



# Competent Person Discussion Forum

24<sup>th</sup> March 2022

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

# Competent Person Discussion Forum

## Purpose

The purpose of this session is to give members of the parent bodies an opportunity to contribute to the discussion on Competency and the Competent Person, as it relates to JORC Public Reporting under the current code review.

The morning sessions will provide important context to the discussion so that all participants are informed of where we are at, as well as how and why we have arrived here.

The discussion today will provide an important reference point to the next steps of the process.

We want to be clear that there are **no decisions or predetermined outcomes** regarding how we will move forward on modifying Competent Persons requirements under the Code.

# Competent Person Discussion Forum

## Agenda

### *Session One 9:00am – 10:15am*

- Introduction and Meeting Etiquette – *Leigh Slomp/Dale Sims*
- The JORC Code: A history of relevant events – *Peter Stoker*
- The Change Imperative – *Chris Cairns/Rene Sterk*

### *Morning Tea*

### *Session Two 10:45am – 12:00pm*

- JORC 2022 Review: Progress Update – *Steve Hunt*
- Competence in Other Jurisdictions – *Andrew Waltho*
- Summary of Morning Sessions – *Dale Sims/Leigh Slomp*

### *Lunch*

# Competent Person Discussion Forum

## Agenda

### *Session Three 1:00pm – 4:00pm*

- Open Floor Discussion
- Closing comments from the Listening Panel

### *Networking Drinks 4:00pm – 6:00pm*

- Joined by Young Professionals workshop participants at 5:00pm

### *Listening Panel*

Session Three is not designed to be a Panel Discussion, it is an open discussion forum for members to contribute to the conversation. The Listening Panel are those contributing experts to the Morning Sessions who, at the close of the session and time permitting, will be afforded an opportunity to reflect and summarise the discussion

# Meeting Etiquette

## Chatham House Rule

*“When a meeting, or part thereof, is held under the **Chatham House Rule**, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.”*

- We will not be making a recording of today's Discussion Forum available for use by any participants, related parties or external bodies, with the express exception of the following purposes;
  - Collating an accurate record of the discussion whilst maintaining the anonymity of speakers and participants, for sole use as an important reference for the next steps in the JORC competency review process
  - To provide time limited access to a closed-captioned recording for the hearing impaired according to the Web Content Accessibility Guidelines to meet our obligations under Australia's Disability Discrimination Act

# Who's who

## JORC Committee

Main Committee administering JORC – Steve Hunt (Chair)  
20 people; AIG, AusIMM, MCA, ASX, FinSIA, CRIRSCO, Accounting Profession

## JORC Review Competent Persons Working Group

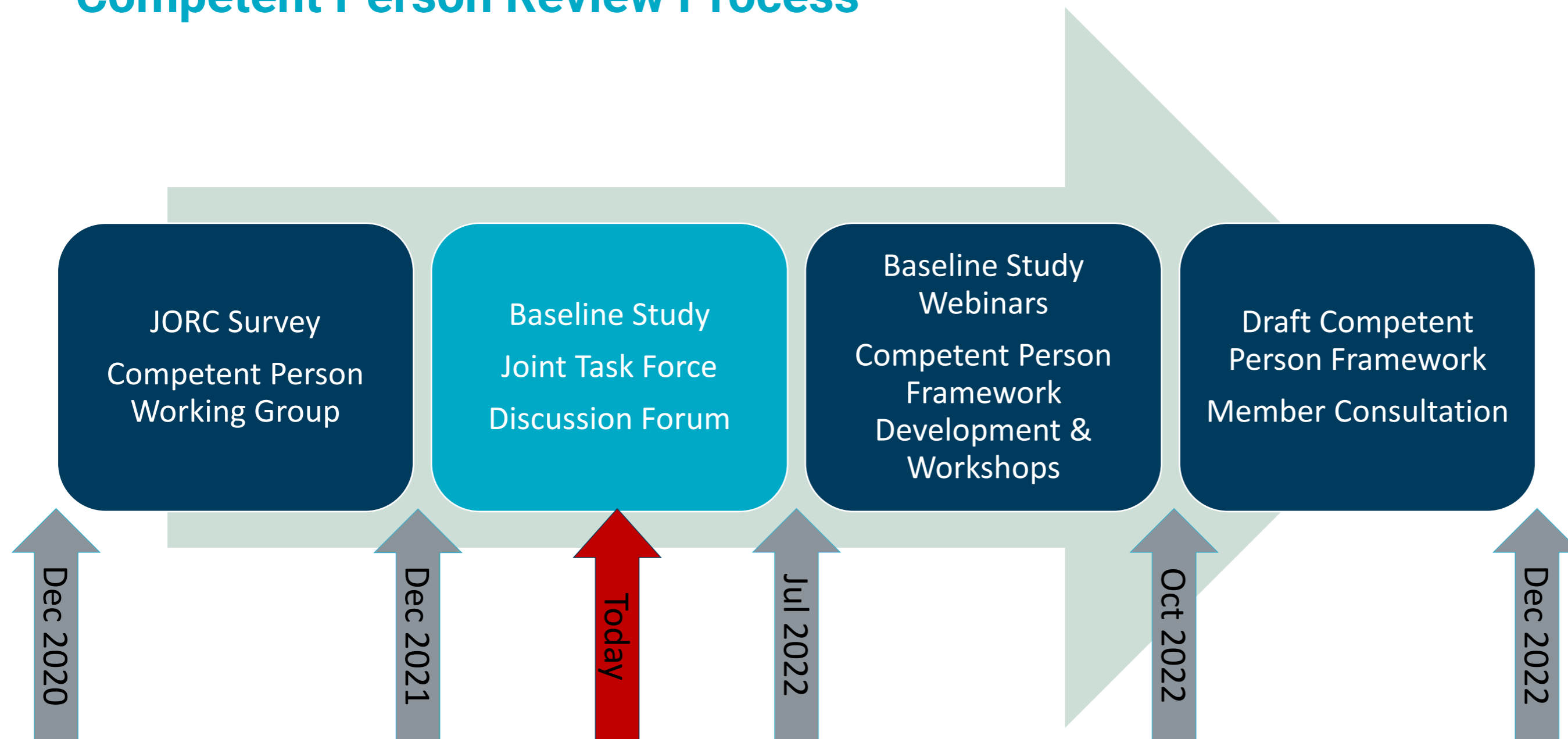
Temporary committee for JORC review  
Chris Cairns (Chair) + ~6 people AusIMM and AIG

## Joint AIG/AusIMM Competent Person Taskforce

Taskforce to consider/develop/communicate modifications to  
Competent Person qualification requirements under JORC revision  
Nicole Brook (Chair) / Dale Sims (Dep Chair)  
3 AIG and 3 AusIMM members

# Competent Person Discussion Forum

## Competent Person Review Process



# Baseline Study

Delivery date end March 2022

Item	Topic
a	Describing the current definition and framework relating to Competence and Competent Person.
b	Providing a summary of identified and perceived issues relating to Competence and Competent Person.
c	Providing a Stakeholder map, including detailed (cross) references to each stakeholder's interest in competence.
d	Providing a JORC on-line survey response summary, relevant to the Competent Person issue.
e	Providing a summary of ASIC correspondence on the Competent Person issue.
f	Describing the history of relevant events, precursors and previous discussions.
g	Describing what other jurisdictions do regarding competence and their solutions and making an assessment of what solutions are deemed to be practical and effective for purpose, what solutions are not working.
h	Describing what other industries do regarding competence and their solutions and making assessment of what solutions are deemed to be practical and effective for purpose. what solutions are not working.
i	Preparing a full risk analysis, including providing an opinion as to the consequences of not doing anything.
j	Providing a summary of outcomes of academic and other relevant studies/papers.
k	Providing a discussion on differences between Accreditation versus Registration.
l	Providing a discussion of transitional measures for any new definition and suggested duration.
m	Providing the data to support the Baseline Study, such as: number of acting Competent Persons who are members of AusIMM and/or AIG, number and type of transgressions, examples of Competency-related value destruction.
n	Reviewing and suggesting an enforceable disciplinary process including the powers to suspend or expel a member.





# The JORC Code: A brief history of relevant events

Peter Stoker



# History of relevant events

**Competent Person Discussion Forum  
24 March 2022**

**Speaker: Peter Stoker, JORC Deputy Chair**  
**The opinions expressed today are not necessarily those of JORC**



# OUTLINE OF DISCUSSION

- Brief early history international and Australian
- Poseidon Boom & Bust
- The aftermath – the ‘Rae Commission’
- The AusIMM & AMIC Joint Committee on Ore Reserves and its Reports
- The 1989 JORC Code
- Professionalism and the formation of the AIG
- Who is responsible?
- ASX JORC AusIMM AIG discussions
- Monitoring

# GEORGIUS AGRICOLA 1556 IN DE RE METALLICA

- It is therefore necessary that those who take an interest in methods and precepts of mining and metallurgy should ... consult expert mining people, though they will discover few who are skilled in the whole art.
- Agricola goes on to discuss the areas of competence on which those interested in mining ought to seek expert advice.

# EARLY AUSTRALIAN & OVERSEAS ENDEAVOURS

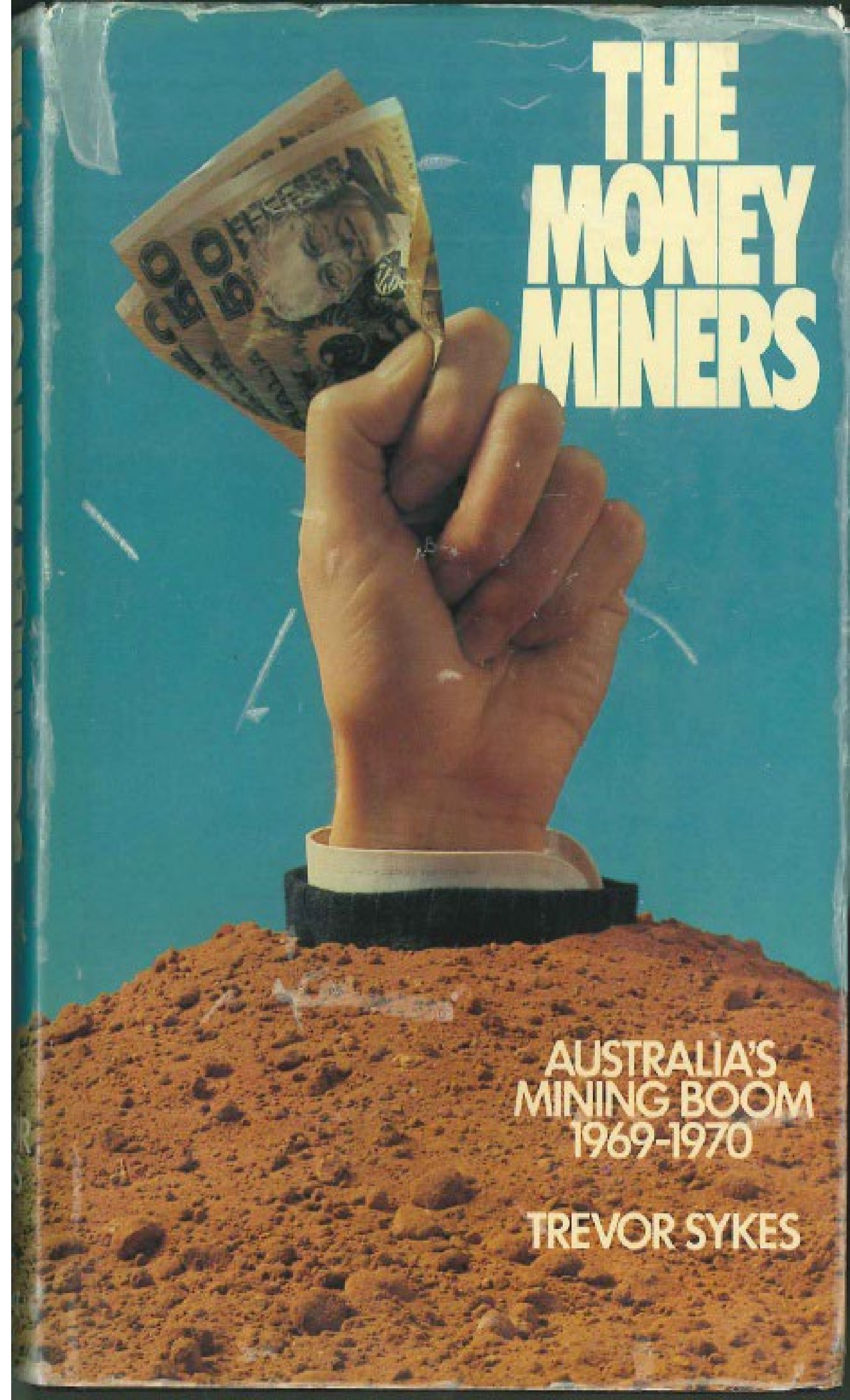
- In the USA the US Bureau of Mines introduced a three-fold classification of Ore Reserves in 1943.
- In Australia each mining company or “operation tended to estimate Reserves using methods developed specifically for its orebodies.
- In 1953 the AusIMM set up a “Committee on the Nomenclature of Classification of Ore Reserves”, but the committee was unable to achieve support for its recommendations.
- We will look at the Poseidon Boom & Bust next, but it is relevant to note from the Canadian perspective the impact of the Busang fraud and to note that the three of the first five cases dealt with by the USA SEC on formation in the 1930s were mining frauds.

