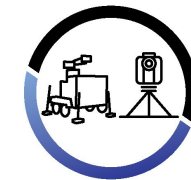
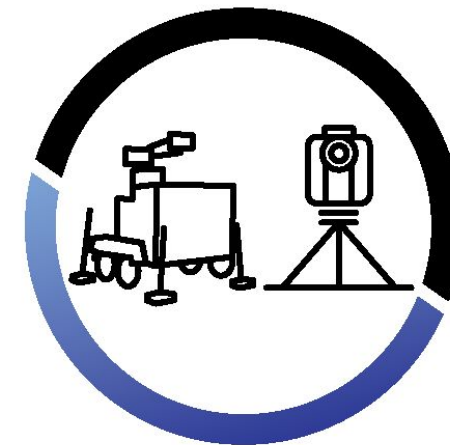




HEXAGON



HxGN MineMonitoring



HxGN MineMonitoring

Presented by Muele Radzilani



Monitoring Systems Solutions

**Integrated Software
Solutions**

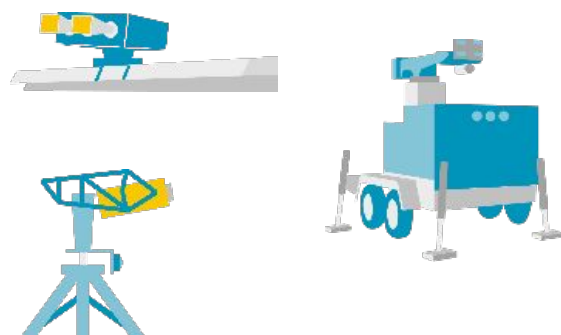


**Customer Support
& Services**

We provide our Customers with a comprehensive portfolio of Mine Monitoring Solutions:
from high-performance radar systems, to powerful software applications, from customized support packages to
professional Monitoring Services.

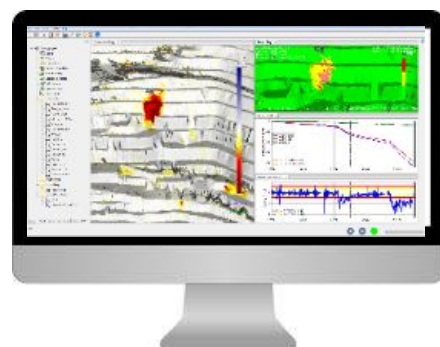
A complete portfolio of solutions for slope stability hazards management

