



Climate Change & Disaster Management

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About **FARO**

Our Mission

We enable customers to capture, measure, interact with and share data from our physical world in a virtual environment and then translate this information back into the physical domain.

Our Vision

FARO is a global leader in 4D Digital Reality solutions (hardware/software/services). Leveraging 40 years of industrial experience in the capture and digitalization of the physical world, our solutions significantly improve our customer's productivity by delivering workflow-based information, via a cloud-based, Software as a Service (SaaS) business model.

Understanding the Challenge:-

1. Natural & Environmental Challenges

Difficult terrain (mountains, coastal belts, dense forests)

- Flood after cyclone
- Landslide after heavy rainfall
- Fire after earthquake



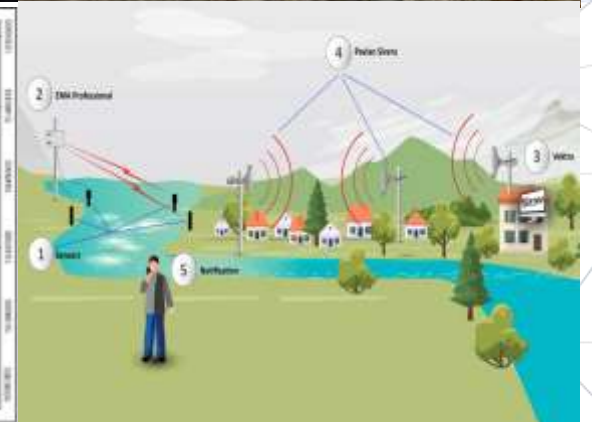
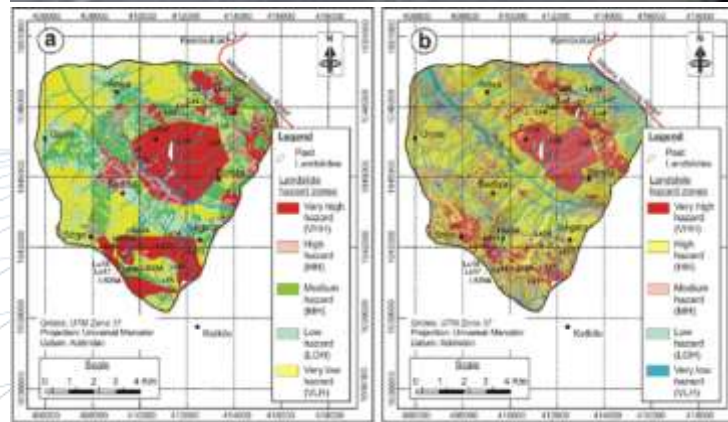
2. Technical & Infrastructure Challenges

- Poor early warning system
- Roads
- Bridges
- Real-time data
- Accurate maps



Role of Technology in Disaster Management:-

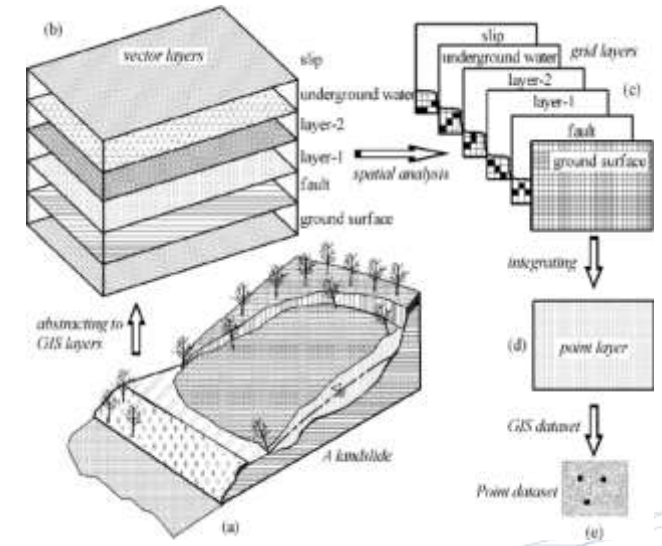
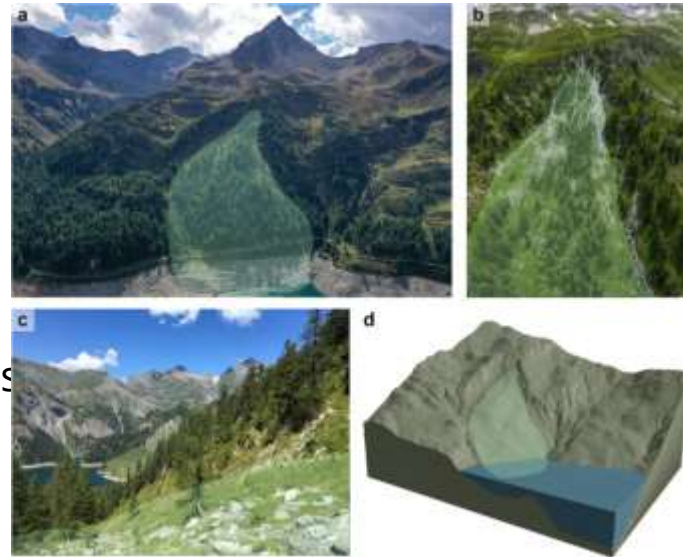
- Technologies like 3D laser scanning ,GIS, satellites, drones:
- Precise mapping
- Real-time monitoring
- Data-driven decision-making