From: The History of Ore Reserve Classification and Reporting in Australia, Stephenson & Glasson 1992

## POSEIDON NICKEL, AUSTRALIA WHERE IT ALL BEGAN FOR JORC!

“On October 1, 1969, Poseidon directors issued an historic report to the Adelaide Stock Exchange before the start of trading. The statement began: ‘Further to the report of the recovery of nickel and copper sulphides on September 29, the directors of Poseidon NL announce that the assays received to date of the first completed drill hole PH2 at Windarra, WA, are as follows .....

Trevor Sykes - *The Money Miners*.



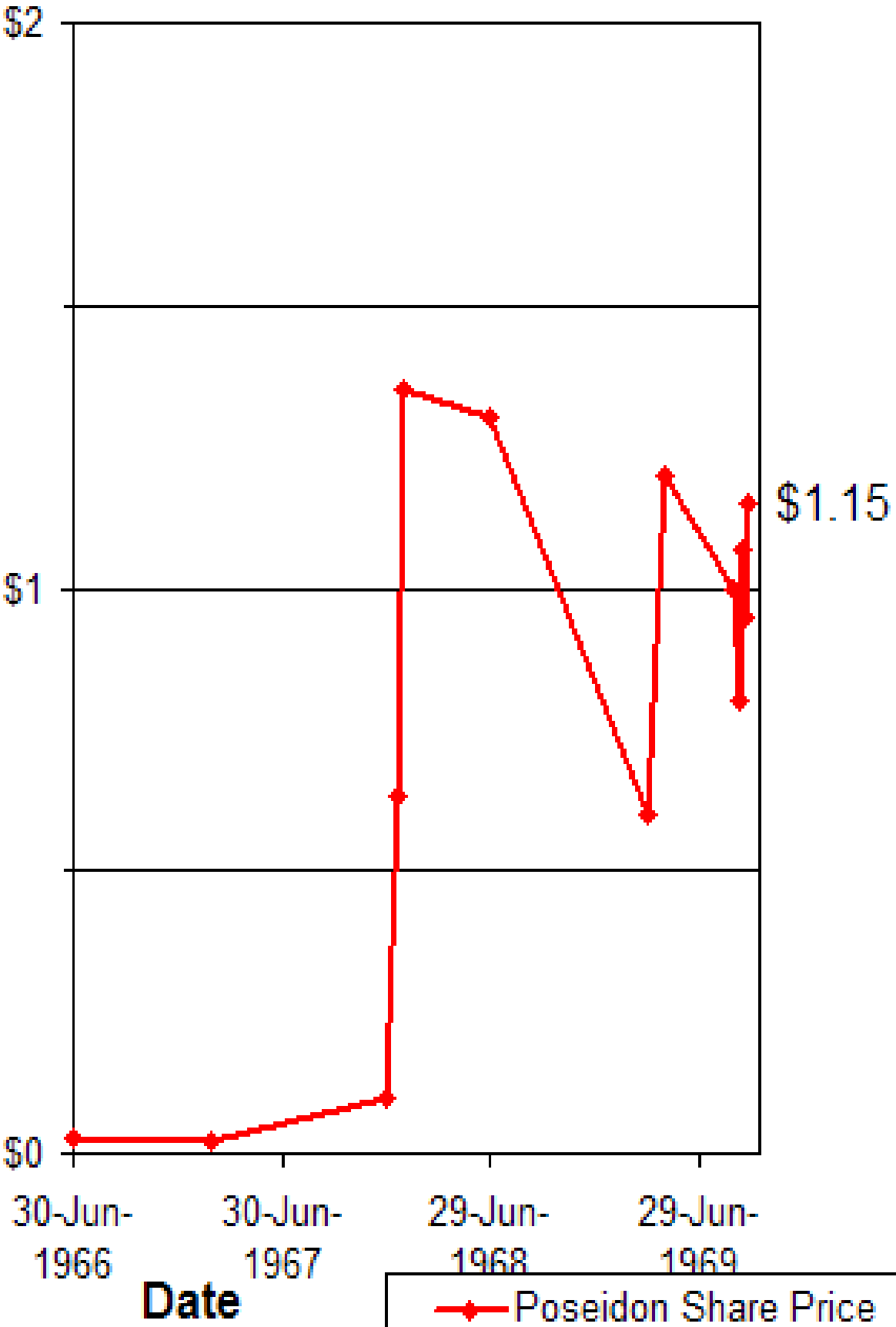
# POSEIDON BOOM – 1969 REPORT

<b>From - to in feet</b>	<b>Length in feet</b>	<b>Ni %</b>	<b>Cu %</b>	<b>Type of Ore</b>
0 - 25	25	0.4	0.1	Leached Ore
25 -115	90	1.53	0.25	Oxide
115 -145	30	1.6	0.4	Disseminated Sulphides
145 -185	40	3.56	0.55	Massive Sulphides

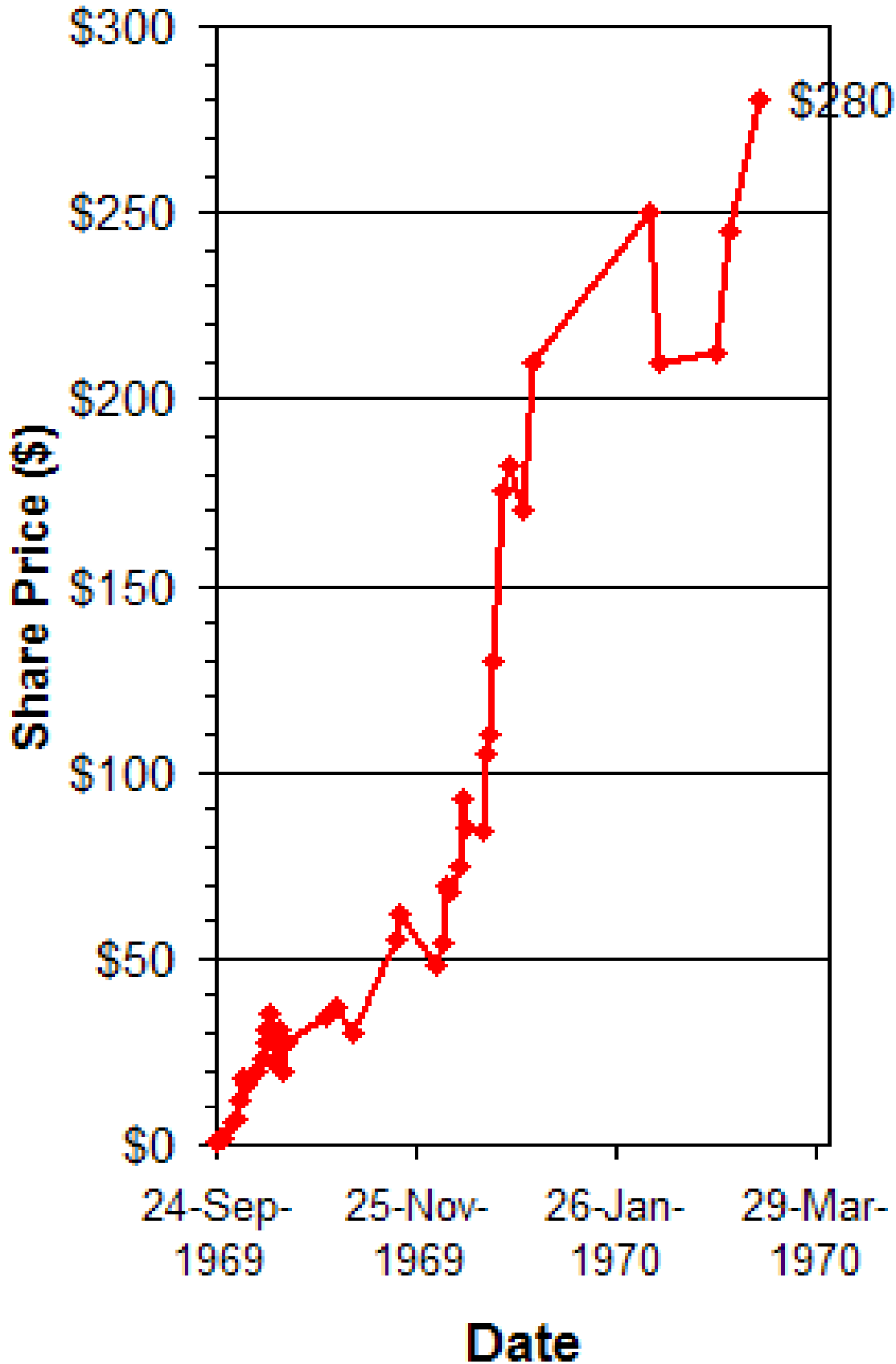
“The Consulting geologists, Burrill and Associates Pty Ltd, quote that the mineralised zone has an indicated length of 1000 ft and a minimum width of 65 ft.”