Slope Monitoring Radars



IDS
GeoRadar

GUARDIAN
FPM360



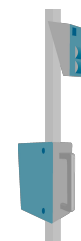
Geodetic Sensors



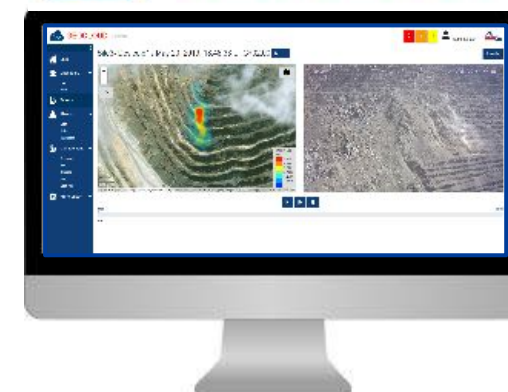
HxGN GeoMonitoring Hub



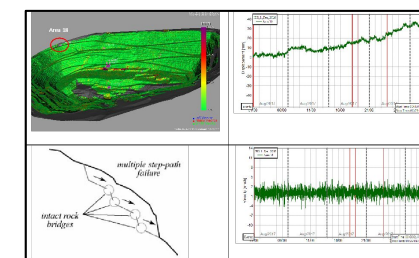
RockSpot



Geo **GEOCLOUD**



Services & Support

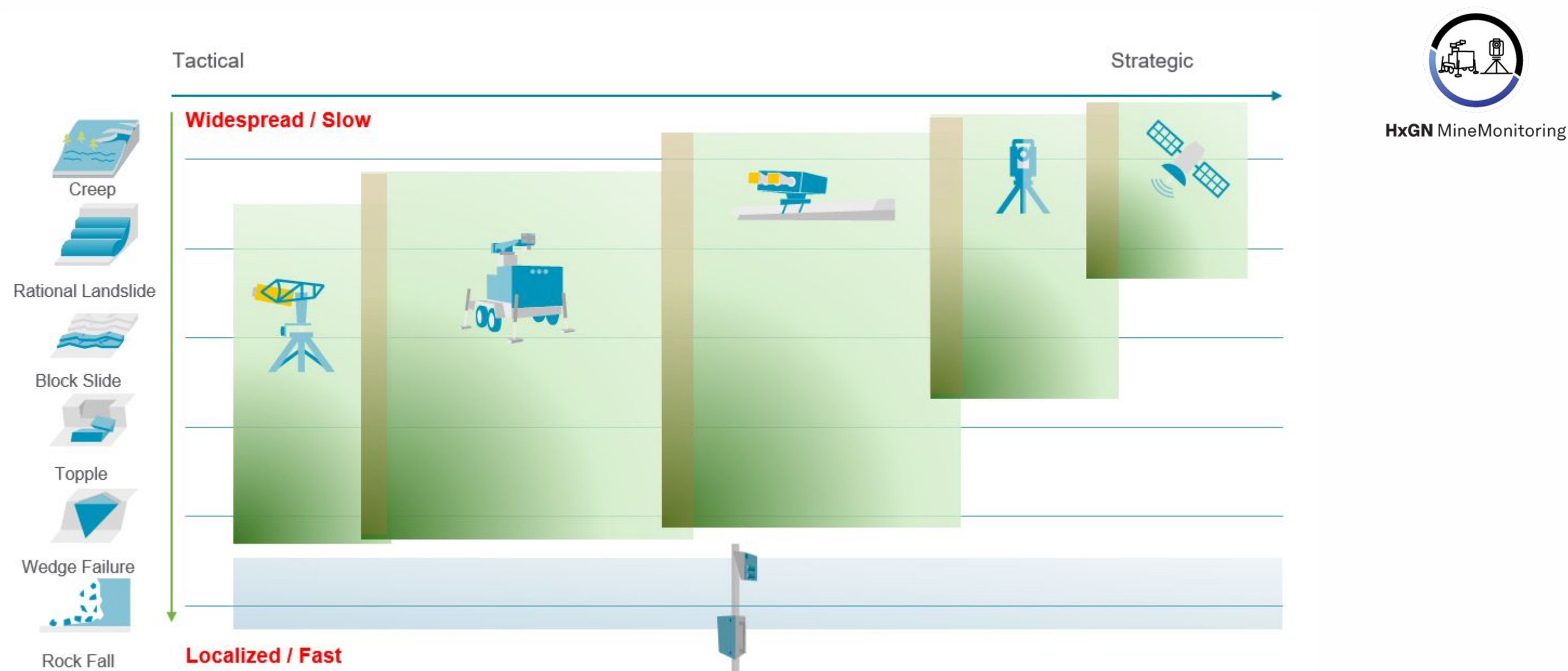


Interpretation: The graphs above show characteristics of a multiple step-path failure on intact rock bridges.
 Stage of deformation: Deformation of Rock bridges.
 Recommendation Typical alarm threshold should be set to detect the on-set of acceleration, thus when the rate of deformation is double the current rate, current velocity is between 3-4mm/h.
 Current Risk Rating: Yellow Area (Medium Risk: 10)
 TARP 1 (Orange Alarm): 30-50% of current rate TARP 2 (Red Alarm): 50-100% of the current rate
 Current alarm settings: Level 1: 7mm/h, Level 2: 9mm/h [No time-series alarms].

