



# End-to-End Solutions

Enabling successful and cost-effective operations  
across the entire mining value chain



A LEADING GLOBAL MINING-TECH COMPANY

[indexlimited.com](http://indexlimited.com)

# Are you...

Using unreliable data?

Waiting forever for your data to arrive?

Drilling more or less than you actually need to?

Wasting time during sampling and logging?

**.... How do you know?**

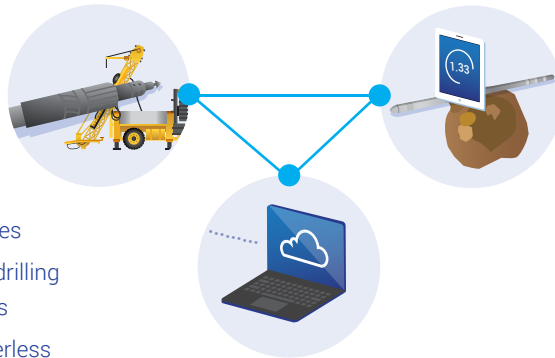
The IMDEX logo is displayed in a bold, white, sans-serif font. The 'X' is stylized with a blue diagonal line through it. The background of the entire page is a photograph of a man in a white hard hat with the IMDEX logo, safety glasses, and a high-visibility yellow and black jacket, holding a handheld device. He is standing in front of a blurred background of industrial structures and a clear sky.

# IMDEX

# Our technologies enable **safe and cost-effective** operations

## Drilling faster and smarter

- Drilling productivity and rig alignment technologies
- Automated and remote drilling fluid testing technologies
- Data collection and paperless reporting software

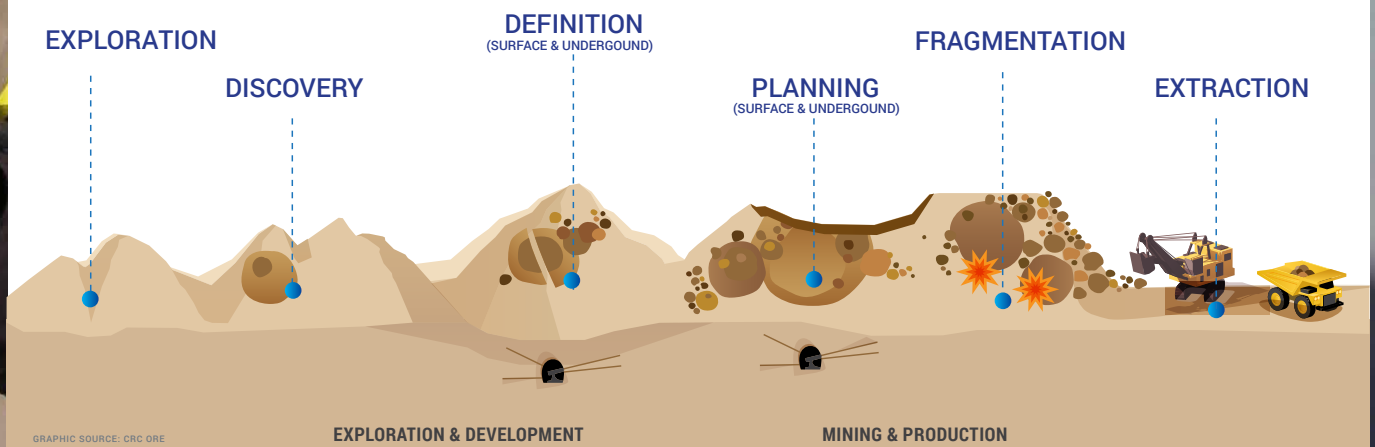


## Accurate subsurface data

- Downhole survey sensors
- Core orientation and gamma logging technologies
- In-field sampling and analysis technologies

## Receiving real-time information

- Secure cloud-based services
- Real-time subsurface visualisation
- Interpretive software for geological data





# Purpose and vision

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We are a leading Mining-Tech Company, which enables successful and cost-effective operations from exploration to extraction.

At IMDEX we develop cloud-connected sensors and drilling optimisation technologies to improve the process of identifying and extracting mineral resources for drilling contractors and resource companies globally.

Our unique end-to-end solutions for the mining value chain integrate our leading AMC and REFLEX brands. Together they enable clients to drill faster and smarter, and have access to accurate real-time data for instant decision making.

Our vision is to be the leading provider of real-time subsurface intelligence solutions to the global minerals industry.

**“It’s about drilling faster and smarter and knowing your rocks in real-time.”**

DR MICHELLE CAREY, GENERAL MANAGER - IMDEX PRODUCT DEVELOPMENT

# Leading brands



## AMC

redefines the way drilling fluids, equipment, technologies and software are used to optimise drilling programs. It is renowned for maximising productivity while enhancing safety and sustainability. AMC has a strong presence within the global minerals, horizontal directional drilling, waterwell and civil construction sectors.



## REFLEX

is renowned for its real-time subsurface intelligence solutions for the global minerals industry. REFLEX technologies include downhole instrumentation, data management and analytical software for geological modelling. These market leading technologies – recognised for their ease of use and accuracy – are complemented by unrivalled expertise in geo-scientific data analysis and interpretation.



# Why one solution provider?

When you work with IMDEX you have all the benefits of working with one trusted technology provider for a complete solution.

Benefit from operational efficiencies by utilising one company offering the integration of award-winning technology to digitise key workflow processes, supported by unrivalled expertise.