# POSEIDON BOOM & BUST – SHARE PRICE

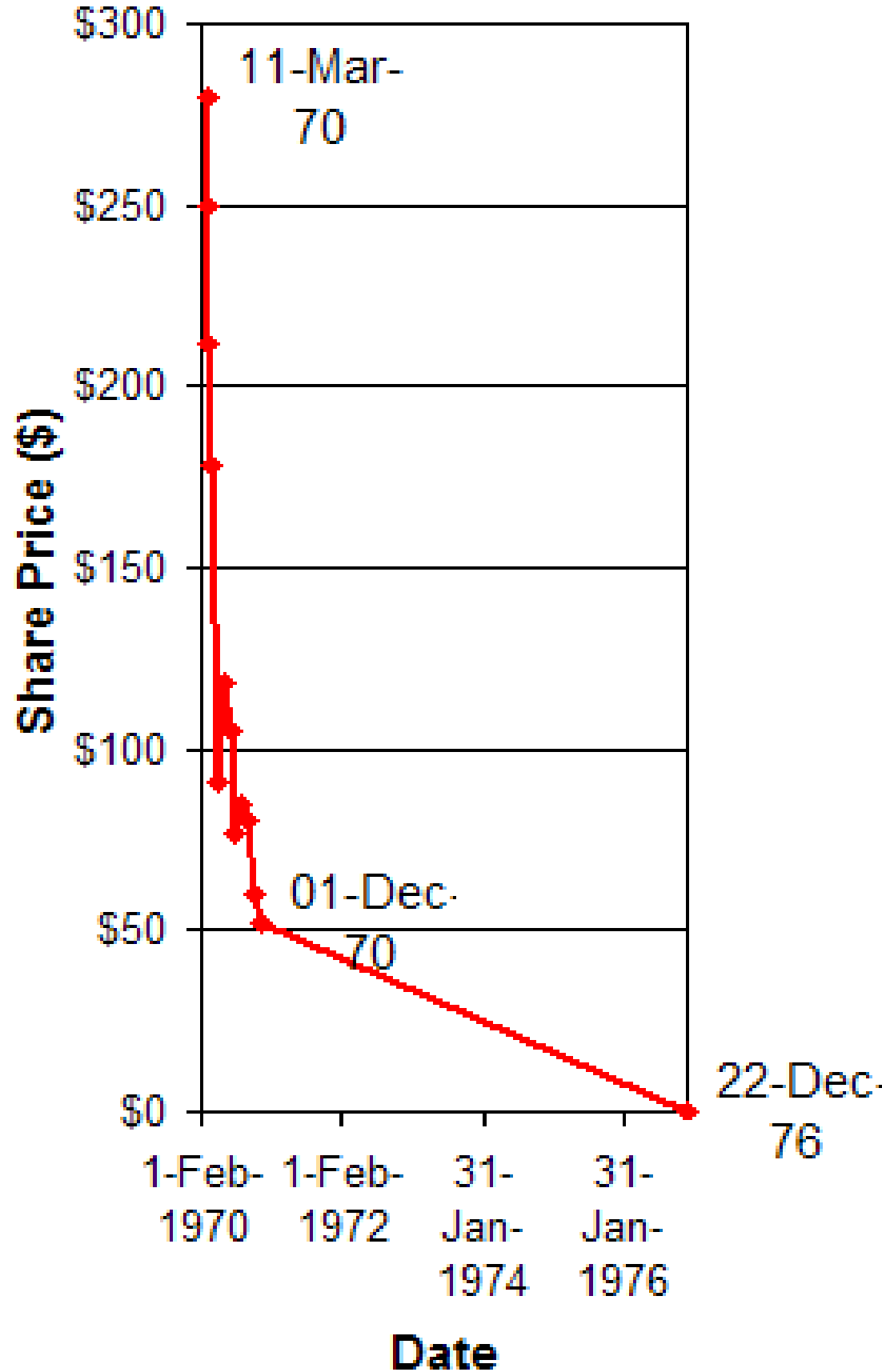
**Poseidon Share Price - June 1966 to 24 Sept 1969**



**Poseidon Share Price - 24 Sept 1969 to 11 March 1970**



**11 March 1970 to 22 Dec 1976**





## POSEIDON BUST – AFTERMATH

At the time of reporting, Poseidon only had early stage, AAS assays that had been rounded down to the nearest whole percentage point. The actual assays were 11% lower, but the public was not given this information until five years later.

The consulting geologist, Burrill, was a substantial shareholder in the Poseidon, and as revealed in the Rae Commission Burrill and others engaged in insider trading.

## THE SENATE SELECT COMMITTEE ON SECURITIES AND EXCHANGE – 'RAE COMMISSION'

- The Australian Senate set up the Senate Select Committee on Securities and Exchange in 1970 in the wake of the speculative share market collapse known as the Poseidon bust.
- The Rae Report documented the intertwined activities of the geological consultants, company directors, and stock exchange committee member, and noted significant conflict of interest issues.
- It is relevant to quote from the report on these matters particularly related to the evidence of geologists Burrill and his associate Mr. Jones:

## VOLUME 1 OF THE RAE REPORT ON PAGE 2.123

“In our view, it is intolerable that consulting geologists should have free licence to behave in this way. Yet there was no evidence that any State regulatory authority or professional geological body had ever challenged their conduct. Mr Jones told us (in 1971) that geologists have not been subject to a code of ethics, unless they happened to be a member of the Institute of Mining and Metallurgy (Ev. 202). He was a member of that body, but it apparently did not concern itself with the kinds of practices of geologists we have described.”

## THE JOINT COMMITTEE ON ORE RESERVES

In September 1971, the Melbourne Stock Exchange asked AMIC for its opinion on a proposal that use of US Bureau of Mines terminology should be included in listing requirements for mining companies. Shortly afterwards, the Senate Select Committee on Securities and Exchange invited The AusIMM to comment on evidence that, within the Australian mining industry, "there were no recommended or required standards or terminology for expression of ore reserves".

In response to these approaches, a Joint Committee was formed with representatives from both The AusIMM and AMIC with the brief to consider the matters raised by the Melbourne Stock Exchange and the Senate Select Committee.

From: The History of Ore Reserve Classification and Reporting in Australia, Stephenson & Glasson 1992

## REPORTS OF THE JOINT COMMITTEE ON ORE RESERVES

The Joint Committee issued an initial report in April 1972 and as well as discussing terminology recommended for reporting “on a company’s ore or mineralisation position”, it also concluded that:

“It followed therefore that estimates of ore reserves and reports on related matters at earlier stages should be prepared by “responsible professionally qualified” persons (quoting the Institution of Mining and Metallurgy, 1954 ) of appropriate experience.”

It went on to recommend:

### *3. Requirement Regarding Competence*

The Committee considers that competence and experience are the most important factors involved in reporting on an ore or mineralisation situation. Because of this, it would not, in the opinion of the Committee, be unreasonable to expect any company exploring for minerals to meet a required level of competence, as a condition of listing with the Stock Exchanges.

The Stock Exchanges should require companies exploring for minerals to establish their competence with the Australian Associated Stock Exchanges according to the definitions below. The onus would be on each company, once its competence has been established, not only to maintain its status in this regard but also to ensure that any reports in the context of mineral exploration and assessment issued by the company, are based on work compiled by competent persons as defined.

### **(a) Competent Person**

Where reports on a company's ore or mineralisation situation are concerned, a person responsible for the compilation of such reports would be acceptable as "competent" if he is a Corporate Member of The Australasian Institute of Mining and Metallurgy, and also has a minimum of five years' experience in the field of activity in which he is reporting.

A Corporate Member is defined at article 5 of The Charter (AusIMM Royal Charter 1955) "The Honorary Members, Life Members, Senior Members, Members, Senior Associate Members, Associate Members and Company Members shall be known as Corporate Members". The membership grades were altered in subsequent AusIMM byelaws, and that term then meant : Honorary Fellows, Fellows and Members.

## THE JORC CODE

- There were subsequent Joint Committee Reports in 1975, 1981, 1982 and 1985 with little change to this Competent Person definition.
- In an amendment to its official listing requirements as at 1<sup>st</sup> March 1973, the Australian Associated Stock Exchanges adopted a number of the joint committee recommendations, including the concept of a Competent Person (although the words "Competent Person" were not used).
- In 1989 the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves was issued, which included the following definition:
  13. A "Competent Person" is a person who is a Corporate Member of the Australasian Institute of Mining and Metallurgy with a minimum of five year's experience in the relevant Resource and Ore Reserves assessment field.
- The 1989 JORC Code was incorporated as an appendix to the ASX Listing Rules. **A most significant event!**

## THE FORMATION OF THE AIG

- As a result of these adverse comments and other comments made during the Senate Select Committee hearings and statements by the Chairman of the committee and reports of the Committee, members of the Geological Society of Australia (GSA), a learned society, actively discussed the introduction of a Code of Ethics to govern behaviour of geologists.
- The events are summarised the AIG News Quarterly Newsletter No70 November 2002 article: ‘Twenty-one Years Later: A Perspective on the Establishment of the AIG’ by John Cramsie.
- The article states:

“In releasing his committee’s report, Senator Rae proposed that geologists should be licenced”.
- Whilst that is not referenced in the article and I cannot find mention of it in the Rae Report or Senate Hansard records, it was undoubtedly clear that something needed to be done.



## THE FORMATION OF THE AIG (2)

- The GSA members made significant progress towards licencing of geologists by the state governments. But changes of government and the reluctance of many in GSA, led to the proponents forming the AIG, a professional institute for geologists.
- The AIG was then included as a professional body in definition of a Competent Person the 1992 edition of the JORC Code.

## RESPONSIBILITY – WHO IS RESPONSIBLE?

- One of the attractions of the JORC Code to the ASX was obviously that there was someone, the Competent Person, responsible for the information reported on resources and reserves. Also, those Competent Persons were subject to a Code of Ethics and potential disciplinary procedures from the AusIMM.
- How those disciplinary procedures were applied was not apparent, apart from reading the bye laws, but complaints made were treated confidentially.
- To the best of my knowledge AusIMM has only named five individuals, and it was not until the mid 2000s that any reports at all on the activities of the Complaints and Ethics committees were published, all be it anonymised.

# MONITORING

- Stephenson and Glasson note in relation to the introduction of the JORC Code in 1989 that:  
“The Committee is acting as an adviser to the Australian Stock Exchange with regard to compliance with the Code in public reporting by ASX-listed mining companies.”
- My understanding is this was partially supported by ASX.
- By the early 2000s there was growing concern with the standard of reporting and the lack of any obvious monitoring and action to improve the reporting standards. There were a number of meetings, over three years, between ASX, JORC and JORC’s parent bodies AusIMM, AIG and MCA, to attempt to improve the situation.
- There were a number of issues identified as roadblocks to action, the most telling one was the issue of professional liability for professionals involved in reviewing reports.
- No progress was made then, but eventually ASIC and later ASX employed geologists to internally monitor reports, but it is my impression there is still disquiet that there is not a transparent professional institute complaints and disciplinary process in existence.