Why Data is the Backbone of Climate and Disaster Management:-

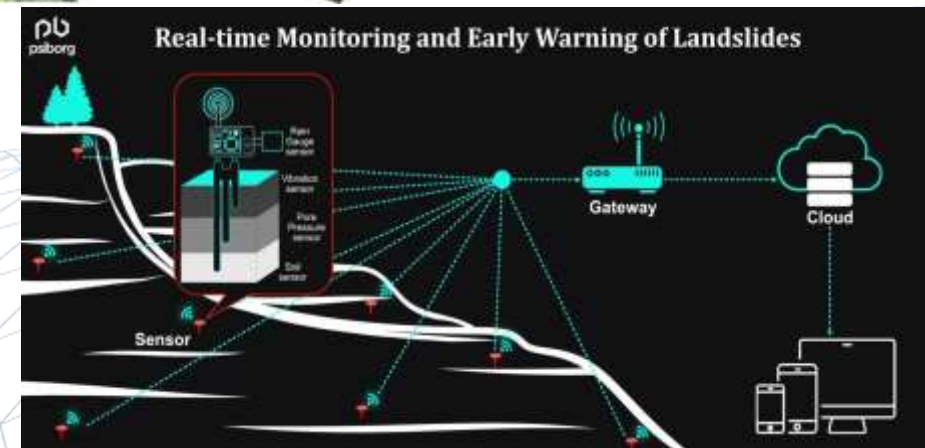
1. Landslides:-

- 3D terrain data and slope analysis identify:
 - **Unstable hill slopes**
 - Soil movement and cracks
- Continuous monitoring helps in:
 - Issuing **early warnings**
 - Planning **safe road alignments**
 - Avoiding construction in high-risk zones



• Earthquakes

- High-resolution maps locate:
 - **Fault lines**
 - Weak soil zones
 - Dense building clusters
- After earthquakes, 3D scans and satellite images help in:
 - **Rapid damage assessment**
 - Identifying **collapsed and unsafe structures**
 - Planning **rescue routes**



What is FARO 3D Laser scanner :-

The FARO 3D Laser Scanner is a high-precision, advanced surveying instrument used to capture real-world objects, buildings, terrain, and environments in the form of accurate 3D digital data. It is manufactured by FARO Technologies and is widely used in **disaster management, construction, forensics, engineering, and smart city planning.**

Key Features of FARO 3D Laser Scanner

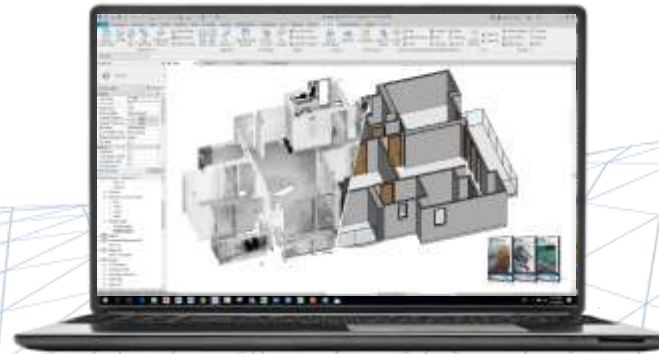
- Millimeter-level accuracy
- Fast scanning speed
- Non-contact and safe scanning
- Captures millions of points per second
- Works indoors and outdoors
- Produces true-to-scale 3D models



