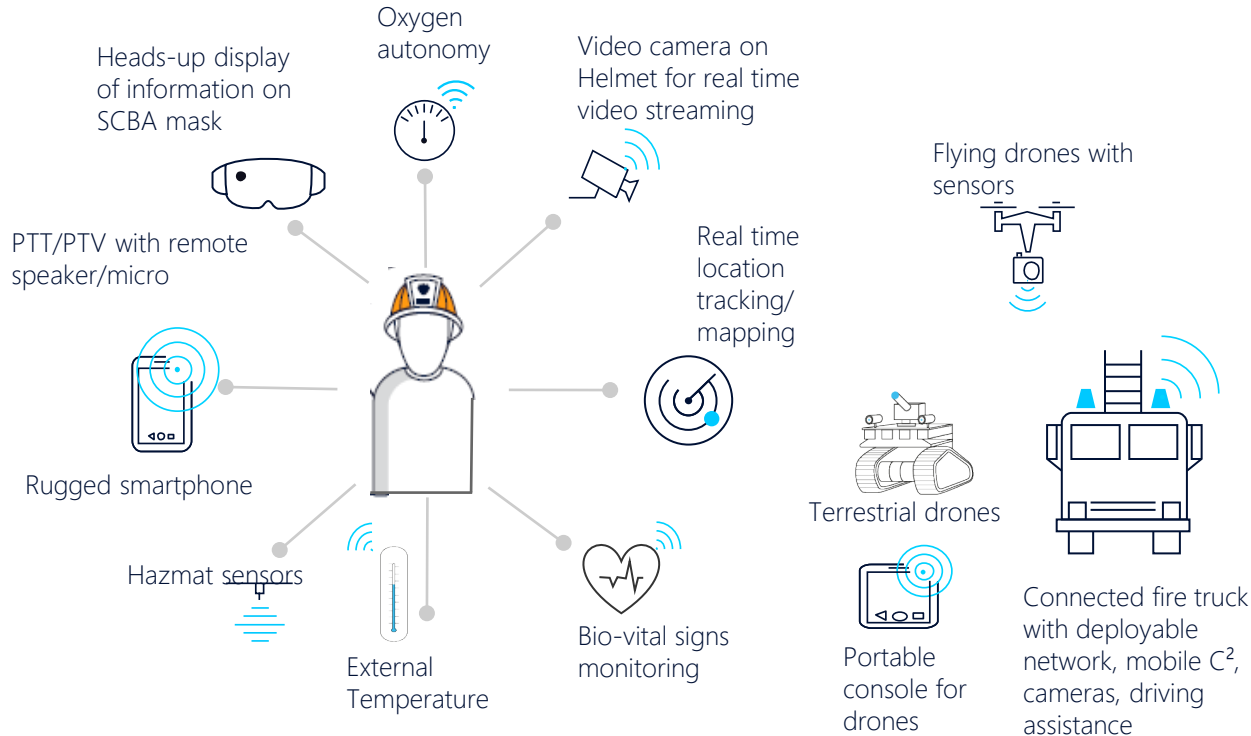
Search & rescue



Drones can be deployed in minutes to an incident scene, remotely controlled LoS or BLoS, can be pre-programmed for automatic missions, and equipped with various payloads

Disaster Management

The hyper-connected firefighter



Disaster Management

Connecting the rescue team

Drivers for Mobile Broadband

- **Real-time sharing and analysis of bio-vital signs:** leveraging advanced IoT for collecting and sharing bio-vital signs of a victim with the remote hospital and patient's doctor while on the move (ambulance/helicopter/transport stretcher...)
- **VR goggles:** provides remote doctors with live immersive video and voice communication with the ambulance as if they were physically on-board
- **Remote telemedicine:** ultimately could allow an expert doctor/surgeon to perform simple remote surgery when critical to save victim's life (requires appropriate ambulance setup)

What 5G brings

- High UL data rate from ambulance to hospital for high-definition video and sophisticated ambulance medical tools outputs
- Network slicing will offer a defined QoS with a consistent experience nationwide.
- Very low latency needs and high reliability for remote operation on incident site



NOKIA