

EPC GROUPE  EPC-UK

# Technical Solutions

Designed by Field Engineers,  
for Field Engineers.

Enabling  
mineral  
sustainability

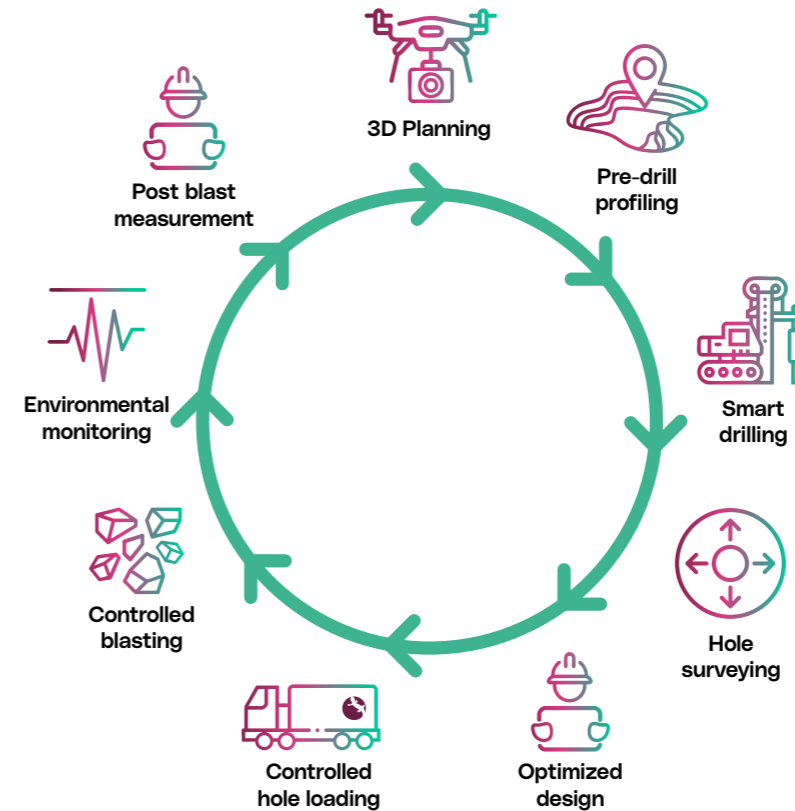
## Enabling Mineral Sustainability in your quarry



EPC METRICS Technical Solutions have been created by Field Engineers, for Field Engineers. A revolutionizing true journey of real time site implementation to deliver optimized results, powered by our own software team and driven by EPC Groupe experience.