# Thank you

## Information derived from the, as yet incomplete, JORC Competent Person Baseline Study

**Code Update Contact:**

Project Manager – JORC Review

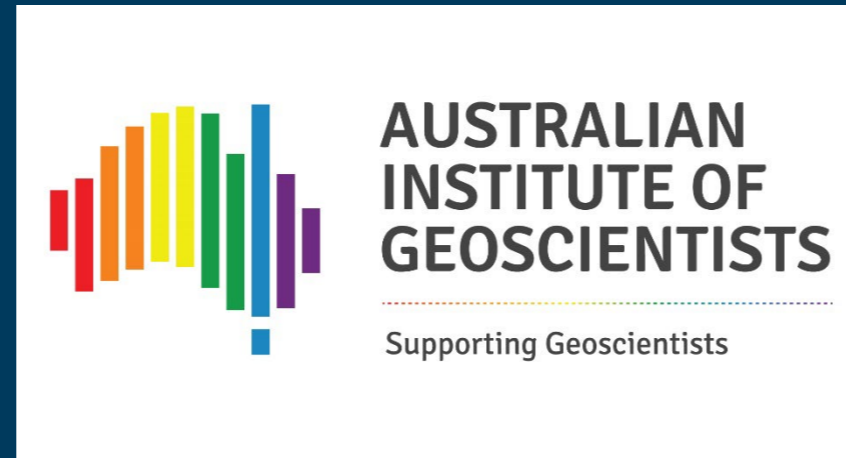
[update@jorc.org](mailto:update@jorc.org)



<http://www.jorc.org>



[https://www.linkedin.com/company/  
australasian-joint-ore-reserves-  
committee](https://www.linkedin.com/company/australasian-joint-ore-reserves-committee)



# The Change Imperative

Chris Cairns & Rene Sterk

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



# Competency: The Change Imperative

CHRIS CAIRNS – FAIG, FAusIMM, JORC member since 2005, Chair of  
the JORC Competent Person Working Group

# The ASIC Letters

- ▶ When informed that there would be a revision of the reporting Code, JORC received 3 letters from ASIC detailing areas of concern ASIC had identified
  - 4 March 2020 (11 pages)
  - 23 March 2020 (3 pages)
  - 22 March 2021 (6 pages)
- ▶ While the content of the letters is being treated as confidential, the key areas of concern can, and should be, communicated to stakeholders

# Key Areas of Concern

1. Self-nomination of competence
2. Competent Persons taking responsibility for aspects of Public Reports that are outside their experience or areas of expertise (CP 'stretch')
3. Opaque and ineffective disciplinary processes
4. High degree of variation in quality of Public Reports, especially for Mineral Resources and Ore Reserves
5. Competency seen as a primary contributing factor to significant shareholder loss



# Self-Nomination of Competence

- ▶ ASIC has observed practitioners self-identifying as having sufficient competency regardless of the nuances and complexities of a particular project.
- ▶ The result of the existing framework which relies on self-assessed competency and voluntary complaints-based oversight of practitioners is that mineral resource and reserve estimates reported in the market are of significantly varying quality.
- ▶ We see the proposed revision of the Code as an opportunity to improve the quality of public reports and estimates by expanding on the meaning of competency for practitioners and introducing more rigid requirements that can be objectively determined.
- ▶ ASIC is supportive of the Committee **taking bold steps** to improve, validate and verify the competency of competent persons, particularly should it involve member bodies taking responsibility for the accreditation and oversight of their members.
- ▶ JORC Code training programs are not a substitute for clear and enforceable competency requirements.

# Competent Person 'stretch'

- ▶ ASIC has observed that practitioners who self-recognise as technically competent are often expanding that competency assessment into areas outside of their technical competency.
- ▶ The result of the existing framework which relies on self-assessed competency and voluntary complaints-based oversight of practitioners is that mineral resource and reserve estimates reported in the market are of significantly varying quality.
- ▶ For assets of similar size and stage of progress ASIC has noted estimates which have been subject to development and review of a team of consulting engineers, geologists, environmental scientists, business analysts, metallurgists and other professionals. In other cases, estimates may be the result of a single in-house or consulting geologist.
- ▶ ASIC has observed a correlation of the single-CP estimates and under-performance of development assets, both in capital cost over-runs and grade / revenue under-performance

# Competent Person 'stretch' (con't)

- ▶ ASIC would like to see a greater connection between the professional requirements to consider the modifying factors and the competency requirements for practitioners could narrow qualitative issues without adversely impacting those already producing high quality reports. For example, requirements for persons with environmental-specific technical qualifications being required to address environmental modifying factors.
- ▶ In essence, what is being said in this regard is that there should be multiple CP's involved when specialist areas of expertise are contributing to a Public Report describing a Mineral Resource or Ore Reserve estimate.
  - Note: The concept of multiple CP contribution to a Public Report describing a Mineral Resource or Ore Reserve estimate is already described in the Guidance to the 2012 JORC Code (Clause 11, paragraph 5)
- ▶ This raises an important question on how a CP may be able to rely on contributions from experts who are not members of the AIG or AusIMM? E.g. Environmental science, hydrology, botany, cultural heritage, finance, permitting, government relations, community relations, ESG etc.

# Opaque and Ineffective Disciplinary Processes

- ▶ ASIC considers the existing competency evaluation criteria set out in the Code to be of such a subjective nature that enforcement is impractical in all but extreme cases.
- ▶ Under the existing complaints-based framework, ASIC have identified that issues relating to the judgement by the practitioner of their own competence are seldom reported as the basis for sanctions.
- ▶ ASIC has reservations that the current disciplinary framework and guidelines will ensure best practice from practitioners.
- ▶ Bottom line: the existing disciplinary process is not seen as functioning and is not acting as an effective deterrent to poor professional practice.

# Variations in the Quality of Public Reports

(especially with respect to Mineral Resources and Ore Reserves)

- ▶ The result of the existing framework which relies on self-assessed competency and voluntary complaints-based oversight of practitioners is that mineral resource and reserve estimates reported in the market are of significantly varying quality.
- ▶ For assets of similar size and stage of progress we may encounter estimates which have been subject to development and review of a team of consulting engineers, geologists, environmental scientists, business analysts, metallurgists and other professionals. In other cases, estimates may be the result of a single in-house or consulting geologist.
- ▶ Limited oversight and self-assessed competency for practitioners results in reports and statements prepared in accordance with the Code being of varying quality and in some cases being unreliable and incomparable.
- ▶ Although flexibility for interpretation of competency under the Code may be efficient for practitioners, qualitative differences between objective estimates being reported for different projects can result in market inefficiencies that have adverse consequences for investors, particularly as projects enter development and production phases.

# Competency Contributing to Shareholder Loss

*"We have identified several instances where the root cause of investor loss has been the competence of the practitioners preparing information in accordance with the Code." - ASIC letter 4 March 2020.*

- ▶ ASIC had undertaken preliminary analyses from 2015 to 2019 that identified 58 mining and resource entities that entered administration and 25 entities which experienced loss of more than \$100 million and 50% of market capitalisation.
- ▶ Most common causes:
  - a. Reconciliation to resource and reserve grades during development and early production stages;
  - b. Underestimation of construction costs;
  - c. Higher than estimated production costs, particularly C1 costs; and
  - d. Changes to macro-factors, including access, licensing and commodity prices.
- ▶ 3 entities lost a combined \$400 million – a common attribute was poor ore grade reconciliation in the early stages of development and production.

# #1 Take-Away Message:

There is no 'do nothing' option

## #2 Take-Away Message:

Of all the areas subject to review in the JORC Code update, the issue of Competency is the most complex, not the least because it involves changes that will need to be made by the Professional Organisations and those changes will need to be endorsed by ASIC and the ASX.

We are all best served (including investors) by embracing meaningful reforms that can be agreed between ASIC, ASX, JORC, AusIMM, AIG, MCA and, not the least, members and practitioners – the very vast majority of whom want to be regarded as responsible professionals.

*Better to be at the front of the parade and having some influence on the direction it takes rather than being dragged, kicking and screaming, at the back.*

So, a few cats to herd but we will all benefit from stronger sector support if investors have greater confidence in the integrity and quality of Public Reports.



# Jacqui Coombes' PhD

## Competent Persons – A Study into the Expectations and Qualifications

This will no doubt be a very poor summary, by me, of Jacqui's study – but there are some important messages that need to be heard / seen.

# Jacqui Coombes' PhD

## Competency Questionnaire

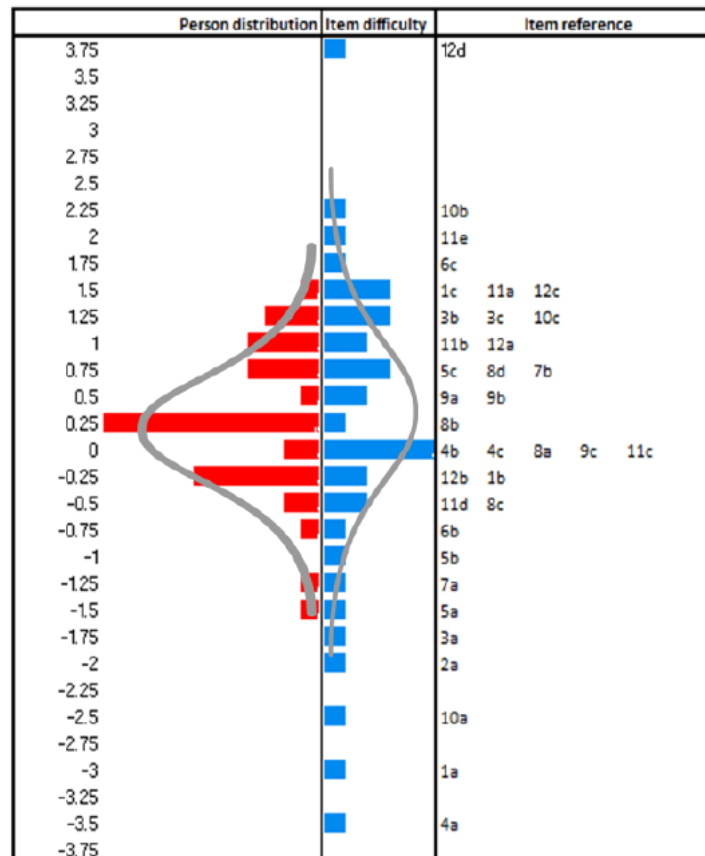
### JORC Code Reasoning Assessment

- Set of 12 questions spanning JORC Code Table 1
  - Mix of difficulty, application and reasoning
  - Rubric identifying key concepts that a reasoned “Competent Person” should identify, comment on and/or highlight or query
    - 37 items in questions that Competent Person should identify
- Online survey
  - Snowballed invitations
  - 108 invitations, 65 responses
  - Cross section of experience, roles, education and exposure to commodities
- Scoring
  - Double scored by applying rubric to individual questions in turn
- Validity
  - Founded on Statistical Reasoning evaluation mechanisms
  - Industry review – three experts reviewed the questions, rubric and results
  - Rasch Analysis – used in high stakes testing such as TEE and NAPLAN

# Jacqui Coombes' PhD

## Competency Questionnaire

### Rasch Analysis

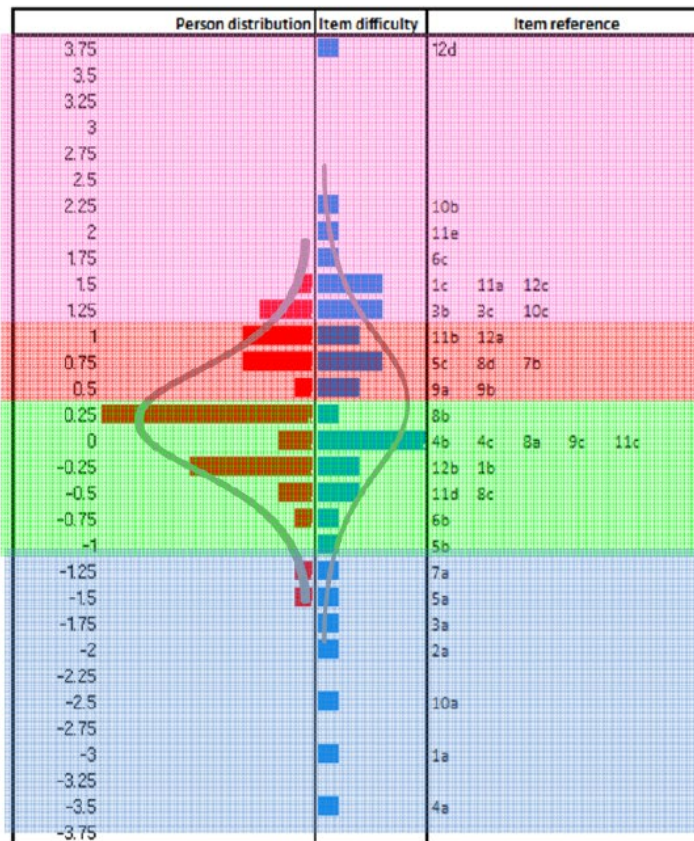


- Right Hand side:
  - Question difficulty score
- Left Hand side:
  - Person ability score

