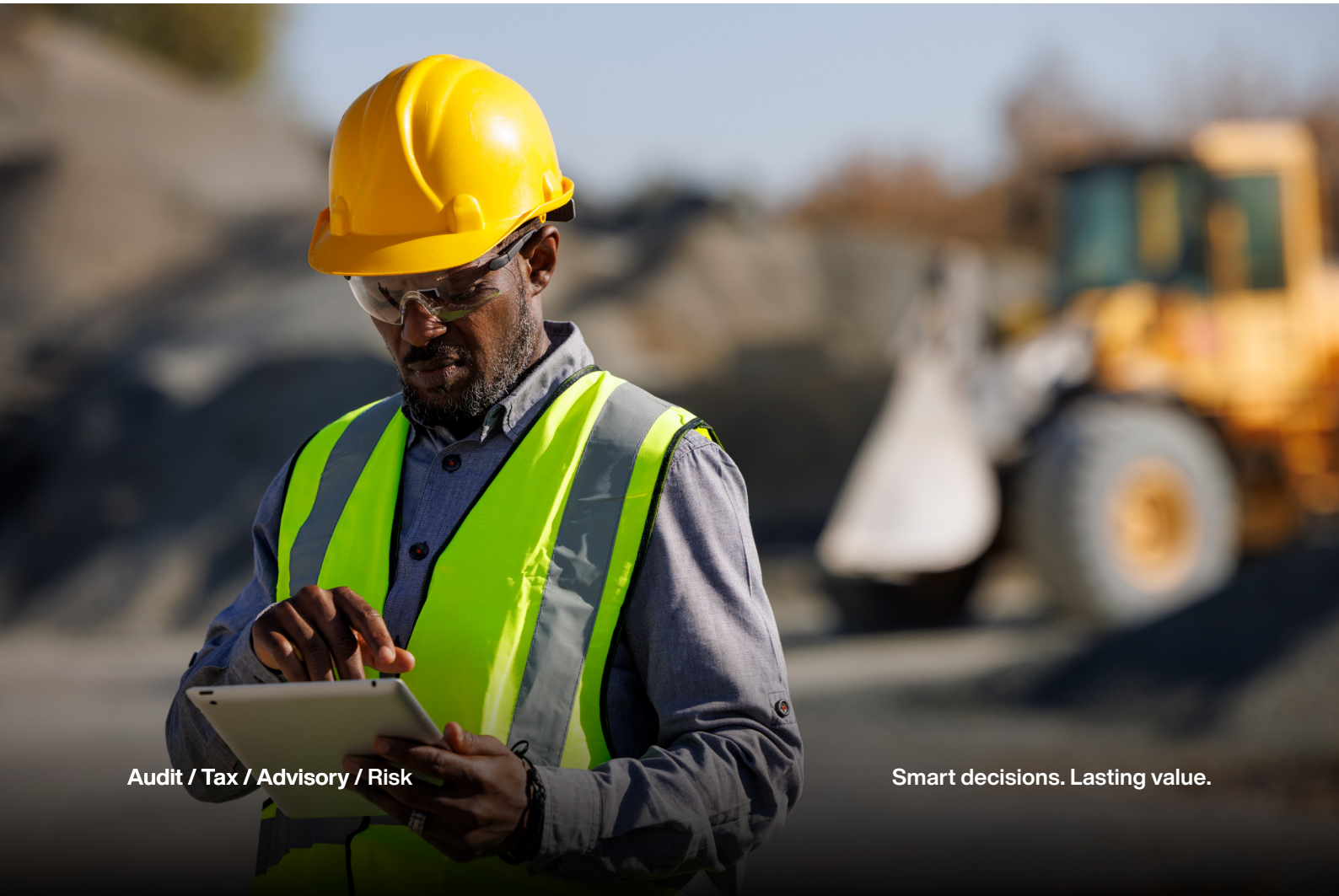


# Uncovering fraud and corruption in mining

Tim Robinson and Professor Mark Button



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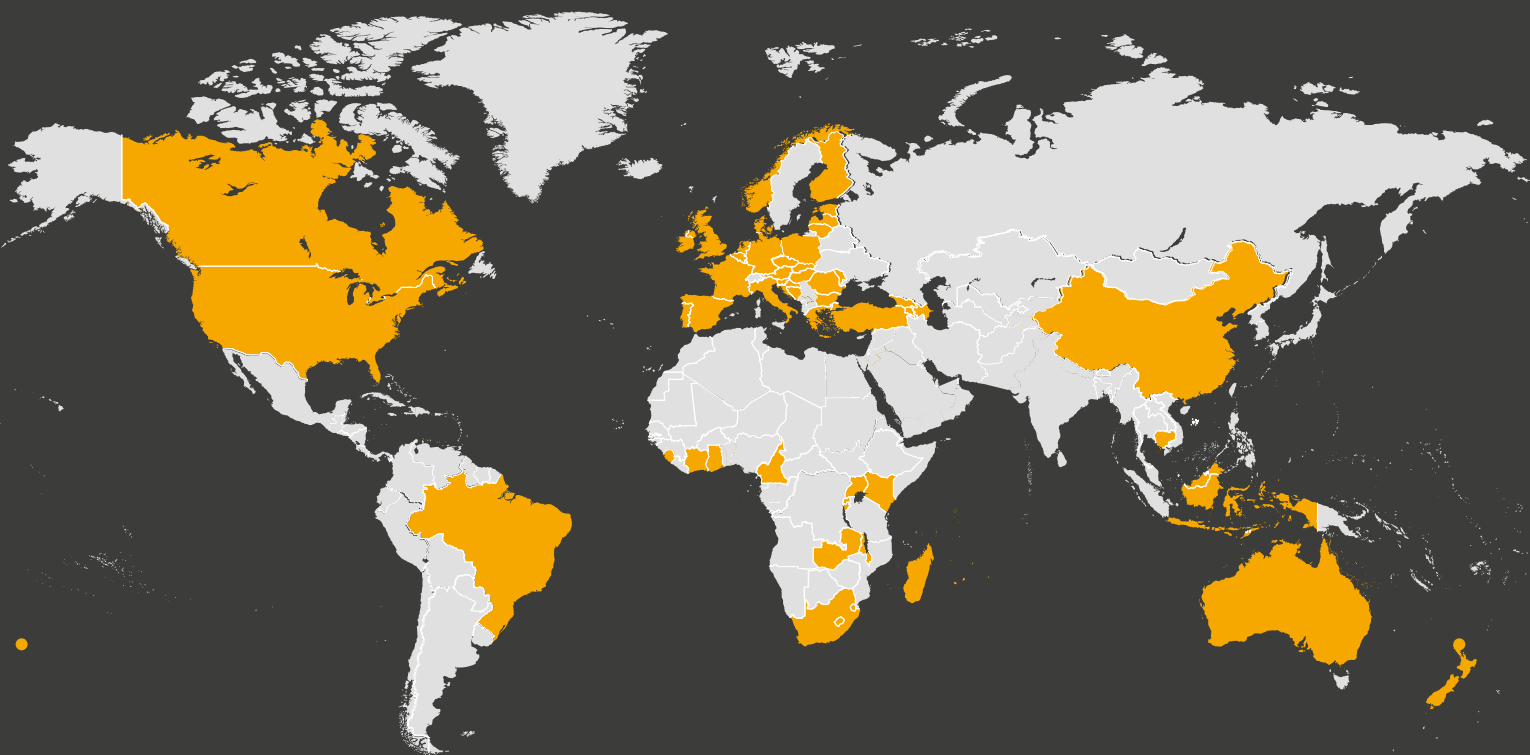
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## Background and introduction

For many years Crowe and the University of Portsmouth's (UoP) Centre for Cybercrime and Economic Crime have worked together to research the nature and extent of fraud and corruption and how best to reduce them.

Much of what has been learned from the research has been applied by Crowe to the benefit of its clients in the mining sector and elsewhere. Likewise, much of what Crowe has learned from its day to day work with mining clients has been fed back in to the UoP's research.

This report summarises what has been learnt over a 25 year period and includes details of specific case studies where work has been undertaken for mining companies and their operations across the world. Crowe's specialists have worked for clients in the amber countries indicated in the graphic below.



## What is fraud and corruption in mining?

Managing cost is an important discipline for any company but especially so in the mining sector, as demand and prices fluctuate. Operating an efficient and streamlined business and avoiding unnecessary cost is essential.

There are many costs that the sector has traditionally identified and taken into account; however business best practice develops very quickly, and it is now possible to reduce another business cost, of equal impact and significance, which historically has rarely been accurately quantified by the sector – the cost of fraud and the potential legal and regulatory costs of corruption.

Fraud and corruption can lead to less financially stable and healthy companies and their reduction can also significantly improve profitability; they can result in raw materials being more expensive than they should be and their reduction can significantly improve value for money. These positive outcomes arise from the benefits of reducing the significant costs that fraud and corruption present.

Fraud and corruption can also involve criminal and civil legal cases and regulatory and disciplinary sanctions – not just concerning those involved but also the companies affected by these problems. While the law will differ from country to country – and the extent to which it is enforced – the seriousness of the underlying problems are unaltered as are the activities which take place.