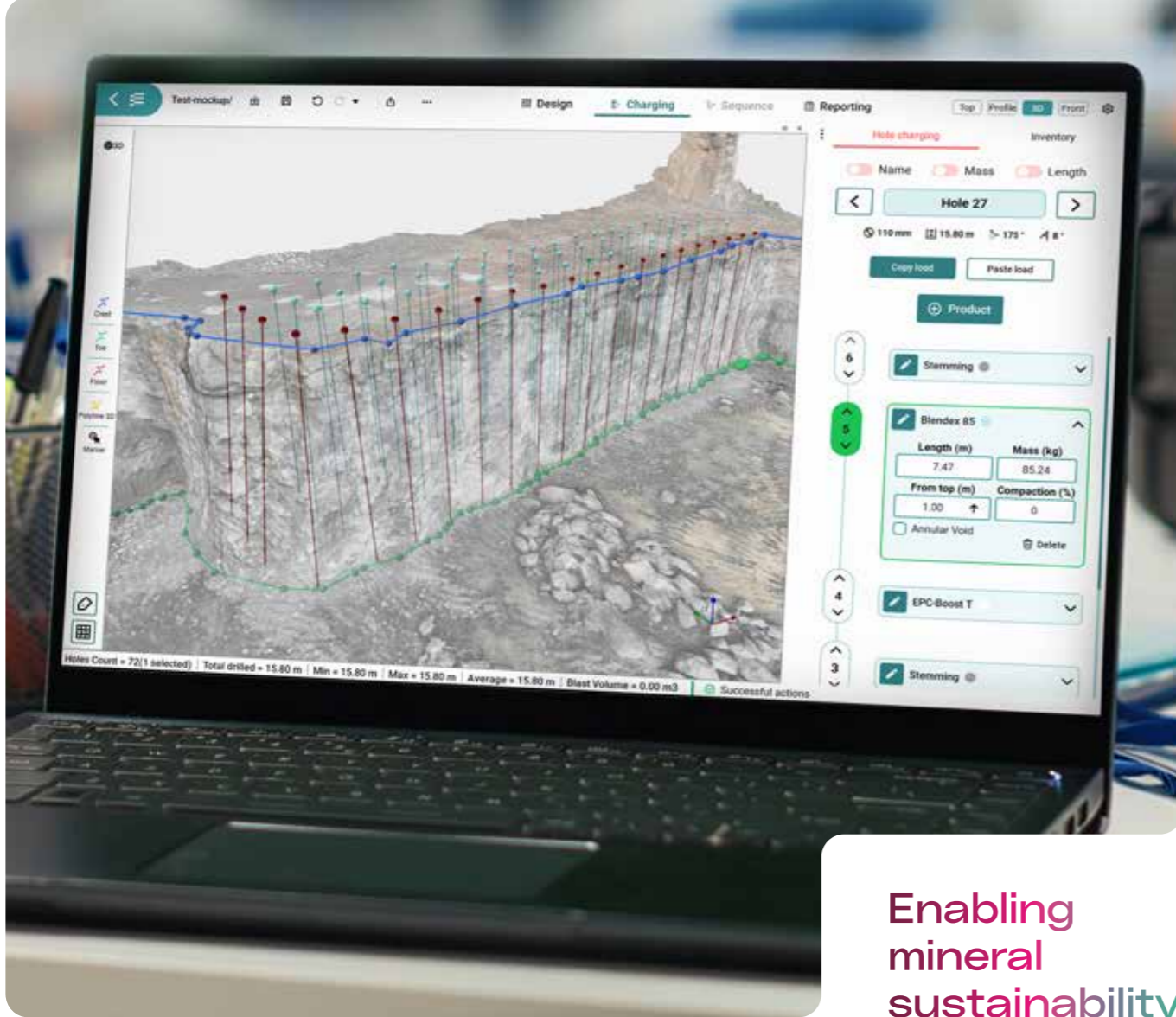


Our solutions provide a powerful suite of tools & expertise to support the design, simulation & optimization of blasting operations.

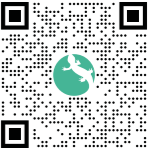


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- 3D Planning
- Pre-drill and Post-drill profiling
- Consistent energy distribution
- Optimized design

### Blast design software

EXPERTIR® optimizes mining operations with advanced services in drilling, loading, and firing sequences. Our drilling design features precise 3D model analysis from site surveys, adaptive drilling geometry, and burden control visualization.

Our firing sequence module includes designing delay sequences for complex ore shapes and simulating vibrations from sequences and charges. EXPERTIR® delivers innovative solutions for consistent energy distribution, enhanced performance and sustainability.

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## EXPERTAB™



- Digitalization of drilling report
- Remote communication with MEMU
- Controlled hole loading
- Real time GPS positioning

### On-bench blast design assistant

EXPERTAB™ digitizes drilling reports for easy integration into EXPLORE™ and EXPERTIR®. Our drilling Quality Control ensures accurate borehole measurements and identifies geological issues. For Loading Quality Control, EXPERTAB™ provides real-time loading data and remote communication with hole loading equipment.

Measurements from our POLAREX® probe can now directly be accessed in the EXPERTAB™ application. The EPC Groupe built probe measures borehole orientation and angle to enable the optimization of energy control and reduce flyrock risk. The POLAREX® probe, data is loaded seamlessly with EXPERTAB™ for accurate, real-time analysis, saving the need for multiple devices on the bench and as an integral part of our ecosystem.

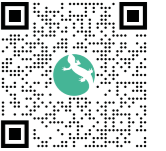
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## EXPLORE™