3rd party software



## FLUID OPTIMISATION



Drilling fluids



Solids removal (SRU™)

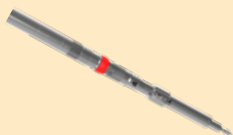


Fluid management with MUD AID™ or Drilling Fluid Specialist



IMDEX  
HUB

## DRILLING TECHNOLOGIES



COREVIBE™



XTRACTA™



MAGHAMMER™



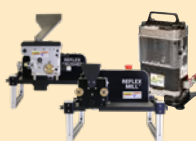
AMC BOS™

## STRUCTURAL



IQ-LOGGER™

## IN-FIELD GEOANALYSIS



Sample preparation



Analysis



## Our strengths

Market leading brands and expertise

One trusted technology provider

Integrated range of solutions for exploration, development and mining

Award-winning cloud based software  
IMDEXHUB-IQ™

World-class R&D facilities

Global presence with local on-site support

Satellite technology



IMDEX  
HUB-IQ™

### EDUCATION & TRAINING



Online learning

### REPORTING



Daily drill report

### SENSORS



Survey



Geophysics



Rig alignment



Core orientation

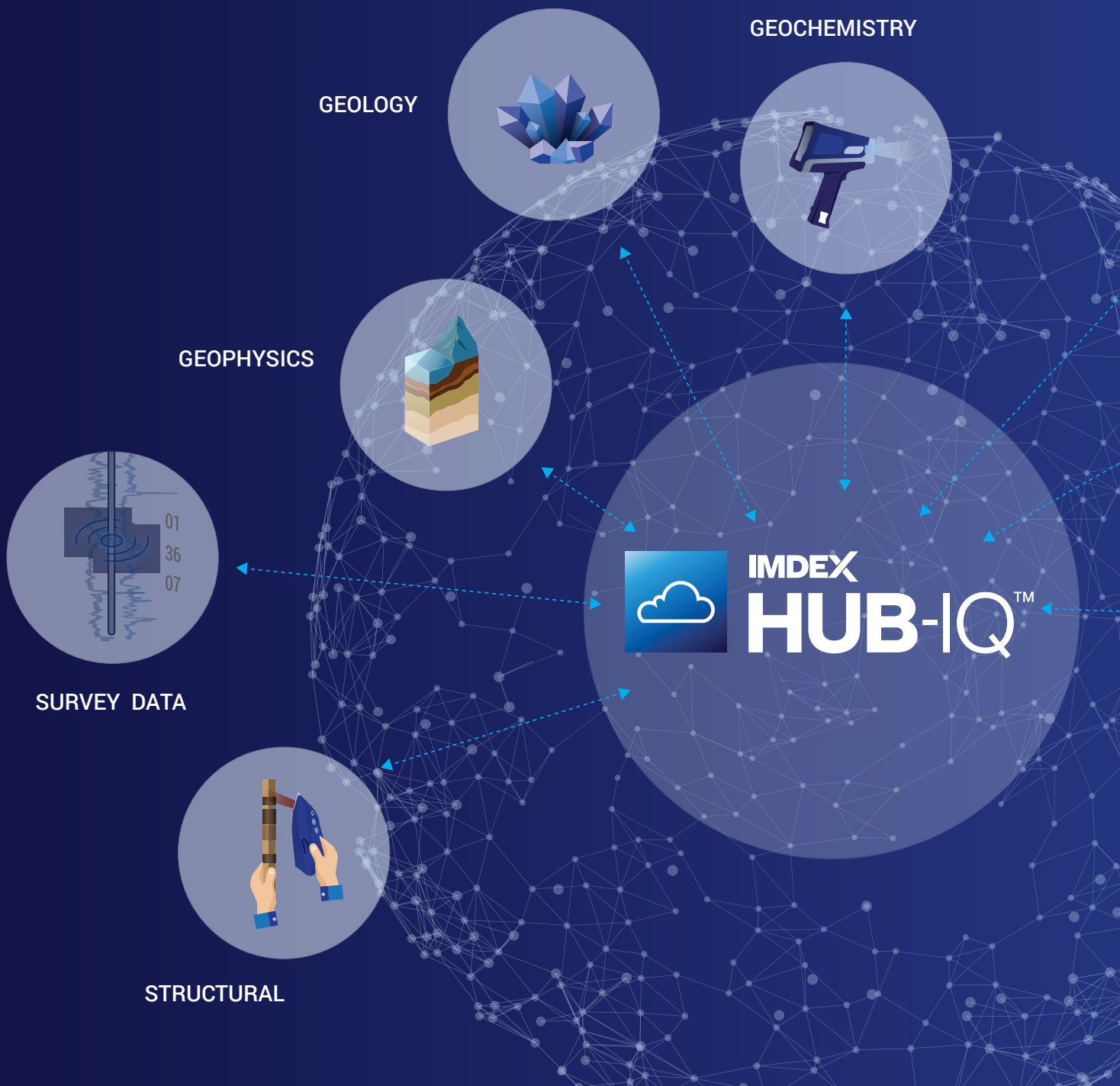
### DIRECTIONAL DRILLING



Downhole motors

# Make decisions faster with real-time data

IMDEXHUB-IQ™ is a secure, cloud-based portal for validating field data seamlessly transmitted from the drill rig and integrated with leading industry software.



## Benefits

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### Make confident decisions in the moment

With access to real-time data, decisions can be made while operations are live. Not next week after the data has been adjusted and certainly not after the drill rig has finished and left the site.

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### See the bigger picture

Transparency across multiple streams of data, associated with a single drill hole or an entire operation allows managers to monitor activity and ensure quality decisions in the field, wherever they are.