Our Hardware Portfolio



Our Software Portfolio



FARO®



FARO Premium Solution

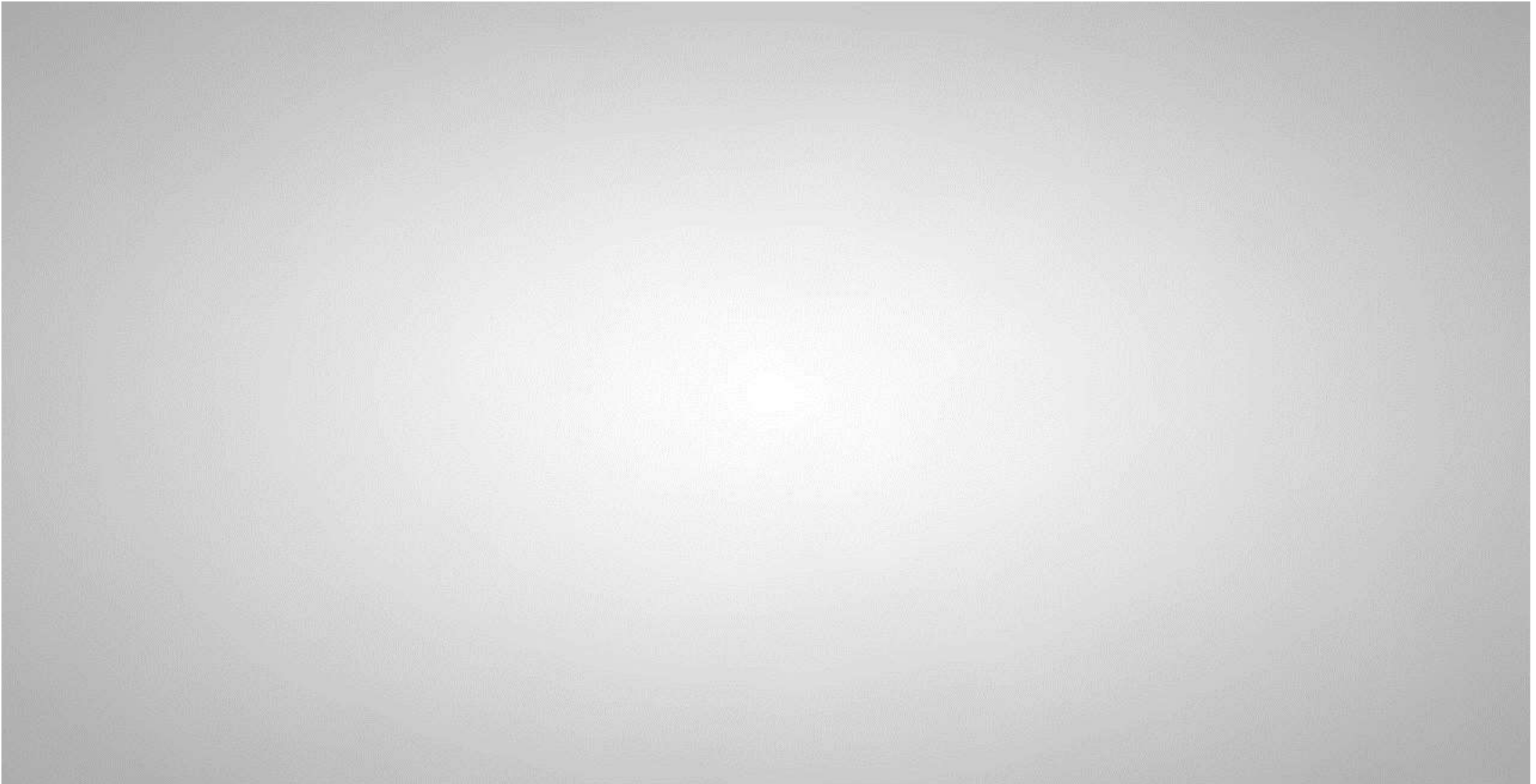


SPHERE
XG



Stream

FARO FOCUS PREMIUM SCANNER:-





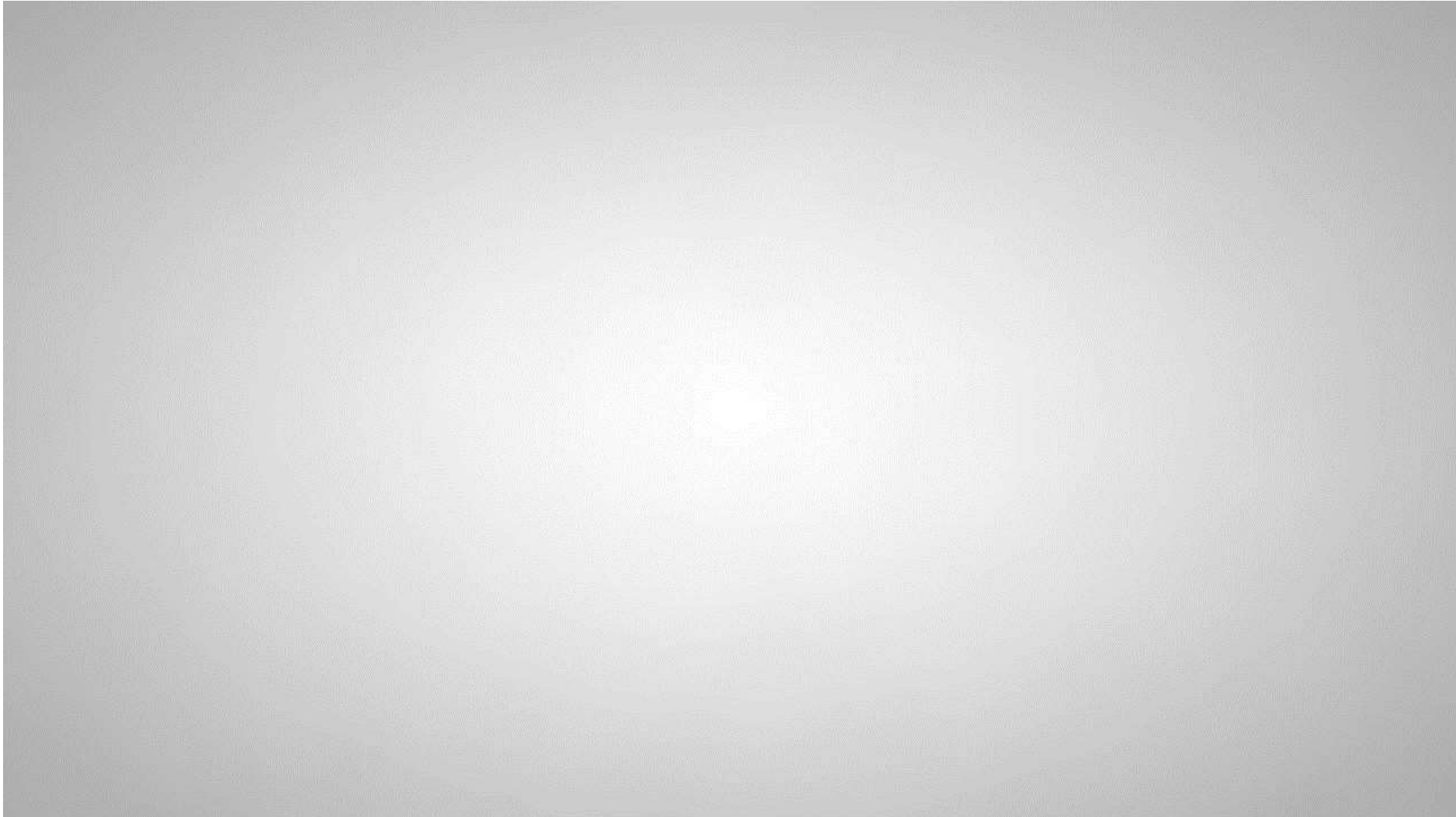
FARO Orbis Premium



FARO

FARO
AMETEK

Orbis Hybrid Scanner



Orbis Hybrid Scanner



Scan more in less time with higher precision

Complete up to **10x more scans** in the same time



Complete scan workflows with one device

Orbis can replace a mobile scanner and entry-level TLS in one device with **Flash Scans**



Almost eliminate time registering data

Process and register a slam scan in one click, **reduce touch time by up to 90%**.