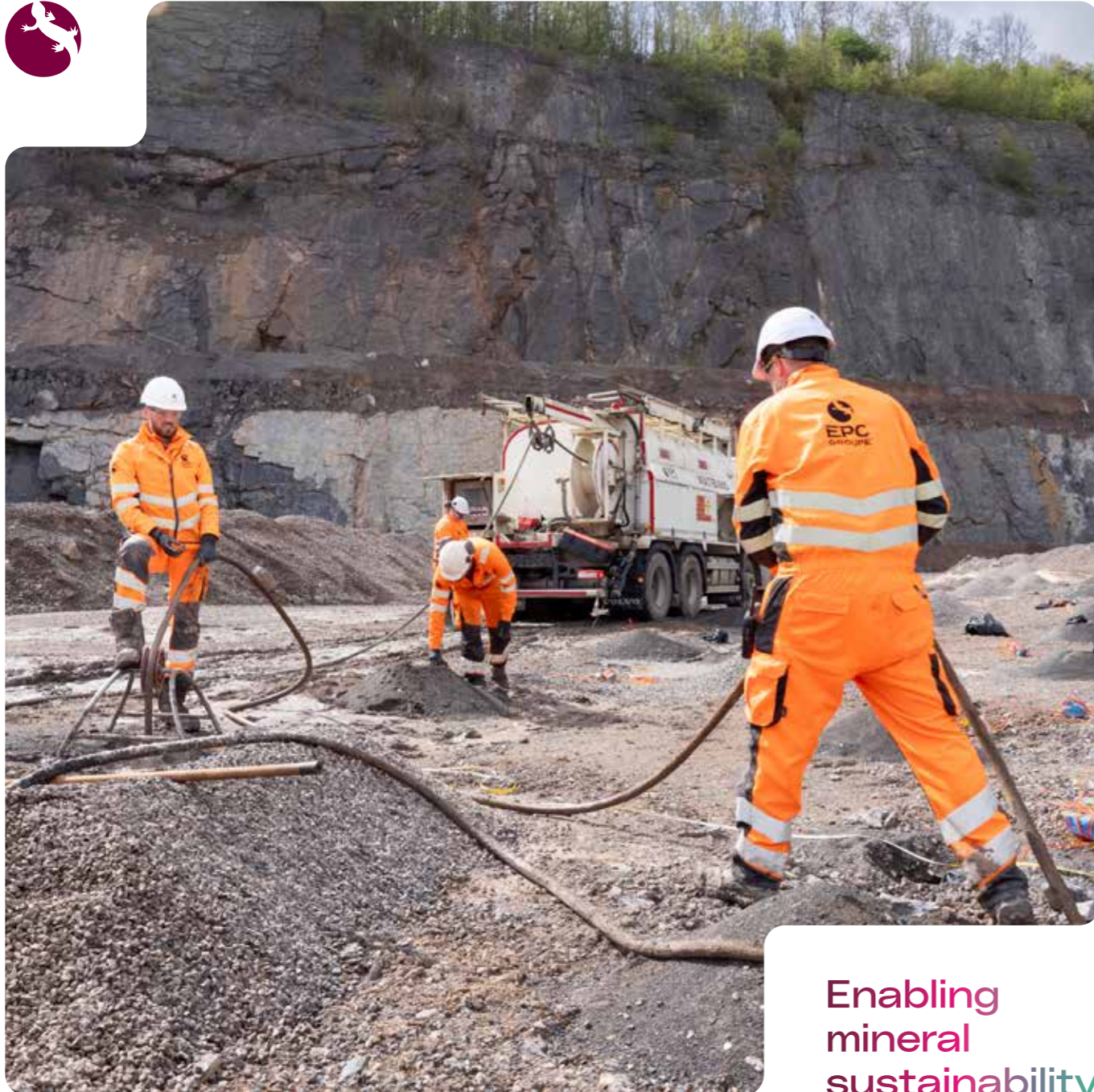
- Environmental monitoring
- Blast localization in the pit
- Post blast measurement
- Export various data and reports

### Streamlined data management & visualization

EXPLORE™ offers a secure database to store and share files across sites, projects, and blasts, including blast locations in the pit. It provides customized workflows tailored to your methods and easy access to your documents. With EXPLORE™, you can visualize a live dashboard of KPIs and statistics from multiple blasts, helping you learn from past data to optimize future blasts.

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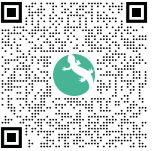


- Precision Data Capture
- Performance Tracked
- Connected Technology
- Targeted Results
- Expert Consultancy
- Next Generation Solutions

### Unlocking Value with Precision

EPC **ROG+** (Rock on Ground Plus), is EPC-UK's next iteration of accurate blasting servicing to improve the entire value chain from face-to-gate or mine-to-mill. Customers choose only the service elements they need to support equipment and tools already on site to streamline costs, operations and enable greener credentials.

**ROG+** involves measuring blast impact via a continual feedback loop, using site data gathered and engineer expertise to assess overall downstream activity and value. Information gained is fed back into the next blast design and adjustments are made to further optimize operations.



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# SMARTFRAG



- Advanced fragmentation analysis
- Optimized blast design
- Faster, data-driven decisions
- Improved efficiency & sustainability

## Fragmentation analysis & control

The **SMARTFRAG** tool makes it possible to measure the fragmentation curve of muck piles using drone images. It was developed by EPC Groupe using deep learning technologies dedicated to computer vision. This makes it possible to correctly identify complex objects, such as fines, which are difficult to detect by conventional image analysis techniques.