# Jacqui Coombes' PhD

## Competency Questionnaire

### Analysis of Items and Item Difficulty



Item Difficulty	Reasoning Level	Description
> 1.0	High Order Mining Reasoning	High order consideration of mining context and estimation purpose
0.3 to 1.0	Mining Context Reasoning	Connection of process to mining context
-1.0 to 0.3	Process Reasoning	Lower level linking of task to process
< -1.0	Foundation Reasoning	The basics preparation knowledge in resource estimation

# Jacqui Coombes' PhD

## Competency Questionnaire Outcomes

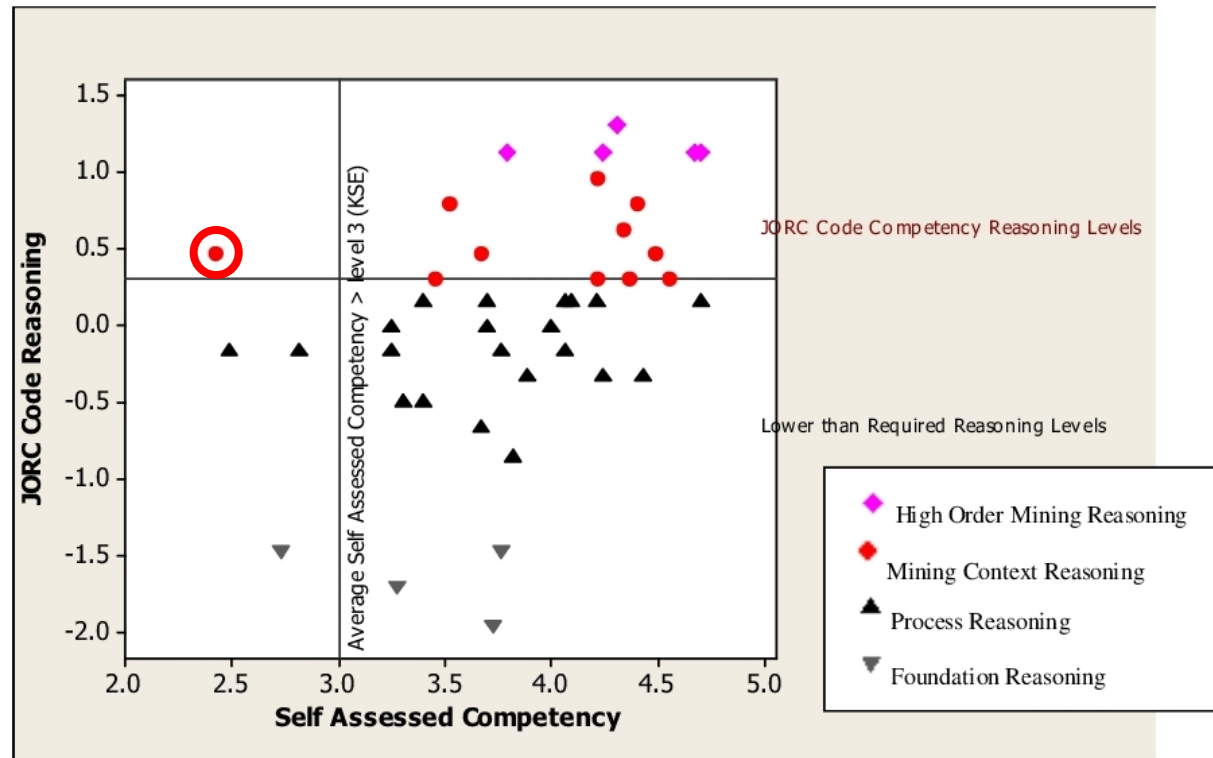


Figure 24 JORC Code Reasoning Levels Against Self-Assessment Levels

### Summary:

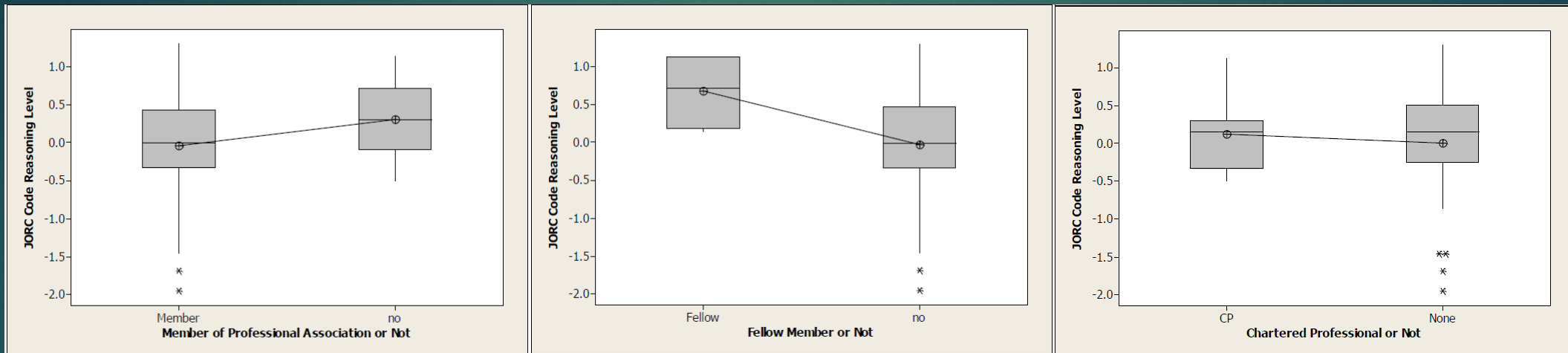
- Large majority of respondents self-assess as competent (right of the vertical line)
- Only ~50% of respondents who self-assess as competent demonstrate Mining Context Reasoning or High-order Mining Reasoning (above the horizontal line)
- One poor soul demonstrates Mining Context Reasoning but in a crisis of confidence, does not self-identify as competent (circle)

### Conclusion:

There is a very significant discrepancy between self-assessed and actual competency.

# Jacqui Coombes' PhD

## Competency Questionnaire Outcomes



Another significant observation:

- There was no statistically significant difference in resource geologist reasoning levels between Member, Fellow or Chartered Professional

# Jacqui Coombes' PhD

Recommendations:

**15 – 2 – 5**

- ▶ Must have participated in at least 15 Mineral Resource estimates
- ▶ Must have participated in Mineral Resource estimates in at least 2 different commodities
- ▶ Must have production reconciled at least 5 of their own Mineral Resource estimates

to have developed the Higher Level Reasoning to be considered 'competent' in Mineral Resource estimation.

Thank You





# The JORC 2022 Review: Progress Update

Steve Hunt

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



# JORC 2012 Code Review

## Progress Update

**Competency and the Competent Person Discussion Forum  
Brisbane and Online – 24 March 2022**



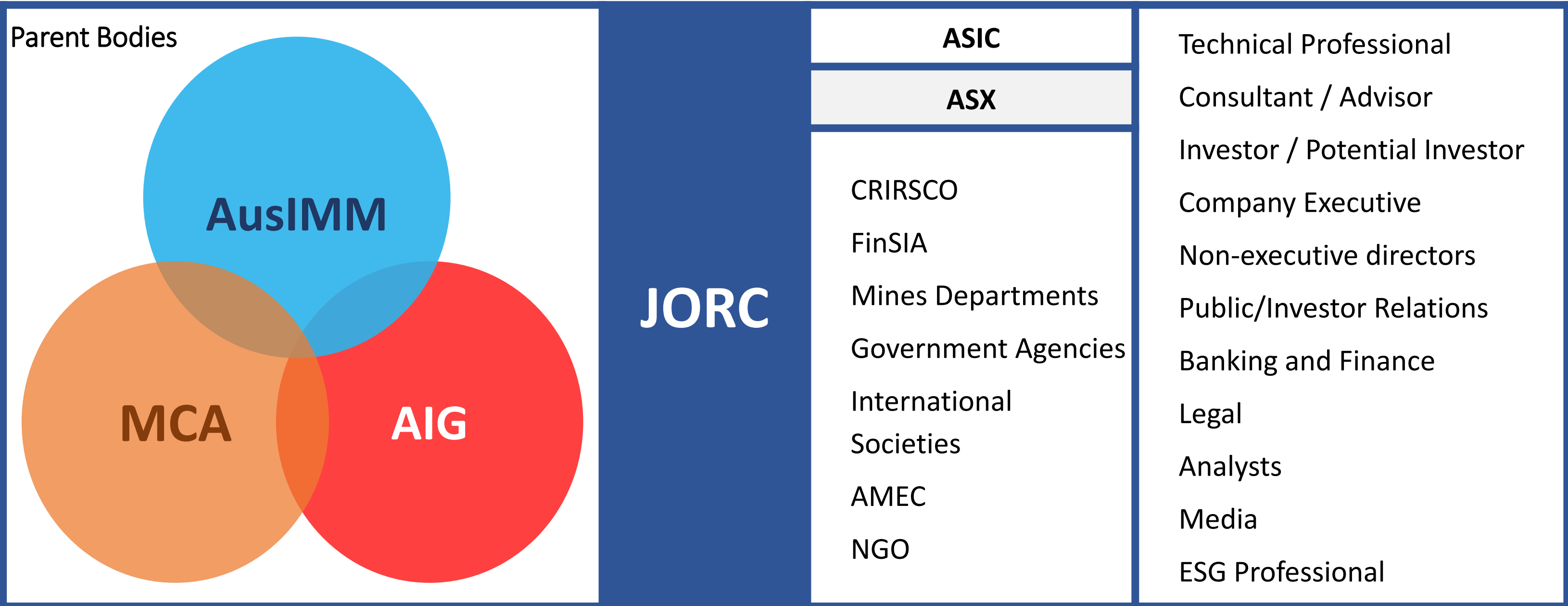
# AUSTRALASIAN JOINT ORE RESERVES COMMITTEE

JORC was established in 1971 and is sponsored by the Australasian mining industry and its professional organisations. JORC is a member of and works closely with CRIRSCO, the Committee for Mineral Reserves International Reporting Standards.

JORC comprises representatives of each of the three parent bodies:

- The Minerals Council of Australia (MCA)
- The Australasian Institute of Mining and Metallurgy (The AusIMM)
- The Australian Institute of Geoscientists (AIG)

As well as representatives of the Australian Securities Exchange (ASX), the Financial Services Institute of Australasia (FinSIA) and the accounting profession, and an observer from the Association of Mining and Exploration Companies (AMEC).

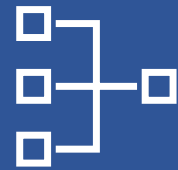


# THE JORC CODE

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code') is a professional code of practice that sets minimum standards for Public Reporting of Exploration Results, Mineral Resources and Ore Reserves.

The JORC Code is produced by the Australasian Joint Ore Reserves Committee ('JORC').

JORC has resolved to undertake a detailed review of the Code provisions and procedures, to maintain professional standards and to satisfy the ongoing governance requirements of the ASX and ASIC.