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### Reliable information, not just data

The rigorous data validation and built-in QA/QC at the time of data collection, ensures that only data that can be transformed into valid, actionable information is transferred.

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### Seamless integration

We are partnering with leading industry software partners, such as Seequent, acQuire and MICROMINE, enabling the secure sharing of data between IMDEXHUB-IQ™ and our partners.

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### Simple and secure chain of custody

With no manual intervention or paperwork required, errors and inefficiencies in the workflow are reduced and decisions are made on verifiable data.

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### Robust security

IMDEX is a globally recognised cloud service provider, our team of IT professionals monitor information security. IMDEXHUB-IQ™ is ISO27001 certified and practices are aligned with ISO27001.





# Structural Geology

Make decisions faster, with real-time data

Are you confident the structural data you are relying on for key business decisions is accurate and reliable? Have you ever had to wait days, or even weeks for results from the field before making decisions? Worse still, have you had to make a decision based on data you didn't trust?

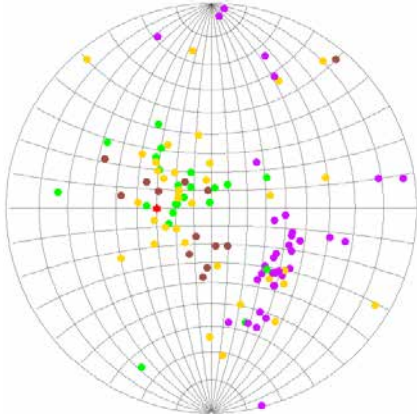
IMDEX has developed the end-to-end Structural Geology solution so resource companies can benefit from real-time, secure access to verified structural data directly from the field, improving operational efficiencies and reducing risk from manual intervention.

## Seamlessly collect **accurate and reliable** field data

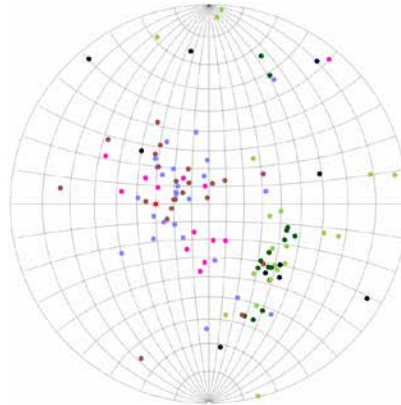


# Rapid data capture, visualisation and analysis

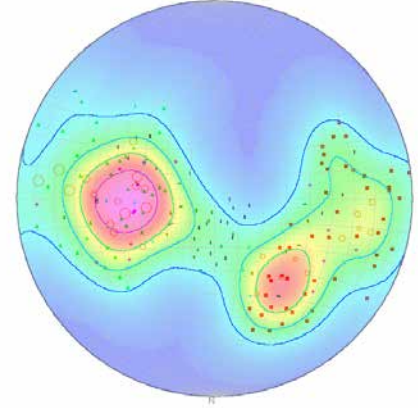
FROM COLLECTION



... TO VALIDATION



.. TO ANALYSIS



REFLEX IQ-LOGGER™



“The REFLEX IQ-LOGGER™ immediately became an integral part of our daily oriented core analysis and QA/QC procedures due to its ease of use, precision, and rapid visual feedback via dynamic stereonet analysis. It allowed us to collect literally 10x the structural data over traditional measurement systems and at a much higher quality. In my opinion, it is an essential tool for any drill based structural study.”

- TERRALOGIC EXPLORATION, CHRIS GALLAGHER, MANAGER EXPLORATION TECHNOLOGY

## Benefits



**INSTANT DECISION  
MAKING WITH ACCURATE  
REAL-TIME DATA**



**SAVE TIME WITH UP TO  
10X FASTER COLLECTION  
OF STRUCTURAL DATA**



**CONFIDENCE IN THE  
QUALITY OF YOUR DATA  
THROUGH IN BUILT QA/QC**



**VISUALIZATION AND  
ANALYSIS IN REAL-TIME**

*Testimonial submitted by Chris Gallagher  
Exploration Technology Manager, TerraLogic*



# Downhole Navigation

Utilise quality real-time data to hit that target

Hitting drill targets whilst maintaining productivity is a challenge in the industry. Having access to quality survey data in real time is critical to meeting this challenge. Without it you run the risk of not knowing where the hole is, or worse missing a target completely and wasting the cost of drilling the hole.

Accurate and reliable data gives you the confidence to make informed decision on drill hole progress against the plan in real-time. Integration of IMDEXHUB-IQ™ with Seequent's Central software means you now have real-time 3D visualisation of the drillhole.

## Plan for success



### IMDEXHUB-IQ™

- ✓ Create your drillhole, enter start and end coordinates
- ✓ Push to drillers



### REFLEX EZ-NAV™

- ✓ Design your drillhole
- ✓ Optimise drilling time

## Collect quality, data in real-time



### REFLEX TN14 GYROCOMPASS™

- ✓ QA'd rig alignment



### REFLEX GYRO SPRINT-IQ™

- ✓ 2x more accurate than competitor gyros
- ✓ In-built QA



### REFLEX EZ-TRAC™

- ✓ Magnetic survey
- ✓ In-built QA

## Amend on the fly



### REFLEX EZ-NAV™

- ✓ Run survey data against the design
- ✓ Measure how close you got to the bullseye



### REFLEX DOWNHOLE MOTORS™

- ✓ Easily change direction

## Analyse data in real-time



### IMDEXHUB-IQ™

- ✓ Approve dataset from anywhere and at any time.
- ✓ Collect and verify your data in one, secure place