The **SMARTFRAG** tool is currently offered as part of our QA/QC solutions delivery as a key measuring tool for optimizing blasting results.

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# POLAREX®



- Reduced customer costs
- Design vs. actual results are improved
- Increased, continued accuracy
- EXPERTIR® integration
- Real-time reporting via App

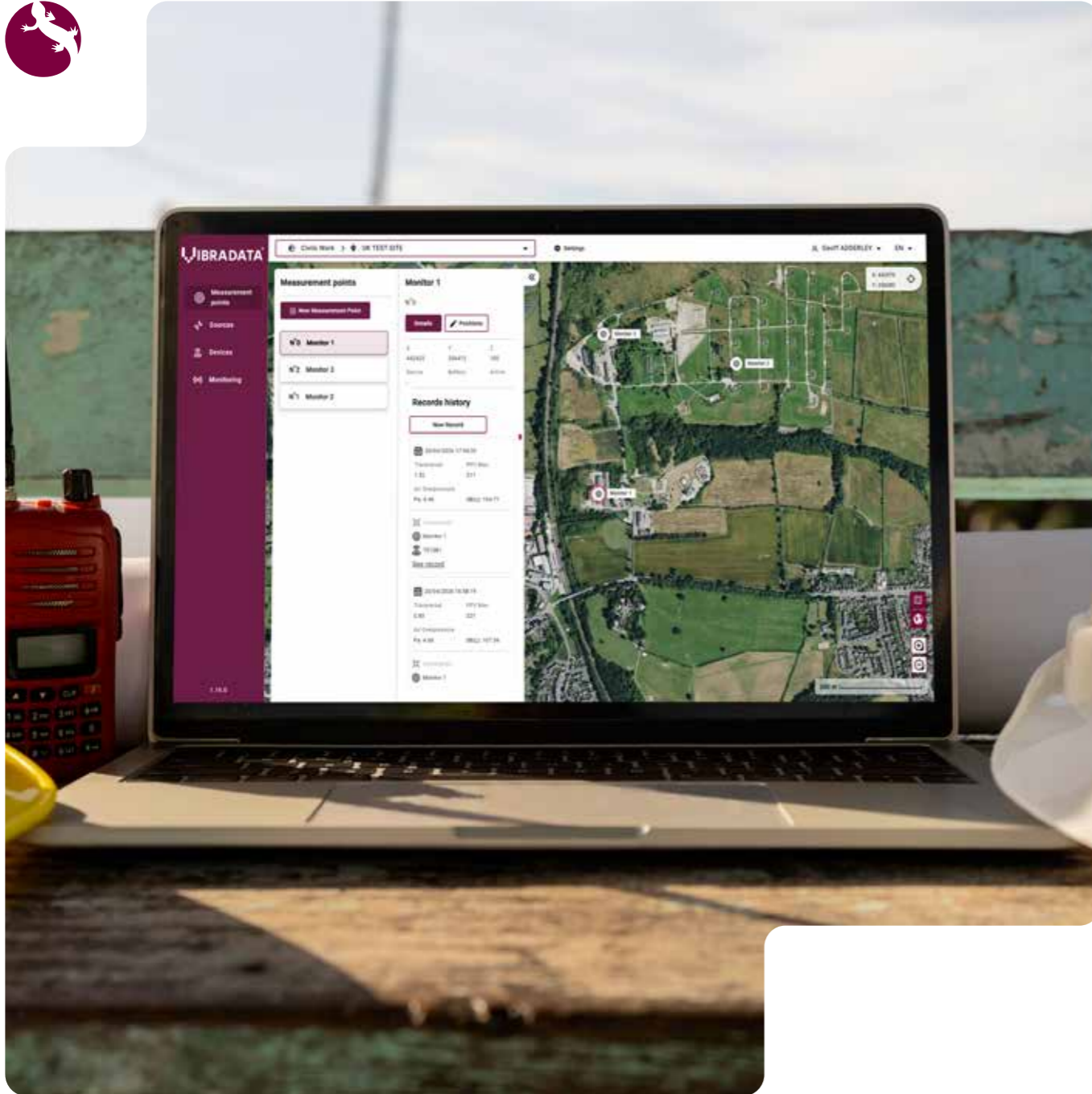
## Down-the-hole accuracy

The **POLAREX® OP** (open pit) probe resolves customers' down-the-hole measurement issues and has been built directly by EPC Groupe. This effective borehole deviation monitoring tool measures and maintains the orientation and angular velocity of blast holes, controls energy and manages flyrock issues as well as QA/QC hole constraints.