The JORC Code provides a mandatory system for the classification of Exploration Results, Mineral Resources and Ore Reserves according to the levels of confidence in geological knowledge and technical and economic considerations in Public Reports.



Public Reports prepared in accordance with the JORC Code are reports prepared for the purpose of informing investors or potential investors and their advisors.



Public reporting in accordance with the Code requires the formal signoff of a Competent Person, who is a mining professional meeting specific qualification, experience, and professional membership requirements.

# THE REVIEW PROCESS

2020

2021

2022



## PRELIMINARY ENGAGEMENT AND IDENTIFICATION OF KEY ISSUES

Stakeholder engagement and consultation activities have included general feedback provided directly and indirectly via emails, meetings, and online survey with submissions from individuals, industry bodies, companies, and organisations.

## TARGETED ENGAGEMENT AND WORKING GROUPS

A series of Working Groups (WG) will be formed to review issues / opportunities raised to date from the online survey results, industry bodies and other organisational feedback

## DRAFT OPTIONS AND REVIEW

Draft options of changes to the Code, including:

- Options of proposed changes to current wording of the Code
- Options for inclusion of proposed new sections or clauses to the Code

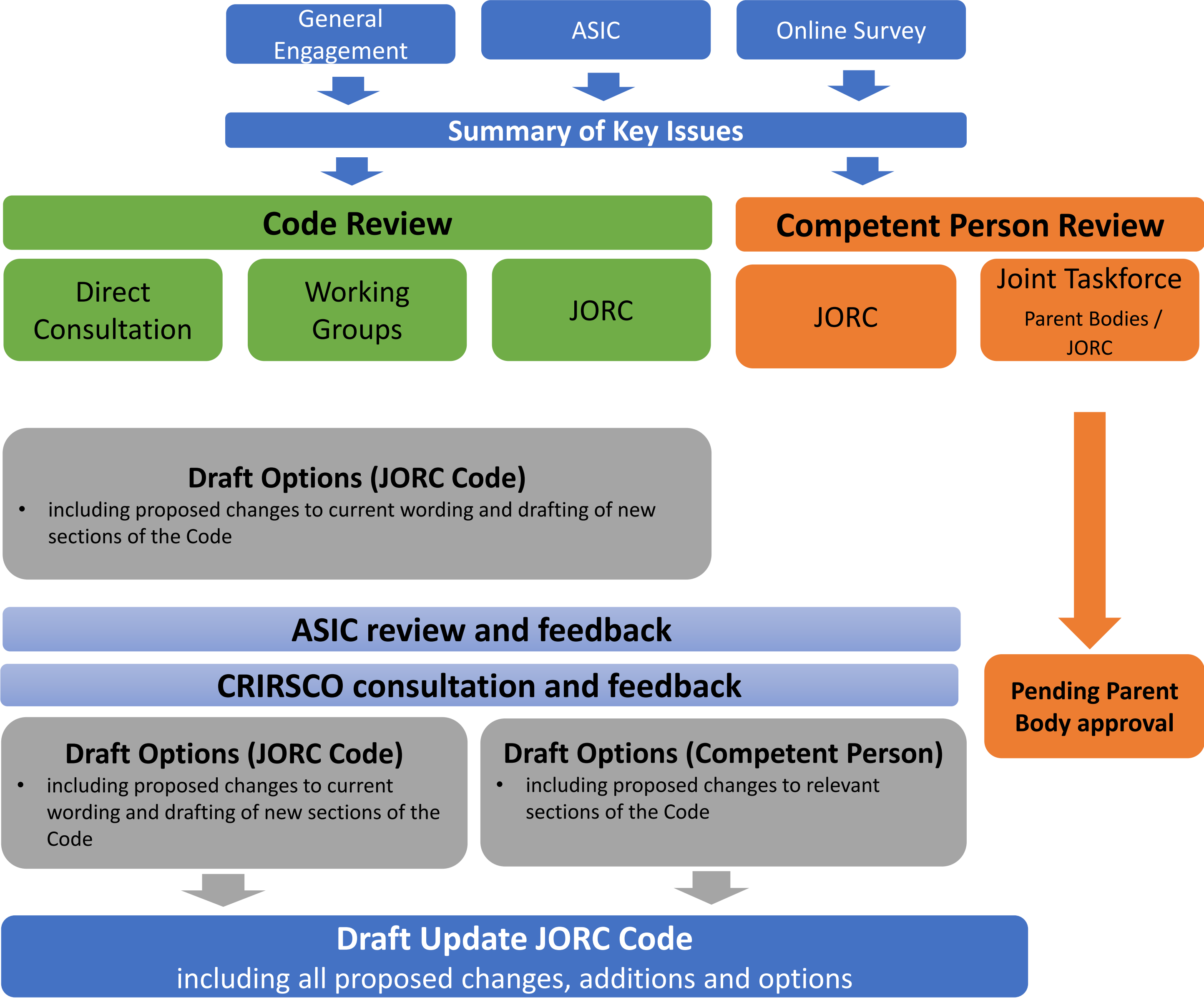
Will be circulated to key stakeholders for review and feedback.

## DRAFT UPDATED CODE, CONSULTATION AND APPROVALS

A draft interim report draft updated JORC Code will be prepared for review by Parent Bodies, ASX and ASIC. Followed by stakeholder consultation and feedback.

A final draft Code will be prepared for approval by Parent Bodies, then ASX for recommendation to ASIC for Ministerial approval.

# THRE REVIEW PROCESS - ENGAGEMENT

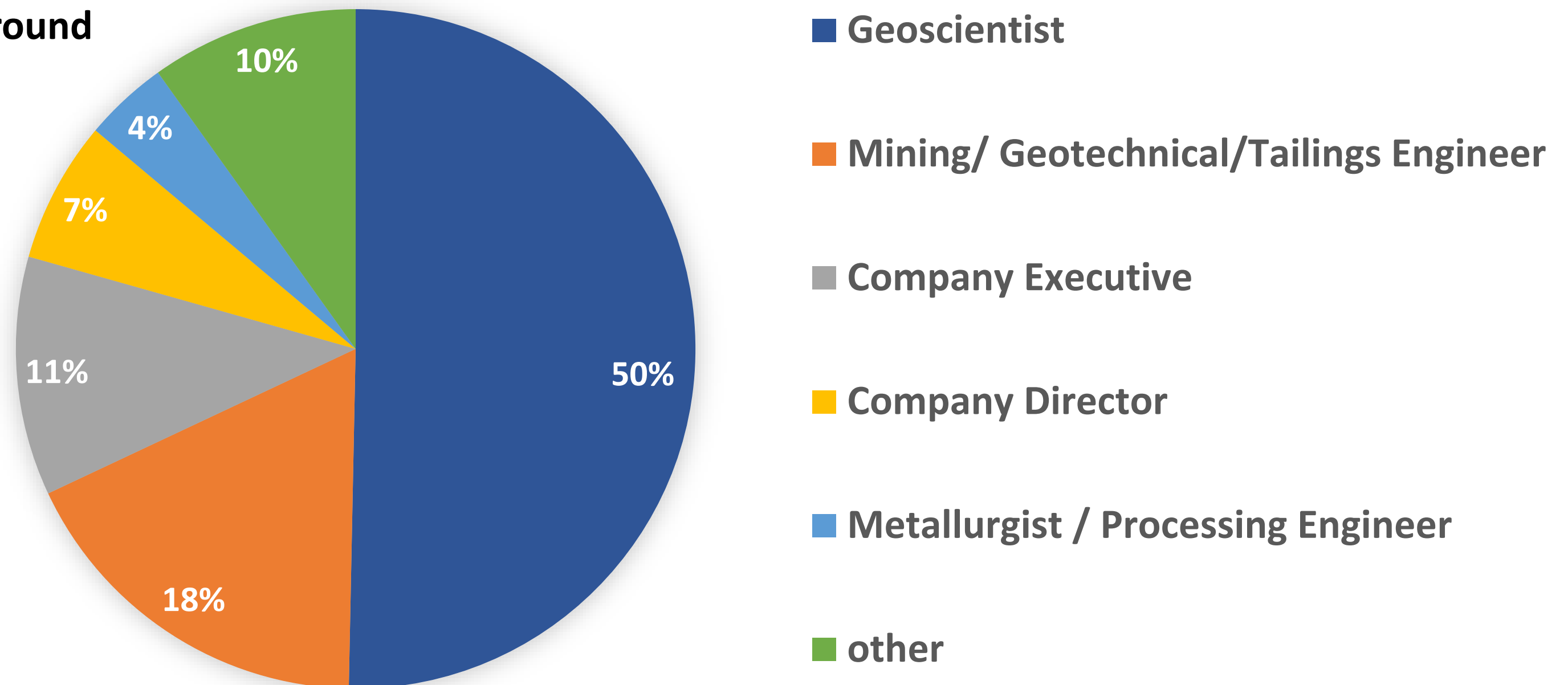


# STAKEHOLDER SURVEY

The online survey was open to all stakeholders during December 2020 to April 2021.

A total of >500 survey submissions were received with submissions from individuals, industry bodies, companies, and organisations.

## Primary Background

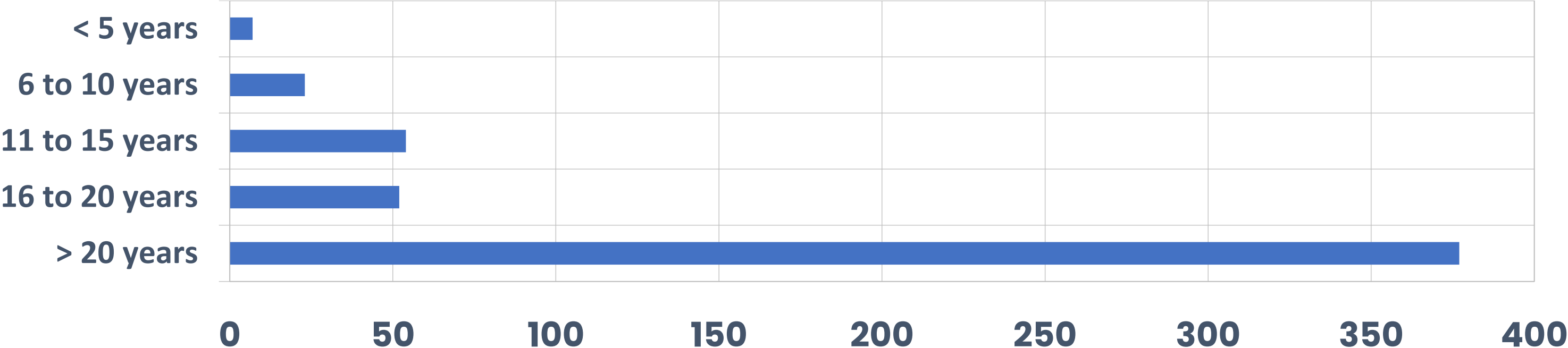


Survey analytics conducted included response grouping and ranking by priority areas based on a combination of factors including number of respondents, detail of responses, similarity or opposition of opinion and potential future implications and considerations.