Examples of fraud in natural resources – uncovered personally by the authors of this report - include:

- goods and supplies not being delivered to the quantity or quality which has been procured
- counterfeit spare parts for equipment
- employees on the payroll who don't exist
- employees who don't have the claimed expertise or employment history
- the diversion of valuable ore
- infrastructure paid for but not built.



**Corruption can involve:**

- the payment of bribes required for the provision of Government permits
- the payment of financial kickbacks and other inducements by contractors to retain valuable contracts
- the diversion of company funds through fictitious 'front' companies with the owners of those companies taking a cut; and in many other areas.

It is easy to imagine that such behaviour is not happening because the very nature of fraud and corruption is that they are hidden. However, just because they may be hidden doesn't mean that the financial damage is not taking place or that the real risk of reputational and regulatory damage is not present.

## Key risk factors

What are the key risk factors for mining companies? Why is the risk greater than in other industries? Well, the risks involve several factors.

- The countries where they operate - mining companies may be headquartered in a country where the rule of law in relation to fraud and corruption is strong. However, mining operations are often based in countries where this isn't the case, meaning there are more opportunities for fraud and corruption to occur.
- The Gross Domestic Product (GDP) per capita in such countries is usually low and mines and the wealth that they generate can offer a massive contrast amidst poverty.
- The mines provide well paid employment where there is little, sometimes leading to significant corruption in the process of recruitment.
- Undemocratic governments in countries where there are few 'checks and balances' and little scrutiny of the actions of key individuals may feel that there is less risk in asking for, or requiring the payment of, bribes.
- There may be little meaningful recourse to the law in the event of a problem, making the taking of a shortcut by means of a corrupt payment seem an attractive alternative.
- Supply chains may be long with many permits and much documentation required for urgently needed items, equally leading to corrupt payments seeming to be an easy method of 'smoothing the way'.
- It is important to mining companies to understand the countries they are operating in and their laws, government, customs and culture. As a result, most appoint trusted local advisors. However, in some cases, such advisors, far from fulfilling the function which is intended, become corrupt intermediaries.

**All of these are real examples which the authors of this report have encountered and where they have helped mining companies to address.**

## What is the extent of fraud and corruption?

The latest research (from 2021) shows that fraud represents 6.4% of expenditure (up from 6.05% in 2019). This is a running loss rate from a massive database of over 800 statistically valid and accurate loss measurement exercises, with the total value of the expenditure considered over £25 trillion. Globally this represents £4.37 trillion (\$5.31 trillion).

Due to the difficulties in obtaining a representative sample, it is not possible to provide an accurate estimate for the cost of corruption. However, the costs will be in addition to those incurred by fraud, and there are the regulatory and reputational damages to consider as well. The World Bank quotes what it describes as 'a popular estimate'; that the global cost is more than £2.14 trillion (\$2.6 trillion", or 5% of global GDP).

For a particular company, it should be expected that at least 6.4% of expenditure is lost to fraud and corruption. For mining companies, depending on where they operate, it may well be higher. The percentage of expenditure lost will also vary according to the nature of the stream of expenditure. As is recounted later in this report (section six), actual loss measurement exercises in respect of procurement expenditure have revealed a much higher figure, nearer to 8%.

In assessing the likely cost of fraud and corruption for a particular company it is important not to look just at what has been detected. Unlike most other risks, the nature of fraud is continuously evolving and is often conducted covertly, meaning it is increasingly challenging to detect, with research showing only as little as 1/30th is detected.

**6.4%**

Fraud represents 6.4% of an average organisation's expenditure

**£2.14 trillion**

Global cost of corruption

**8%**

Fraud has been measured to cost up to 8% of a mining operation's expenditure

## How much this cost can be reduced and how quickly

Both research and practical action show examples of the cost of fraud being reduced by up to 40% within 12 months. In other words, if the cost of fraud is 6.4% then this can be reduced by over 2.5% to just under 4%. And, over a longer period, this can be reduced further.

Each time fraud is measured, statistically valid samples of items of expenditure are examined – one by one – and the nature of the examination is such that, where fraud is found, the process or systems weakness which allowed each fraudulent payment to take place is identified. These weaknesses form a list of areas of action to be taken.

The cost of such reductions make such work a worthwhile investment with up to a 12:1 return on the costs of the work recorded.

The benefits are clear, more financially healthy and stable companies and reduced risk of regulatory and reputational damage.

Practical action can reduce the cost of fraud by up to

**40%** within 12 months



## Case studies

Below are four case studies describing the forensic work which Crowe has undertaken to reduce the extent of fraud and corruption.



### Systematic corruption

#### **The suspicion:**

A gold mining company, headquartered in Australia, suspected their Head of Operations who was based in a mine in West Africa was engaging in systematic corruption.