Advanced data analytics and interpretation



### Seequent Central

Real-time 3D data visualisation

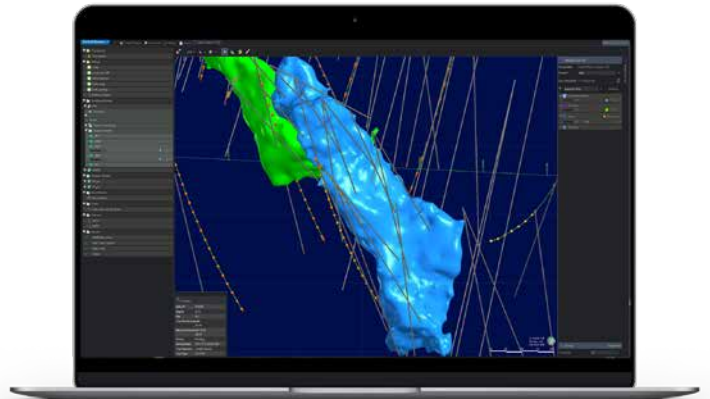
### 3rd party software

### Your database

# Real-time **3D visualisation** for your drillhole data

Thanks to the integration of the IMDEXHUB-IQ™ with Seequent's Central solution, you can now visualise and analyse your drillhole data alongside your 3D model in a seamless and integrated way.

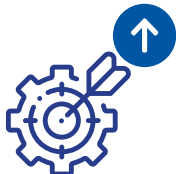
Track progress of drilling by comparing survey data from the field with the planned hole in 3D. With the integration created at the project level in Central, anyone on the project team can easily look at the most recent data to make decisions while drilling is underway.



## Benefits



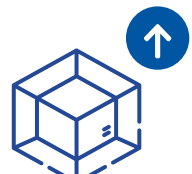
**INSTANT DECISION  
MAKING WITH ACCURATE  
REAL-TIME DATA**



**PROVEN TECHNOLOGY  
THAT IS RELIABLE AND  
ACCURATE FROM A  
BRAND YOU CAN TRUST**



**NO ON-SITE TECHNICIAN  
REQUIRED WITH EASY TO  
USE DRILLER-OPERABLE  
TOOLS**



**VISUALISATION AND  
ANALYSIS IN REAL-TIME**





# Drilling Optimisation

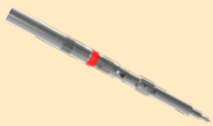
Ensure execution of drilling programs to specification, on time, within budget and safely.

As the cost of drilling increases, the need to improve productivity is paramount. Additional costs caused by higher operational standards, environmental restrictions and increased hole depths will continue. As specialists in Drilling Optimisation, IMDEX's vision is to ensure the execution of drilling programs to specification, on time, within budget and safely.

Our solution assists clients to:

- Hit targets accurately
- Drill as fast as the ground will allow
- Reduce down-time
- Be safe and environmentally responsible
- Deliver a cost effective quality drilling program and have the data to back it up.

## DRILLING TECHNOLOGIES



**COREVIBE™**



**XTRACTA™**



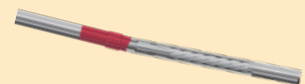
**MAGHAMMER™**



**AMC BOS™**



## DIRECTIONAL DRILLING

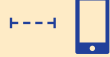


**Downhole motors**

## FLUID OPTIMISATION



**Solids Removal**



**Fluid management with MUD AID™ or Drilling Fluid Specialist**

## DRILLING FLUIDS



**Drilling fluids**

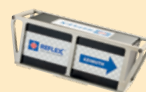
## SENSORS



**Survey**



**Geophysics**



**Rig alignment**



**Core orientation**

# New technologies

## IMDEX COREVIBE™

### Energy pulse assisted drilling

Conventional wireline coring has been transformed. High frequency energy pulse assisted drilling (EPAD) enables the IMDEX COREVIBE™ to deliver a 30%\* productivity gain, due to an increased Rate of Penetration (ROP) whilst retaining good bit life, core quality and keeping the hole on target.