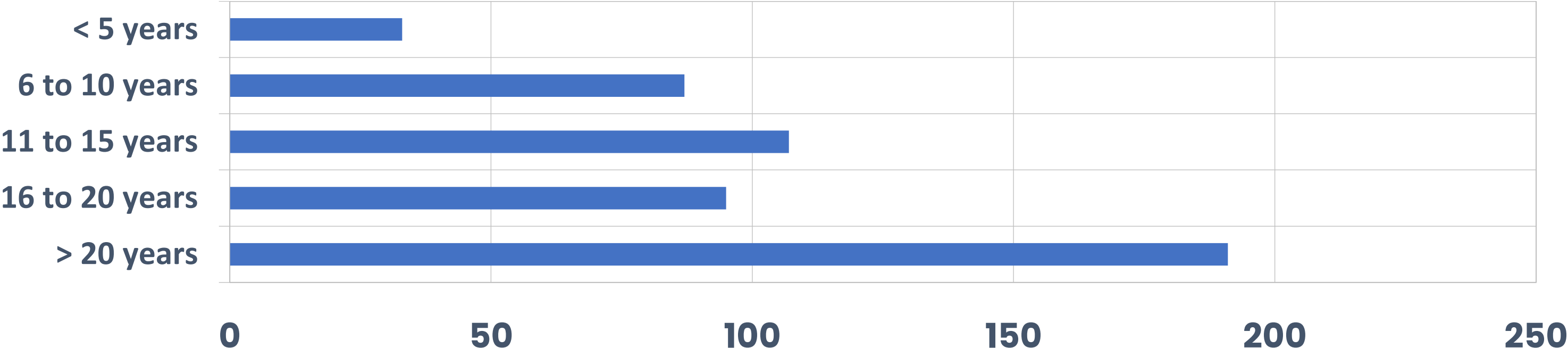
# RESPONDENT EXPERIENCE

The survey highlighted the extensive experience held by most respondents, with over 370 respondents (73%) having more than 20 years' minerals industry experience, and comparably this group responded as having the most exposure to the Code.

## Minerals Industry Experience



## Exposure to the Code

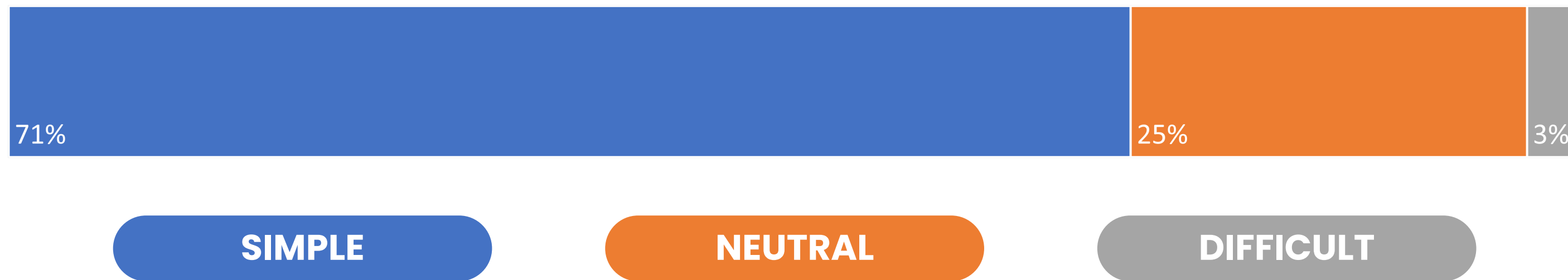




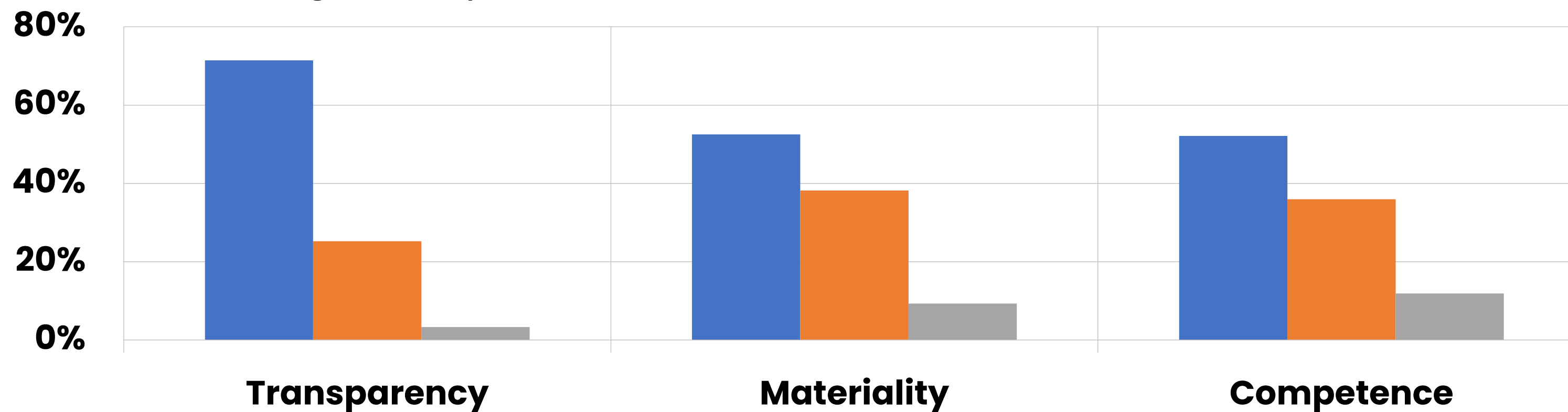
# UNDERSTANDING OF THE CODE

Survey response indicates that 71% of respondents felt the overall principles of the code were simple to understand, 25% were neutral on the topic and approximately 3% indicated they found understanding the Principles of the Code difficult.

Overall understanding of the Code



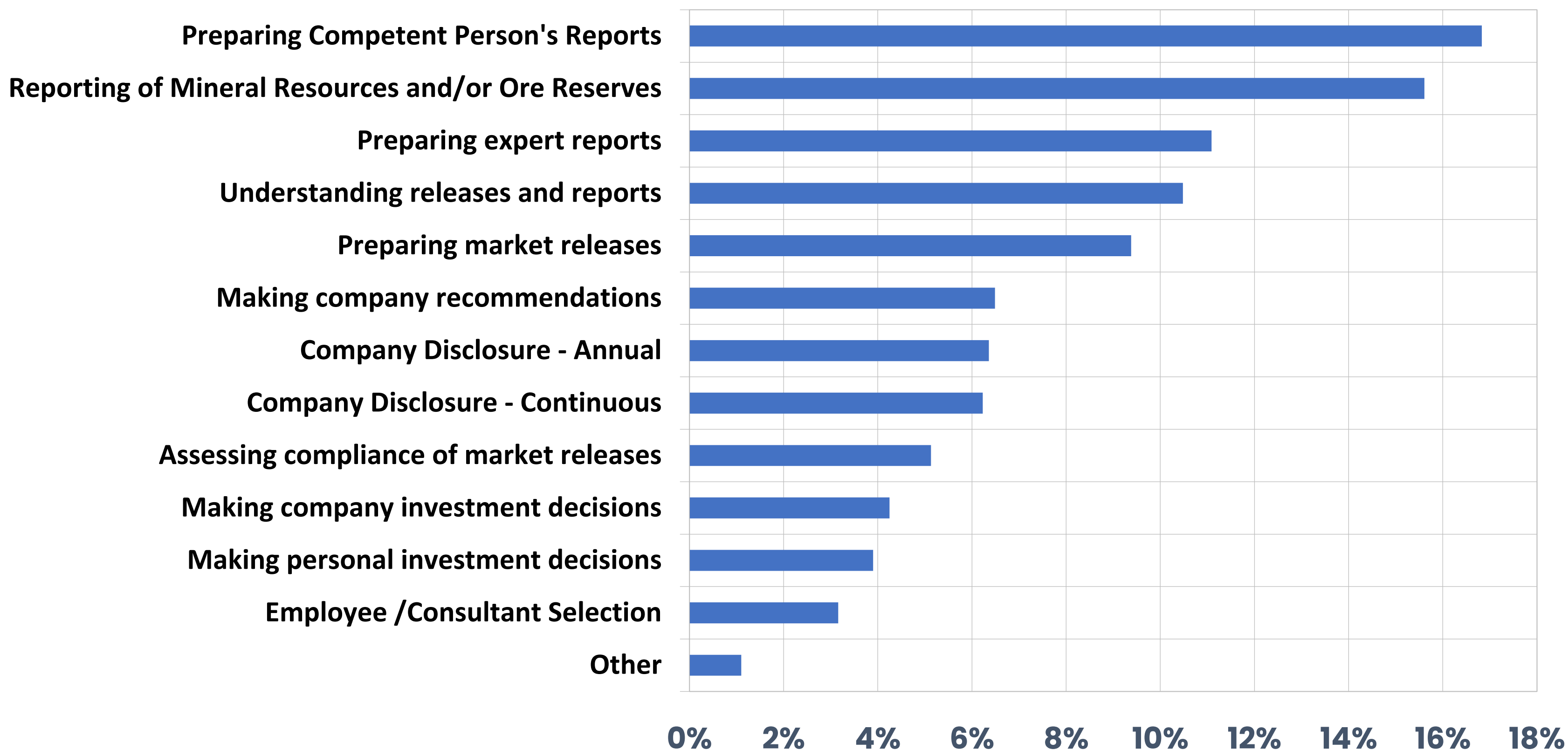
Understanding the Principles of the Code



The majority of respondents indicated each principle was simple to understand, however approximately 9% indicated Materiality was difficult, and approximately 12% that the principle of Competence was difficult.