24/7 Monitoring



A perfect match for any monitoring scenario

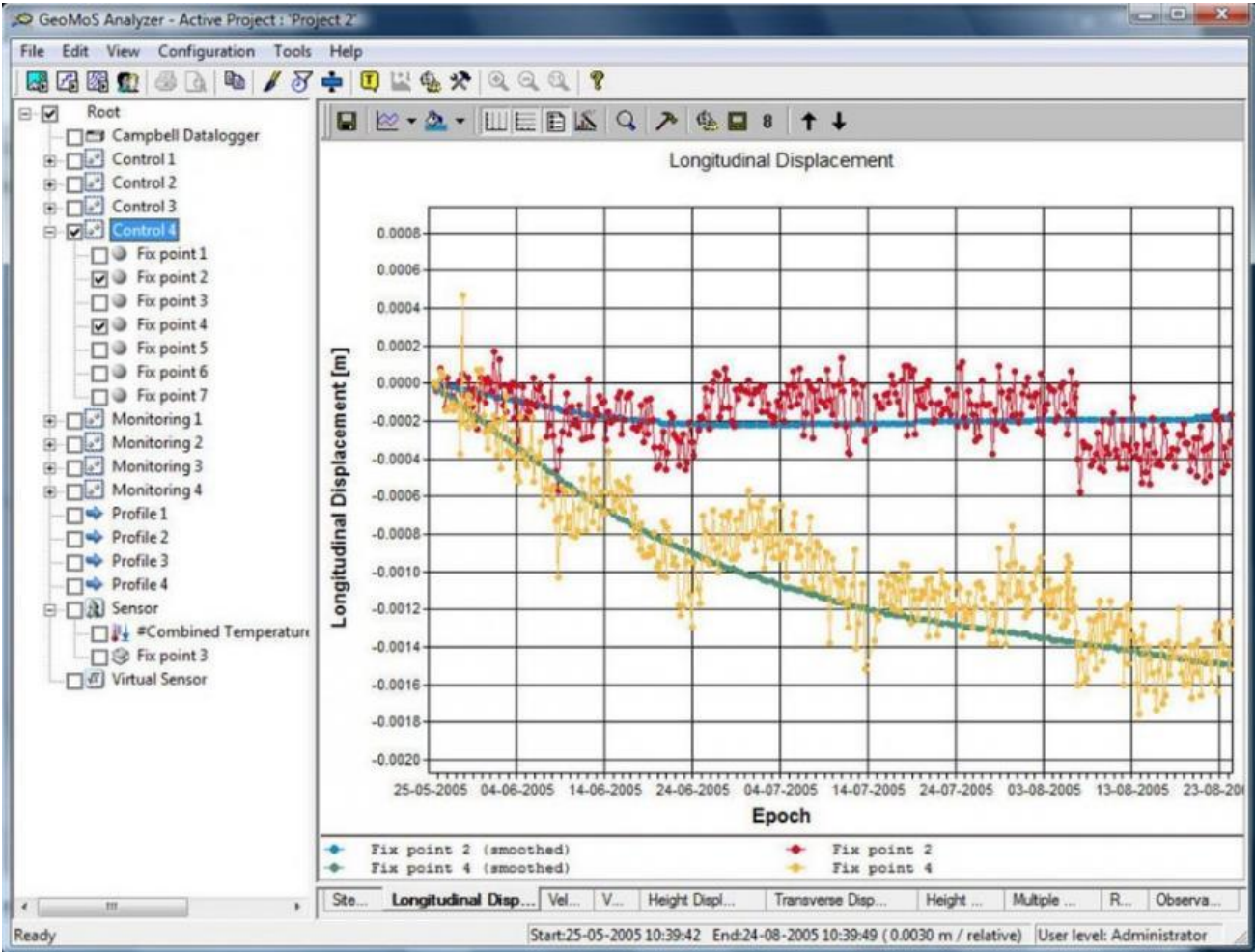




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APPLICATIONS

Background long-term



TM50

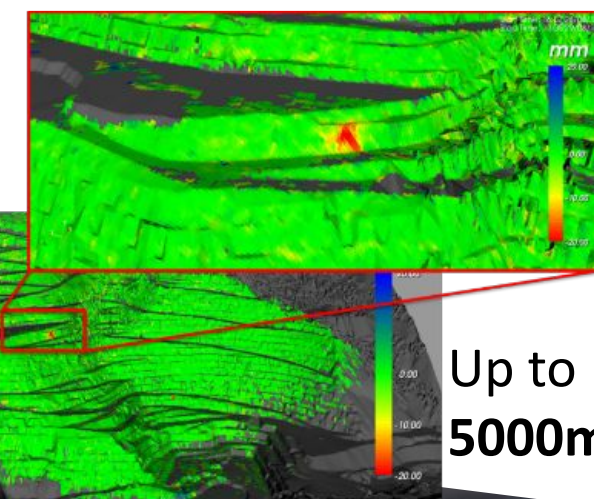