Reduce labor costs and risks

Save up to \$56K in annual labor and complete the same number of scans

“Precision in Motion, Simplicity in Action”

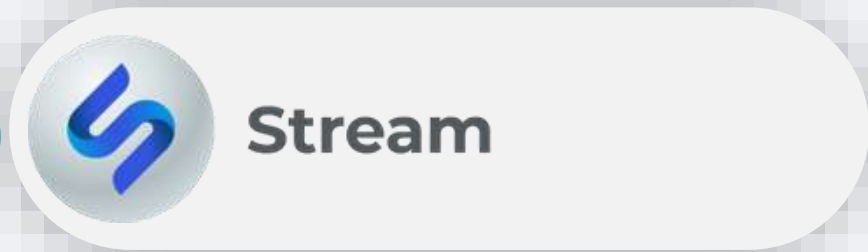


FARO
BLINK

Industry's First Mainstream Scanning Solution

*From Site to Insights,
In a Blink*





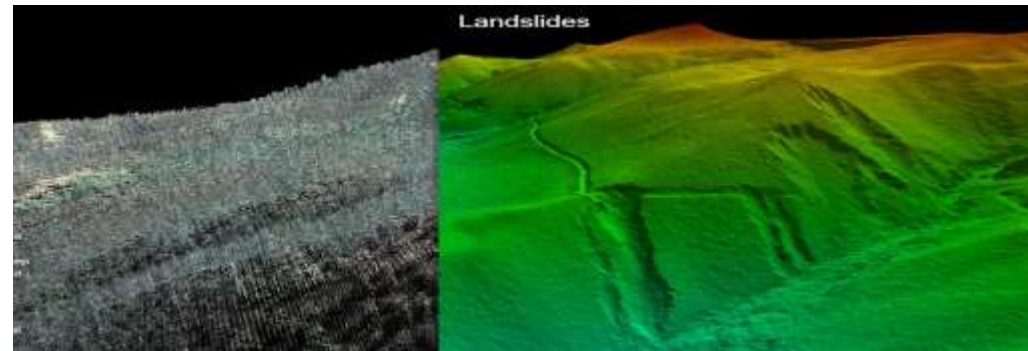
- **Full scanner control from mobile app**
→ improved user experience
- **Real time feedback during scan capture**
→ immediate check of missing data/area
- **Pre-registration of scans directly onsite**
→ confidence that final registration will be successful due to data completeness
- **Add complementary data with annotations**
→ info enriched data set
- **Direct data upload into FARO Sphere**
→ immediate project sharing, enablement of remote working and collaboration



From Maps to Action: How FARO Supports Disaster Management

1. Pre-Disaster Preparedness

- High-resolution floodplain mapping
- Landslide-prone slope analysis
- Coastal erosion monitoring
- Community risk zoning & evacuation planning

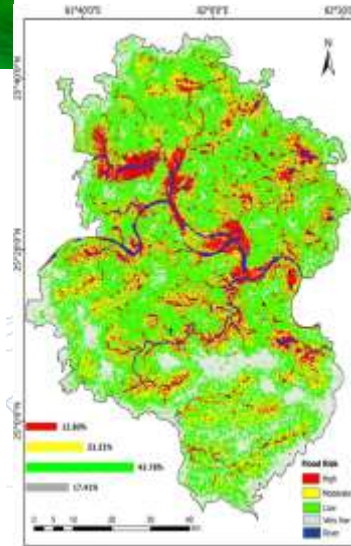


2. During Disaster (Rapid Response)

- Real-time damage assessment
- Safe search & rescue planning
- Obstruction and debris volume mapping
- Faster decision-making for authorities

3. Post-Disaster Recovery & Rehabilitation

- Structural damage analysis
- Reconstruction planning
- Insurance and compensation assessment
- Monitoring environmental recovery



Thank You