## IMDEX XTRACTA™

### Retractable core barrel

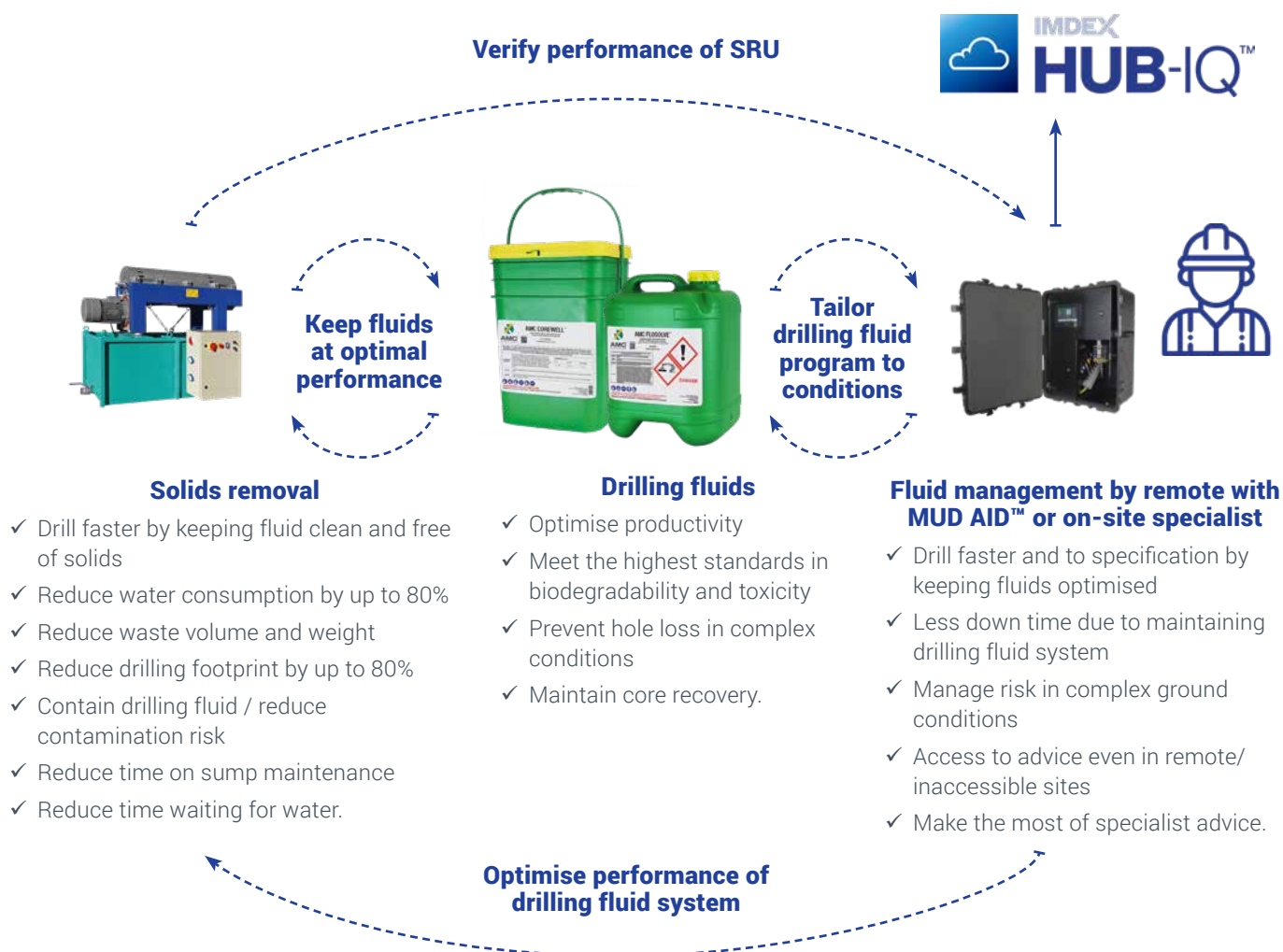
Pulling rods is one of the most laborious, time-consuming and risky parts of diamond drilling. IMDEX XTRACTA™ allows the driller to inspect and/or change the bit/reamer each time the core is retrieved, optimising bit usage and minimising rod pulls.

With no need to pull the rods to change bits, the hole is always cased and maintaining hole integrity.

*\*Validated by SGS, a world leading inspection, verification, testing and certification company.*



# Make the most of your drilling fluid



## Why care about mud?

DRILLING FLUIDS HAVE AN IMPACT ON

**30-60%**  
OF ALL DRILLING OPERATIONS

DRILLING FLUIDS ACCOUNT FOR

**5-15%**  
OF DRILLING COSTS

## AMC BOS™

### A proactive solution for fluid loss and borehole instability

AMC's patent pending Borehole Optimisation System (AMC BOS™) anticipates fluid loss, lost circulation and unstable zones, even in the most difficult conditions – making operations more predictable and decreasing the risk of hole loss.

This solution comprises of the AMC BOS UNIT™ an in-hole lubricating and casing while drilling tool, and AMC BOS FIX™ a rapid fill lubricating grout.





# Mining technology

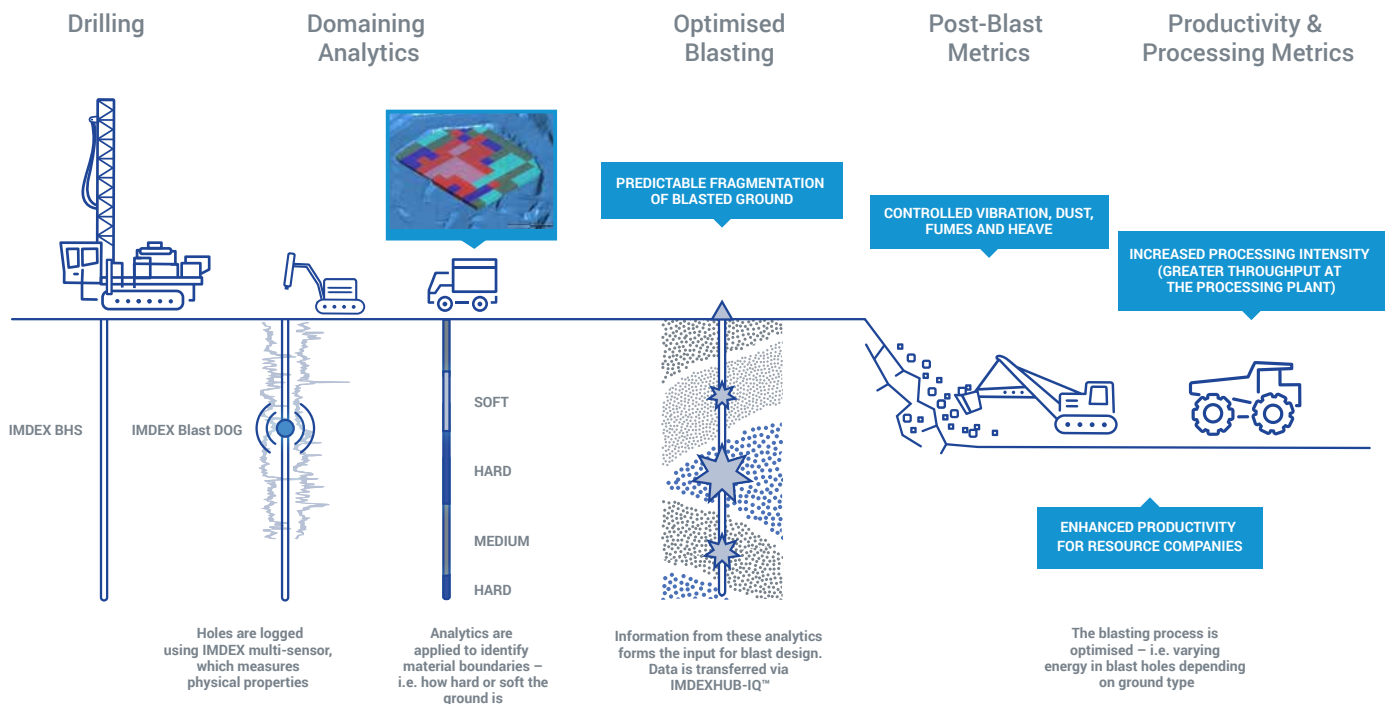
## Optimised blasting and material tracking