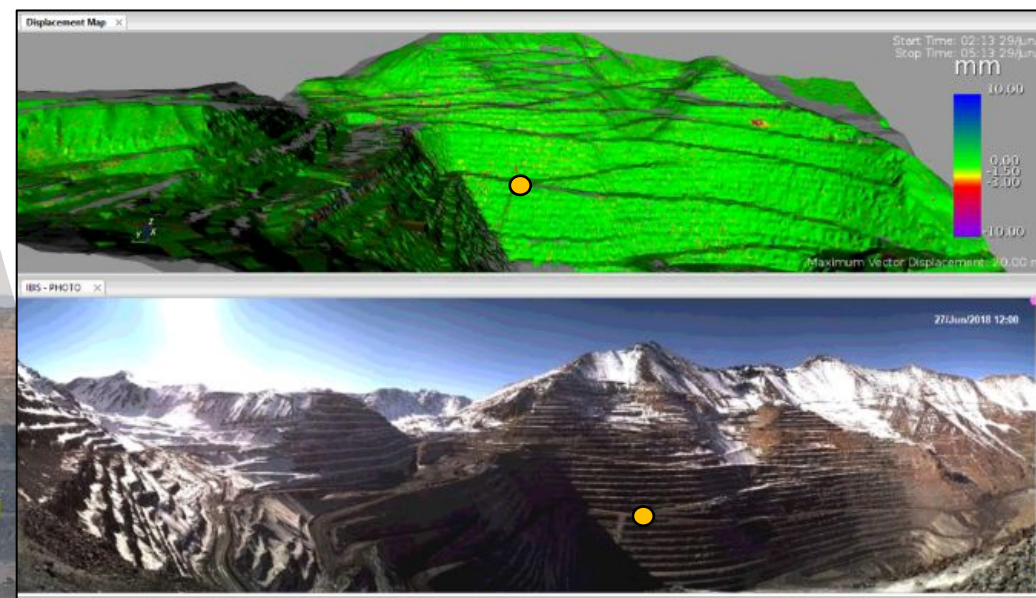


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Wide area long-range
Safety critical

Provide extra time to **evaluate** slope conditions and
develop solutions before displacement begins to
interfere with **mining operations**