#### **The forensic work revealed:**

- monthly corrupt payments being made by main contractors to the Head of Operations
- substandard and unsafe work being undertaken by these contractors
- government licences to undertake work being forged
- over \$1 million dollars being lost
- effective pre-employment checks would have revealed previous problems with the Head of Operations when he was working for other companies.

## Copper mine corruption

### **The suspicion:**

Crowe was proactively engaged by one of the largest copper mines in the world to reduced the extent of fraud and corruption.

The mine spent \$800 million on procuring goods and supplies each year.

### **The forensic work revealed:**

- 300 people on the payroll who didn't exist
- 7.8% of procurement expenditure was lost each year. Action was taken to reduce this and it the losses were cut by 51%
- \$20 million savings per year were delivered.

## Fraud awareness training

### **The suspicion:**

Crowe was proactively engaged by a large copper and gold mine. They undertook a fraud resilience review to assess the level of protection which the mine had against fraud and trained over 300 people to improve fraud awareness.

### **The forensic work revealed:**

- serious weaknesses in the payroll and procurement areas
- counterfeit parts being used for some of the equipment
- mining specialists using forged trade qualifications.

## Corrupt payments by country manager

### The suspicion

Crowe was engaged to investigate suspicions of fraud raised by the London headquarters of an iron ore mine regarding its Country Manager. As part of the forensics work, email, landline and mobile data was analysed using specialist software to determine information flows and undisclosed networks of individuals.

### It revealed:

- that the Country Manager had established various 'front' companies and was channelling the company's funds through them, sometimes doubling or trebling costs
- numerous corrupt payments were being made
- the Country Manager had done this before.  
Professional vetting would have avoided the problem.



# What can be done

There are five key steps

1

It is important to have answers to two key questions:

How much does fraud cost you?



How well are you protected (or resilient to fraud and corruption)?

2

Procurement expenditure is an area where costs can be rapidly reduced – focus on this area first

3

Assess and improve levels of fraud and corruption resilience – this will help to cut the cost of fraud

4

Undertake professional due diligence on key senior staff and major contractors

5

Ensure there are high levels of fraud awareness among staff – specialist training can help to get the culture right

## Conclusion

Fraud and corruption are not just reputational risks but represent significant, hidden costs. Most fraud is high volume low value which makes it very hard to detect. Work to counter fraud and corruption within mining should be focussed on pre-empting fraud rather than having to react after it has happened and losses have been incurred.

The bad news is that the cost of fraud is significant and increasing; the good news is that something can be done to reduce that cost and like with any cost, that can improve profitability.



## About the authors



**Tim Robinson**  
Partner, Forensic Services

- Tim is a member of the Association of Certified Fraud Examiners and an accredited Information Security specialist.
- He leads Crowe UK's work with clients to ensure that they are properly protected against the latest manifestations of cybercrime and fraud.
- Tim is experienced in carrying out in-depth expert fraud investigations to uncover the truth, prevent further loss and recover what has been taken.
- Tim helps organisations to build resilience against fraud, bribery and corruption.
- Key aspects of his work include how well an organisation understands the nature and cost of fraud and the steps it should take to measure and reduce it, like any other business cost.



**Professor Mark Button**  
Director of the Centre for Cybercrime and Economic Crime

- Mark Button is Director of the Centre for Cybercrime and Economic Crime at the School of Criminology and Criminal Justice, University of Portsmouth.
- Mark has written extensively on counter fraud, cyber-fraud and private policing issues, publishing many articles, chapters and completing eight books.
- His book (co-authored with Dr Cassandra Cross) is titled Cyber Frauds, Scams and their Victims has just been published by Routledge.
- Some of the most significant research projects include:
  - leading the research on behalf of the National Fraud Authority and ACPO on fraud victims
  - the Department for International Development on fraud measurement;
  - Acromas (AA and Saga) on 'Cash-for-Crash fraudsters'
  - the Midlands Fraud Forum, Eversheds and PKF on 'Sanctioning Fraudsters'
  - the Government's Annual Cyber Breaches Survey.
- Mark has also acted as a consultant for the United Nations Offices on Drugs and Crime on developing international standards for Civilian Private Security Services and the United Nations Development Programme/European Union on enhancing civilian oversight of the Turkish private security industry.
- Mark is also a former Director of the Security Institute.
- Before joining the University of Portsmouth he was a Research Assistant to the Rt Hon Bruce George MP specialising in policing, security and home affairs issues.
- Mark completed his undergraduate studies at the University of Exeter, his Masters at the University of Warwick and his Doctorate at the London School of Economics.



## Start the conversation

### **Tim Robinson**

Partner, Forensic Services  
tim.robinson@crowe.co.uk  
+44 (0)20 7842 7239

### **Paul Blythe**

Partner, Head of Mining and Energy  
paul.blythe@crowe.co.uk  
+44 (0)20 7842 7231

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