The EPC Groupe built probe can be supplied, serviced, calibrated and maintained in the UK using the engineering support of the EPC Metrics team. In addition, the android compatible **POLAREX®** app perfectly supports the probe's efficacy. It is easy to use and enables data to be transferred to EPC's **EXPERTIR®** software, or other blast design software package, on a phone or tablet.

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# VIBRADATA®



- Set alarm & trigger threshold
- Enables continuous monitoring
- Fixed measurement points
- Reports & analysis

## Online vibration monitoring platform

VIBRADATA® is an online platform dedicated to seismometer management. It allows data from fixed installed or mobile vibration sensors to be centralized and analyzed in order to verify regulatory compliance of operations. VIBRADATA® is part of a control and traceability approach, guaranteeing the safety of property and people while ensuring compliance with current standards.

VIBRADATA® allows you to view and manage all equipment deployed in the field, whether connected in real time or configured in standalone mode. The platform provides accurate tracking of their positions, operational statuses, and technical parameters directly from the map.

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# Vibration monitoring equipment

Our family of vibration measuring instruments is specially designed to use when the velocity is the magnitude to measure. Usually this type of equipment is used in construction work, mining, blasting, demolition or other jobs where vibrations cannot be completely avoided. To exclude any damage or risk, measurement and analysis of these vibrations are required. Other magnitudes like acceleration or pressure can also be measured.



## TELLUS

VIBRACORD TELLUS is a latest generation vibration meter manufactured by equipment specialist, VIBRAQUIPO, and managed, supplied and calibrated locally by your EPC Groupe team. It features a GPS function to provide the position of and synchronize all the precise timing analysis equipment used in a quarrying environment to enable users to remotely access and operate equipment.

- Remotely controlled
- 7" TFT screen touch panel
- Up to 14 channels
- Data transfer to USB disk
- Access data with any online device
- WiFi connection
- E-mail reports of records & alarms
- FFT frequency analysis
- Wave and standard on graphic screen
- Dedicated analysis software



## GAIA

VIBRACORD GAIA is an advanced ground borne blasting vibration monitoring solution designed for use in challenging quarrying conditions. Contained within a strong aluminium case and manufactured by equipment specialist, Vibraqiipo. GAIA features a hi-contrast illuminated LCD screen, designed to be effective under all light conditions. It is user friendly and recommended for portable vibration measurement applications.

- Strong aluminium case
- High contrast illuminated LCD screen
- Designed blast monitoring
- 3-Axis block of geophones (optional)
- Microphone for air-pressure (optional)
- Very easy to use
- Dedicated analysis software



## HERMES

VIBRACORD HERMES is the first data logger designed for mining applications, with different working modes to make the device configuration easier. The unit is portable and resistant, for open pit and underground operations.

- Data logger mode
- Near field vibration
- Under water pressure
- Velocity of detonation (VOD)
- Up to 4 Channels
- 1 nanosecond sampling time
- 17 GB data storage
- Dedicated analysis software

Contact us for a quote [➔](#)



# Stockpile surveys

EPC-UK's Stockpile Service brings the EPC Metrics team's drone technology and mapping capabilities together to create full topographical stockpile surveys of customers' sites.

- ➔ Uses the latest drone & GPS technologies
- ➔ Utilises a Smart Drone Surveying Software platform
- ➔ Aligns with EPC-UK's ROG+ Service
- ➔ Cut and fill mineral deposit calculations
- ➔ Excavated volumes
- ➔ Face angle assessments
- ➔ Floor height assessments
- ➔ Bund height checks & haul road gradient assessments
- ➔ Ability to compare historic datasets & volumes over time