IMDEX is currently developing the IMDEX BLAST DOG™, an autonomous system for logging material characteristics of blast holes, which allows automated spatial domaining of physical properties and fracturing.

The data from IMDEX BLAST DOG™ is designed to give clients more predictable fragmentation with their blasting leading to increased processing plant throughput; and better productivity. Additional outcomes include better control of vibration, dust, fumes and heave.

Knowing that holes have been drilled to plan is a critical component to the blasting process. IMDEX has also developed a drilling fluid and delivery method for Drill and Blast.

IMDEX BORE HOLE STABILISER™ provides a preventative drilling medium, which reduces hole degradation, cave-ins and exposure to fracturing for explosive material. In trials it has provided consistent gauge holes, minimised exposure to fractures, reduced fumes and ensured more efficient blasting.



## Benefits



**MAXIMISE REVENUE BY INCREASING MINE TO MILL EFFICIENCY**



**PREDICTABLE FRAGMENTATION OF BLASTED GROUND**



**CONTROL VIBRATION, DUST, FUMES AND HEAVE**



**REDUCE REDRILLS**



# In-field Geoanalysis

Providing quality geochemical data,  
where and when you need it

Do you find yourself making decisions without having all the necessary data available? IMDEX's In-Field Geoanalysis solution saves you crucial time and resources during your drilling or sampling program, by providing the data you need, where and when you need it.

A rapid mobile sample preparation system consistently provides a quality sample for analysis that you can rely on without having to send the sample offsite. Coupled with REFLEX XRF CONNECT™ and the cloud based IMDEXHUB-IQ™ platform, you can make informed decisions with confidence.

## Seamless QA/QC workflows



### REFLEX CRUSHER™, MILL™ and PRESS™

- ✓ Field portable
- ✓ Rapid sample preparation



### REFLEX XRF CONNECT™

- ✓ Control QA/QC workflows
- ✓ QA'd assay data
- ✓ Secure chain of custody (no USB sticks)

## Secure access to your data **anywhere,** **any time**



### IMDEXHUB-IQ™

The award winning cloud-based portal sits at the heart of the solution.

### ONE SERVICE PROVIDER

Collect and verify your data in one, secure place

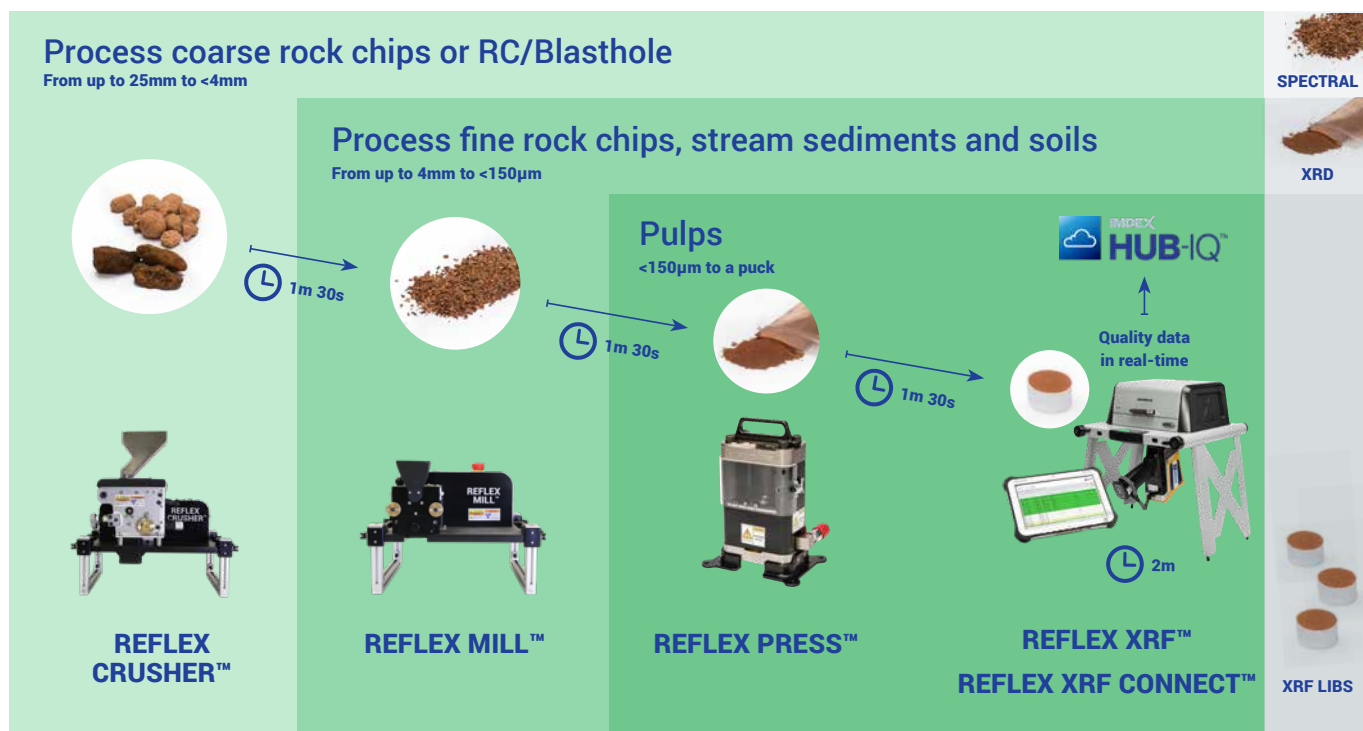
## Interpretation and analysis **in real-time**