Up to 5000m



Up to
5000m

IBIS-ArcSAR Performance

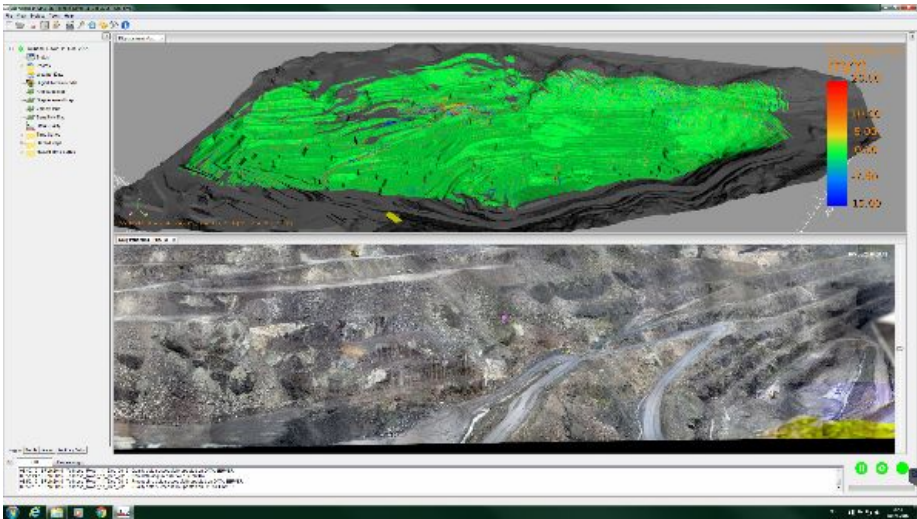
IBIS-FM Evo



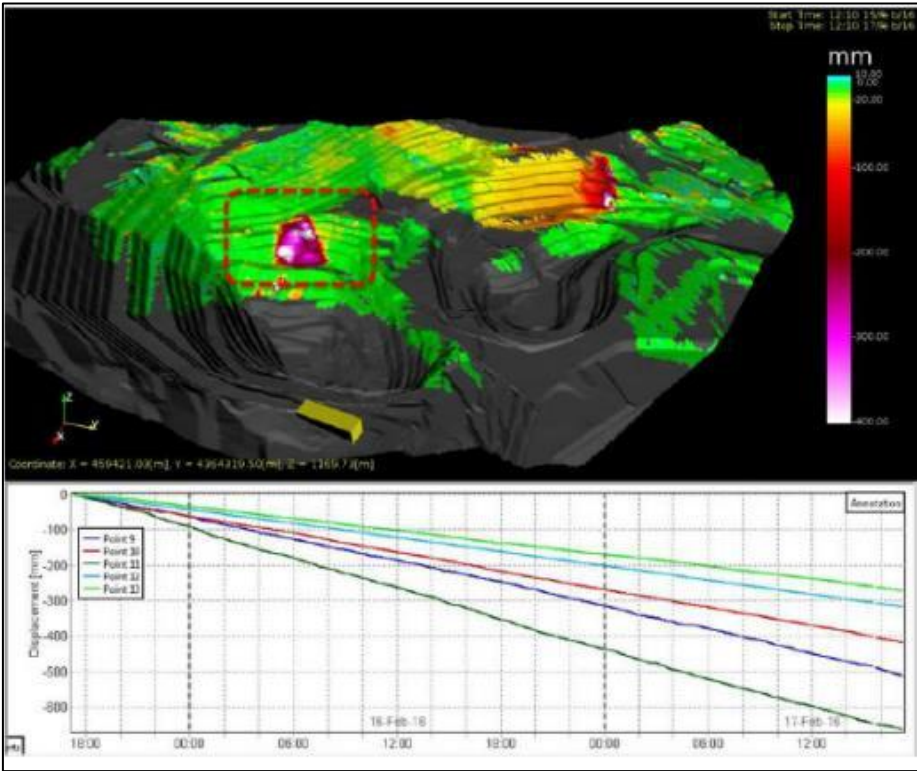
Flexible mid-range Safety Critical



IBIS-ArcSAR Lite



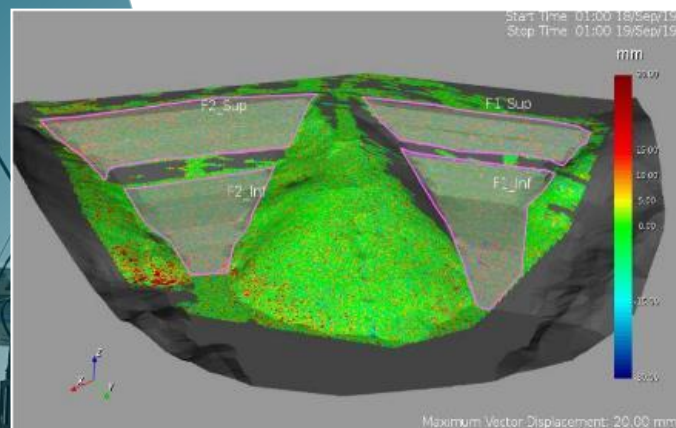
Mobile solutions with a range up to **2.5 km** for complex **structural, monitoring** and **extraction** scenarios.



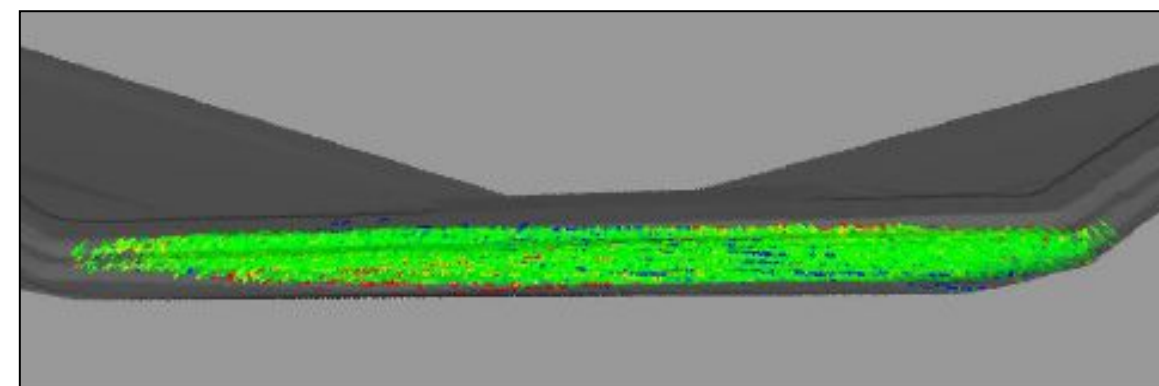


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Tailings Dam Monitoring



Full understanding of the **structural behavior** of dams and slopes within **short** (including real-time), **medium**, and **long** term

