



# SMART MOUNTAIN5G

Safety and Security Use cases



# A project for Competitive and Sustainable mountains

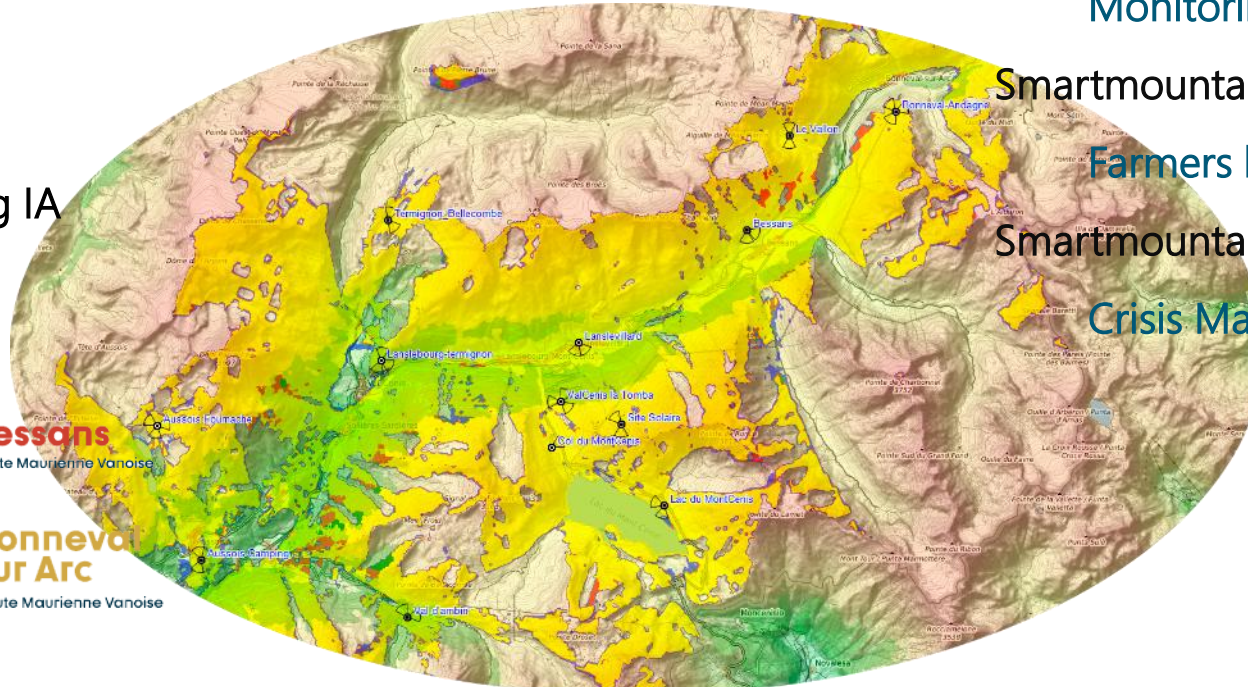
## The Challenges

Deployment of a 5G private network for Public and IOT Services in a mountain valley:

- >150 km2 coverage
- 14 transmitters
- Satellite Backhaul

A large set of use cases

Advanced services using IA



## SmartMountain 5G Use Cases

Smartmountain Energy

Securing Hydraulic Production installations

Smartmountain Tourism

Monitoring Skis infrastructure - Workers security

Smartmountain Agri

Farmers live Conditions and Herds Monitoring

Smartmountain Safety

Crisis Management, Environmental monitoring



# SMARTMOUNTAIN5G – Emergency, Safety and Security Use cases

## WP4: Smartmountain Energy

Monitoring of Dam and water intake

## WP5: SmartMountain Tourism

Security of workers and events  
White Zone coverage

## WP7: SmartMountain Safety

Avalanche corridors and critical site monitoring



# SmartMountain 5G

## Safety and Security Features



5G bubbles for specific areas coverage

Val D'Ambin



Mission critical features for workers and rescue teams

Geolocalisation and emergency alert message

Secure Channels – Team on the run



Avalanche Corridors and roads survey for security

Gazex, Cameras ...



HQ Vidéo – Push to talk - RedCap



# Innovative uses cases based on IA

Edge computing Service platform  
IOT Terminal management  
Network Monitoring  
AI Machine Vision

## SMART Ski Station



### ✓ Real-time avalanche and obstacle detection

AI cameras continuously monitor unstable snow accumulations. Alerts are sent immediately to patrollers

### ✓ Local safety alerts even offline

The systems work without a network and trigger alerts everywhere. Rescue teams receive the information within seconds.

### ✓ Dynamic adjustment of slopes based on crowd levels

The digital twin tracks attendance in real time. Automatic recommendations guide the opening and closing of slopes.

### ✓ Predictive maintenance of ski lifts

Sensors check the wear of motors and cables. AI schedules maintenance before any breakdown.



DATA ANALYTICS



PRIVATE 5G



MANAGED  
EDGE COMPUTE





AN INNOVATIVE, POWERFUL AND SECURED INFRASTRUCTURE  
FOR MOUNTAIN SERVICES

TO KNOW MORE ABOUT THE  
PROJECT

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