Advanced data  
analytics and  
interpretation

### 3rd party software

# Quality geochemical data **in 10 minutes**



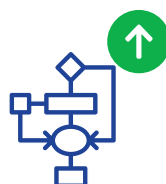
## Benefits



**INSTANT DECISION  
MAKING WITH ACCURATE  
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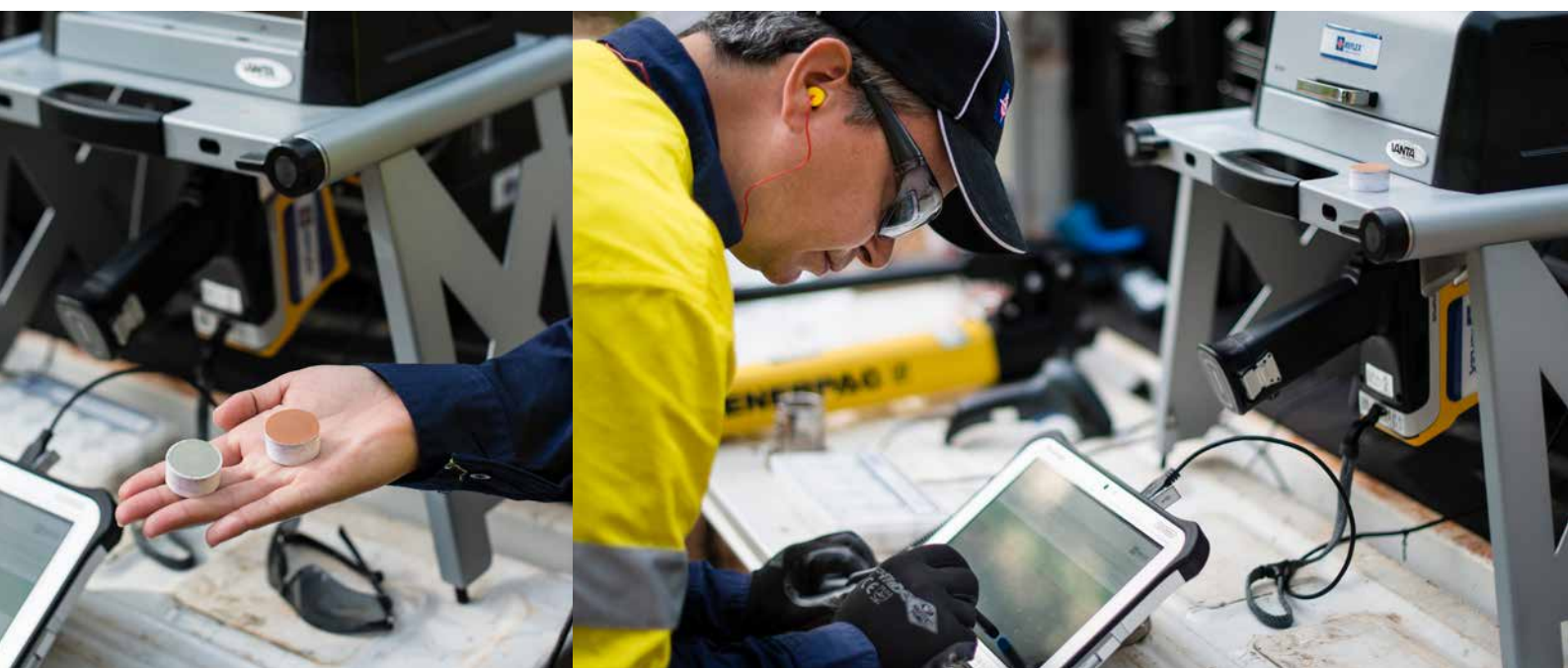
**CONSISTENT AND  
QUALITY SAMPLE  
PREPARATION**



**INCREASED EFFICIENCY  
FROM STREAMLINED  
QA/QC WORKFLOWS**



**PRIORITISE SAMPLES  
BEING SENT OFFSITE**





# Driller-Operable Geophysics

Know your critical lithological boundaries, before seeing the rocks

Geological logging can be qualitative, slow and subjective, sometimes with little support for the first pass assessment of drilling material. Imagine knowing where your critical lithological boundaries are before you see the rocks?