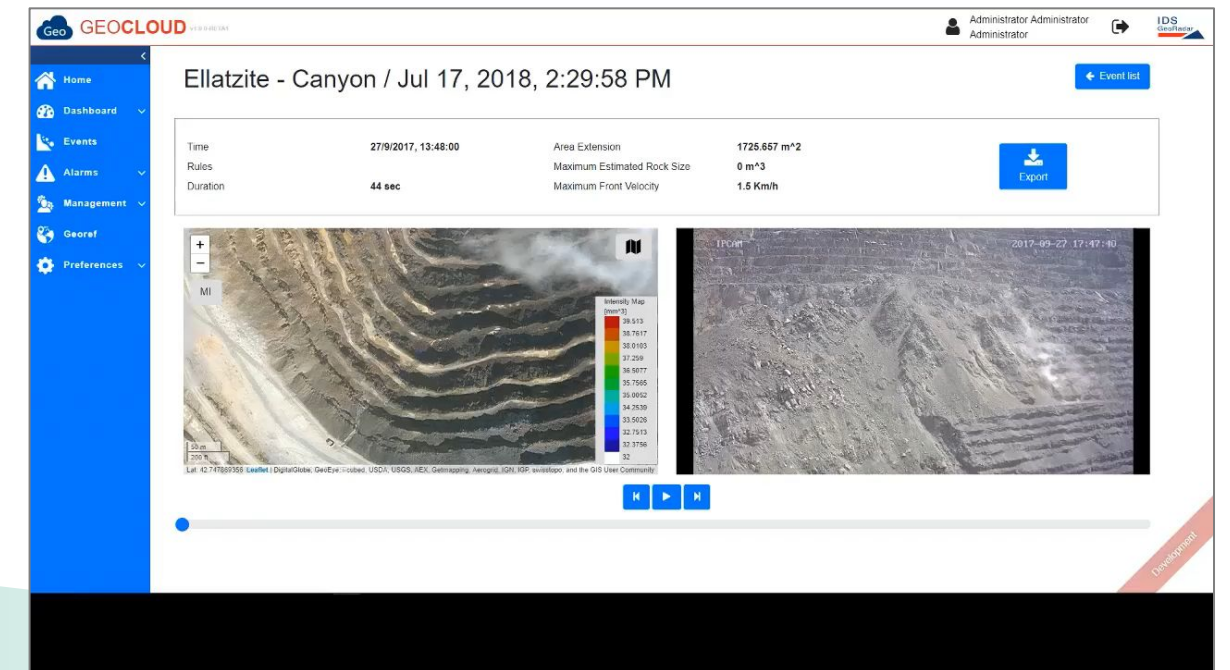


IBIS-FM Evo



Rockfall hazard mitigation

An innovative radar system able to improve real-time Risk Management and Risk Mitigation & Planning by **locating**, **tracking** and **notifying** on **rockfalls** and **mudflows** in near to **real-time**.



New multiple statistical tools consent a comprehensive back analysis for cost reduction in mitigation measures.



HxGN MineMonitoring

SERVICES AND SUPPORT



Mine Monitoring Services



**AFTER SALES
SUPPORT**



**24/7 ASSISTED MONITORING
GEOTECHNICAL SERVICES**



**ADVANCED
GEOTECHNICAL
SERVICES**





Thank You

Đakuje m

Đakuje

Maake

Děkuji

Asante

Shukria

Dhanyavadagalu

Manana

Dankon

Matondo

Terima Kasih

Taiku

Tack

Grazie

Mochchakkeram

Tingki

Gratias Tibi

Obrigado

ありがとう

Djere Dieuf

Eskerrik Ask

Najis Tuke

با تشکر از شما

Arigato

Gracias

Diolch i Chi

Chokrane

Biyan

Mauruuru

Kam Sah Hammida

ارکشی

Maake

Děkuji

Kiitos

Köszönöm

Vinaka

Dankscheen

감사합니다

Blagodaram

Ngiyabonga

Dziekuje

Juspaxar

நன்றி

Ua Tsaug Rau Koj

Bedankt

Dakujem

Grazas

धन्यवाद

Nirringrazzjak

Hvala

Welalin

Danke

Merci

Salamat

Go Raibh Maith Agat

භවභවභවභව

Kia Ora

Kop Khun Khap

Paldies

Gratias

Tibi

Obrigado

ありがとう

Djere Dieuf

Eskerrik Ask

Najis Tuke

با تشکر از شما