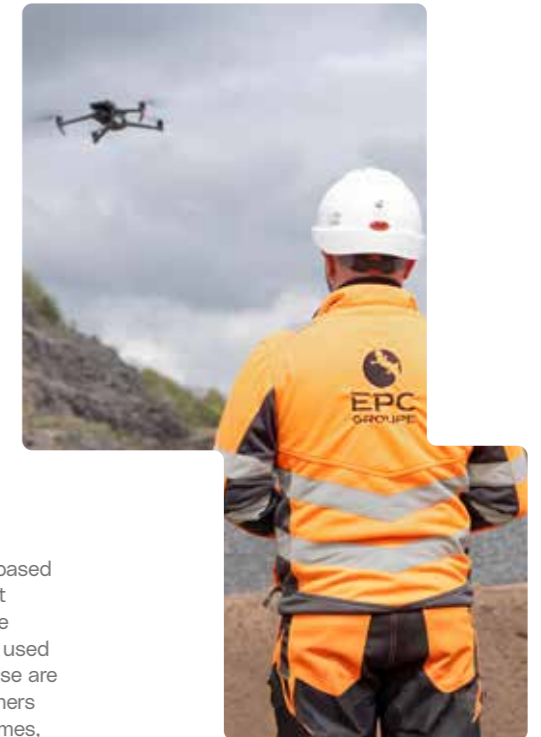
We take individual measurements of stock volumes to generate models and convert the key data into a stockpile survey. This digitally produced, highly accurate stock inventory data can be converted into a monthly, quarterly or ad hoc report to support customers' financial administration.

## Safety

As well as being faster and more precise, EPC Metrics' advanced, digital Stockpile Service is significantly safer than manual stockpiling methods, as it removes the need for operatives to physically take measurements on sites where mobile plant machinery is in operation.

## Technology

The point density measurements are achieved by programming a ground based RTK GNSS enabled drone with Smart Drone Surveying Software. The drone takes measurements which are then used to create complex topographies. These are calculated and interpreted so customers can understand at a glance the volumes, tonnages and monetary value for any project over time.





# Initiation systems



## ROBIS

EPC ROBIS (Remote Operated Blast Initiation System) is a remote firing Electric detonator initiator that provides users with an effective range of over 1,000 metres. Developed in partnership with specialist innovator, Technical Concepts Ltd, EPC ROBIS enables safe, remote, line-of-sight, electric or non-electric (ROBIS-E) blast initiation without long lead wires.

- Blast initiation from up to over 1000m line of site (typical range over level ground 800m)
- Offers greater firing location flexibility
- Removes expense of long lead wires
- Remote, safe, line-of-sight, electric or non-electric blast initiation



## START

EPC Start is a Shocktube initiating system that provides users with an effective system for the initiation of shock tube detonators. Developed in partnership with specialist innovator, Technical Concepts Ltd, EPC Start enables efficient, robust & safe initiation of Shocktube lines.

- Discharge Energy – 220nF 2.4kV, 0.58
- Size / weight – 86 x 140 x 38mm / 355g
- Battery Size / Voltage / Life – 2 x AA / 3V  
- Over 1000 shots per set of batteries
- Up to 100 fire cycles per electrode
- Environmental / Op Temp – IP67 / -25 to 550C
- Designed and Tested to EN: 13763-27:2004
- PELI storage case



# Consultancy



Our in-house expertise and knowledge can provide you with industry-leading advice, management and technical knowledge, regardless of the size or application of your project.

Over the years EPC-UK personnel have gained extensive experience in many fields relating to the drilling, blasting and mining industry and the correct application of explosives. This pool of knowledge is now available to customers for projects ranging from the establishment of operating procedures and environmental compliance to specific problem solving.

We are proud of the in-house expertise that provides our customers with only the highest level of technical knowledge. Our engineers are renowned within the industry, actively participating and shaping the future of explosives.

The areas within which we can offer expert advice and management are:

- Environmental impact assessments
- Monitoring of vibration
- Regression line modelling
- Blast design
- Blast performance auditing
- Product development and testing
- Safety audits



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## Industry leading training

EPC-UK is a leading UK provider of commercial explosives training, delivering courses that cover everything from blast design and environmental control to on-site safety.

Designed for the extractives industry, our programmes support professionals across diverse sectors, helping to attract new talent while advancing skills and career development within the industry.

### Continuing Professional Development

These industry leading courses have been specifically designed for the extractives industry, to attract new talent and provide further professional development opportunities within the sector.

### Market leadership & expertise








EPC-UK has been providing market leading, modular training courses to industry professionals for many years. Utilizing the latest explosives technology, combined with one of the strongest skill sets in the sector, we offer some of the most highly regarded training and assessment services in the industry.

### Contact

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learning@epc-groupe.co.uk  
[epc-groupe.co.uk/training-courses](https://epc-groupe.co.uk/training-courses)

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### Courses include:

-  **Diploma in Surface Mining Explosives Engineering**
-  **Explosives Awareness**
-  **Shotfiring**
-  **Explosive Supervisor**
-  **SPA Quarry Passport**
-  **Underground Blasting**
-  **ADR**





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