The REFLEX EZ-GAMMA™ can be used alone or with the REFLEX GYRO GAMMA SHUTTLE™ to allow efficient and simultaneous survey and gamma logging that can be completed by a member of the drill crew.

This unique combination of instruments saves time and eliminates the need for a costly technician and logging truck.

Results are immediately available for approval via IMDEXHUB-IQ™ and for analysis in ioGAS™. Available tools such as wavelet tessellation analysis allow geoscientists to rapidly analyse and visualise critical lithological boundaries, perform cross correlation, as well as identify zones of alteration.

**Simultaneously collect gamma and survey data**

**Secure access to your data anywhere, any time**

**Interpretation and analysis in real-time**

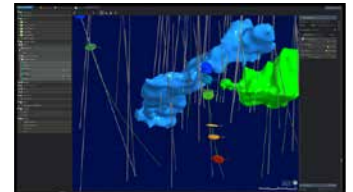


# Rapid and real-time boundary picking

FROM  
COLLECTION

... TO VALIDATION

.. TO ANALYSIS



**SEEQUENT**

.. TO 3D MODELLING

OR

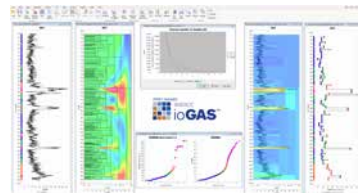
.. TO CORE LOGGING



IMDEX SURVEY-IQ™



IMDEX  
**HUB-IQ™**



IMDEX  
**ioGAS™**

## Benefits



INSTANT DECISION  
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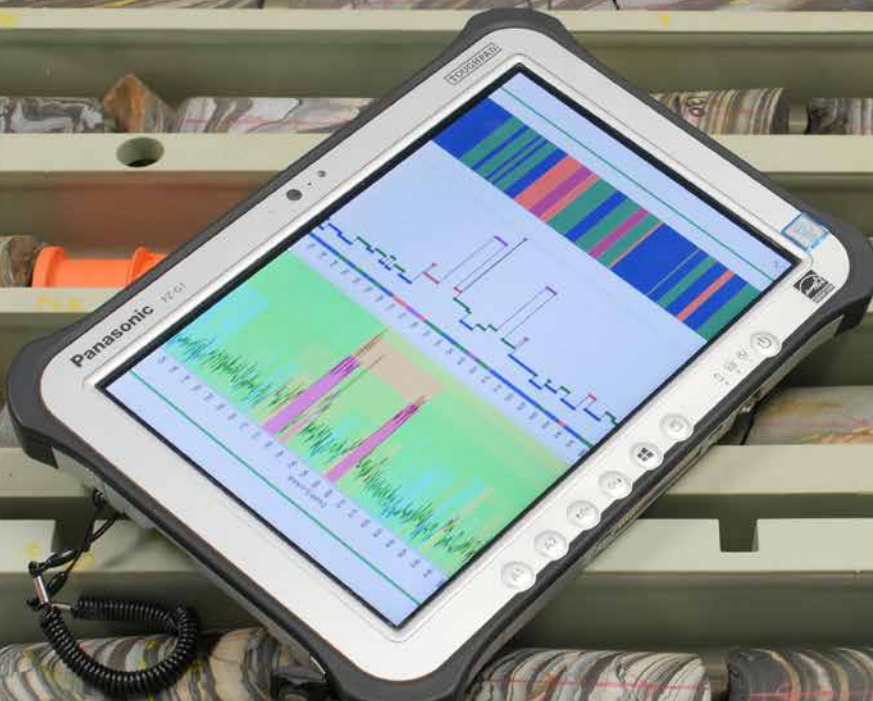
CONFIDENCE IN THE  
QUALITY OF YOUR DATA  
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NO ON-SITE TECHNICIAN  
REQUIRED WITH EASY TO  
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TOOLS



VISUALISATION AND  
ANALYSIS IN REAL-TIME





## Global presence, **local support**

IMDEX is an established business operating in all key mining regions of the world.

Our company's global presence and comprehensive distribution network allow us to provide local and timely solutions to clients. It also ensures we can efficiently introduce new technologies to our markets.



**“We have facilities in all key mining regions of the world and support clients in more than 100 different countries.”**

PAUL HOUSE, CHIEF OPERATING OFFICER

# Partnering with IMDEX

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## Best in class **support**

At IMDEX we're committed to offering the highest level of support to our clients, so you can receive support on our products and solutions wherever you are in the world.

- IMDEX Customer Care Portal online support centre - **[support.imdexlimited.com](https://support.imdexlimited.com)**
- On-site or remote support from qualified drilling fluid technicians
- Laboratory support and analytical services
- Personalised field and/or classroom training through **IMDEX Academy**.



## Supply chain and **logistics**

At IMDEX we understand the global logistical challenges of the drilling and mining industries.

We own and operate manufacturing and repair facilities in all key regions for our brands. Our facilities use state-of-the-art equipment, quality materials and enable us to control supply chain to the highest standards for our clients' operations.

We are committed to transparent, safe and ethical procurement practices. Our ethical buying and responsible sourcing program and practice are built on the Walkfree foundation's guidelines, "Tackling Modern Slavery in Supply Chains".



## Research and **development**

At IMDEX, we are committed to ongoing research and development to maintain and enhance our technical leadership and support our position as a leading global mining technology company.

Our company currently employs a high proportion of engineers, geoscientists, industrial chemists and data scientists working on R&D and ongoing product development.





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