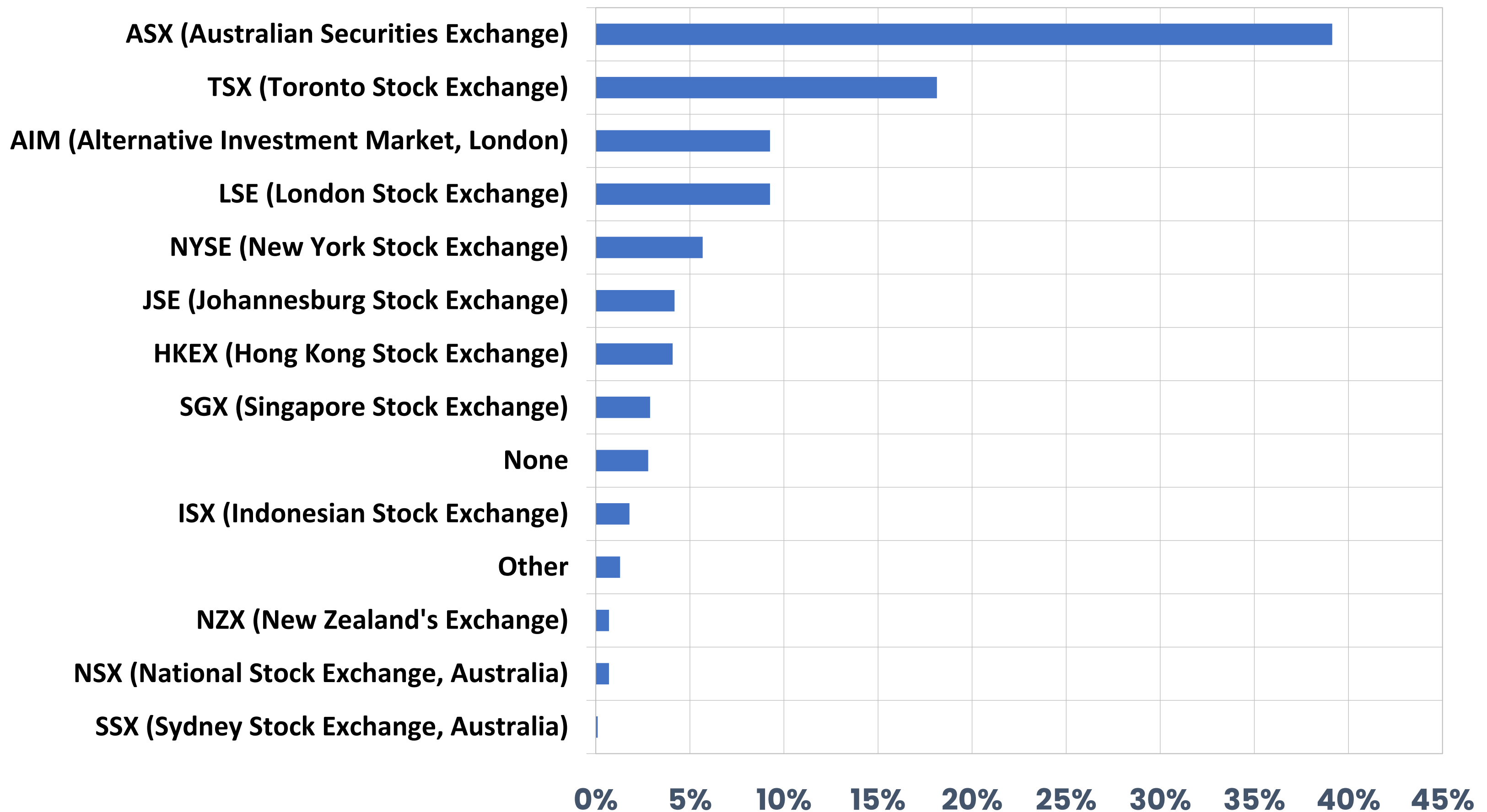
# REASONS FOR USING THE CODE

Respondents were asked to select all applicable reasons for using the code. Results demonstrate that the top three reasons for using the Code relate to preparation of Competent Person's reports, reporting of Mineral Resources and/or Ore Reserves and for preparing expert reports. This was followed by market related reasons, with 19% related to preparation and understanding of market releases and reports. Company annual and continuous disclosure returned 12% of responses.



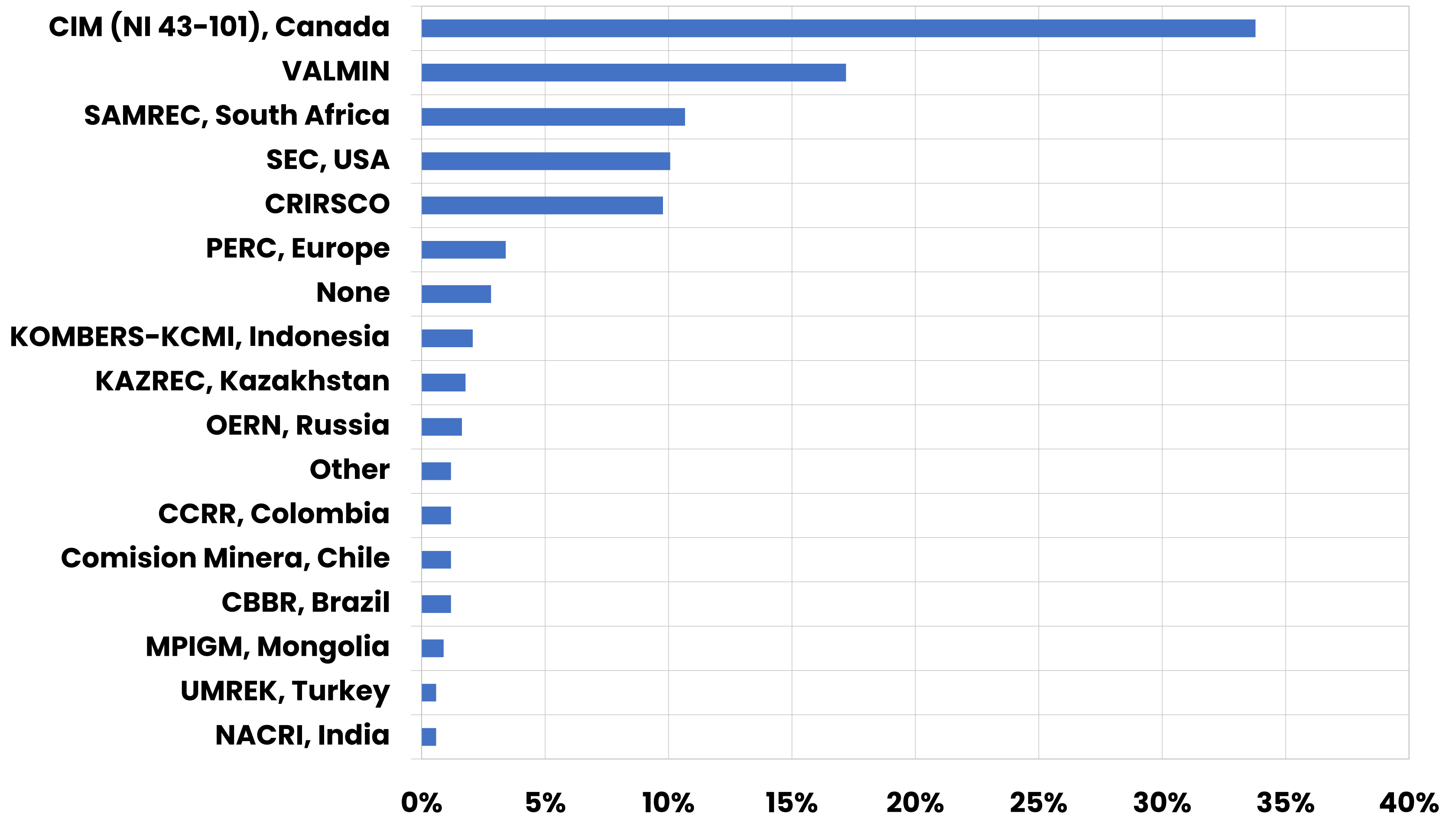
# EXCHANGES USED FOR REPORTING

Most respondents indicated they use the Australian Securities Exchange (ASX) for reporting, followed by approximately 28% of respondents using the Toronto Stock Exchange (TSX). The London Stock Exchange (LSE) and the Alternative Investment Market (AIM) returned a combined 18% of respondent use.



# CODES APPLIED

Results show that approximately 34% of respondents have applied the Canadian Institute of Mining Metallurgy and Petroleum (CIM) National Instrument 43-101 (NI 43-101). Approximately 17% respondents have applied the VALMIN code and approximately 10% have applied other codes, standards and guidelines based on the CRIRSCO template.



# KEY AREAS REVIEWED – WORKING GROUPS



## Working Groups

A series of Working Groups formed to address key issues identified.

Each Working Group:

- provided input into the development of the JORC Code review.
- Provided thoughts, options, and assistance in the review of the Code, specifically around the key area.

Competent Person

Reasonable Prospects (RPEEE)

Environmental, Social, Governance (ESG)

Reporting of Risks

Reconciliation performance

Guidance notes

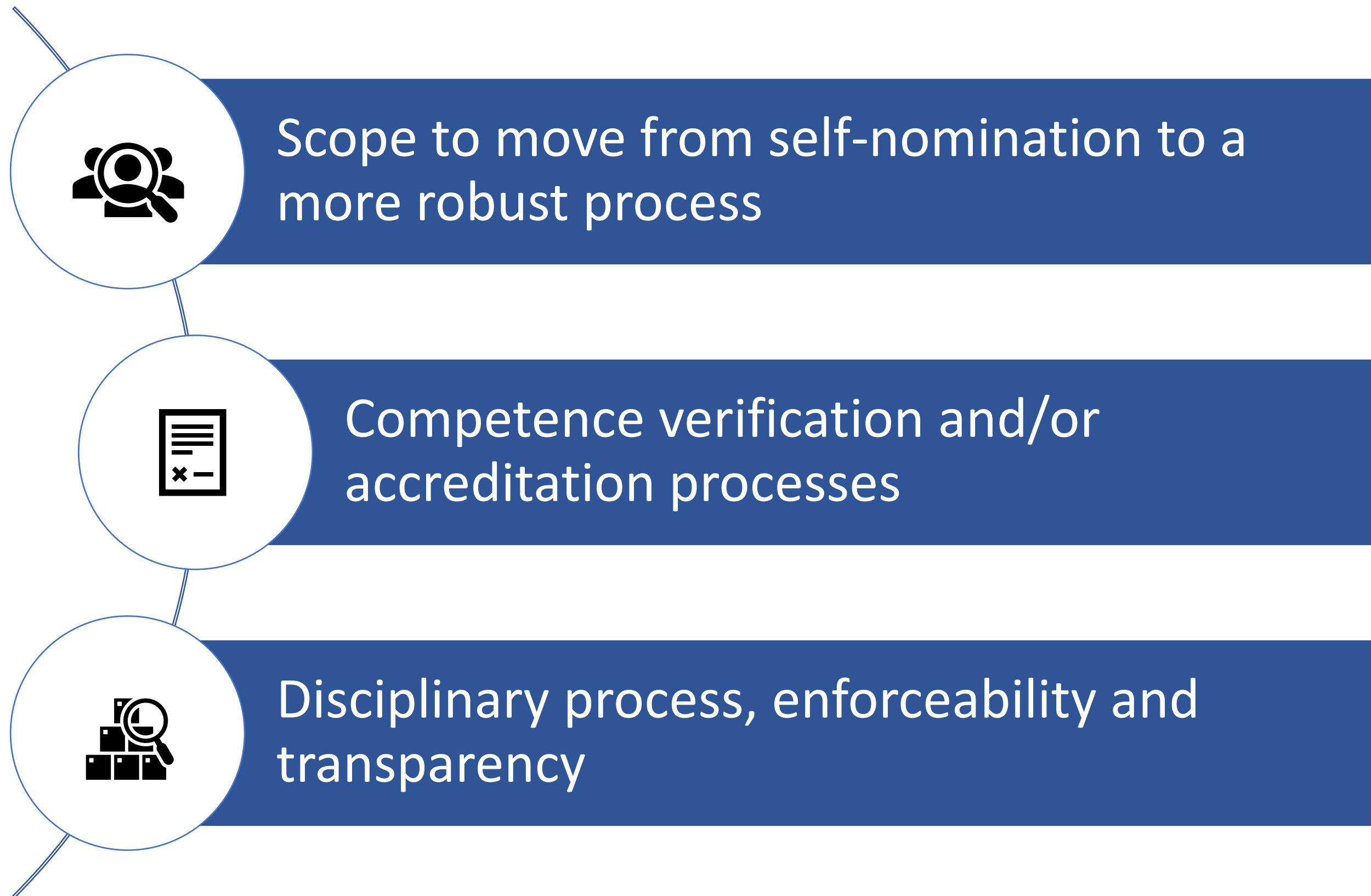
Use of JORC Code for non reporting purposes

Relationship to ASX Listing Rules and/or to other codes

Other Issues

# COMPETENCE & COMPETENT PERSON

AusIMM & AIG have formed a Joint Taskforce to review options for improving the requirements to act as a Competent Person



# JORC CODE GUIDANCE

The JORC Survey and other stakeholder feedback highlighted need for greater guidance across several areas of the Code, options to consider include:



Re-structuring of the code in a manner analogous to the ASX LR, GN and other supporting material



Requirement to better define studies (including scoping studies), and alignment of terms



The need for Investor and practitioner tailored guidance with links to relevant ASIC, ASX guidance notes, FAQs, and other references



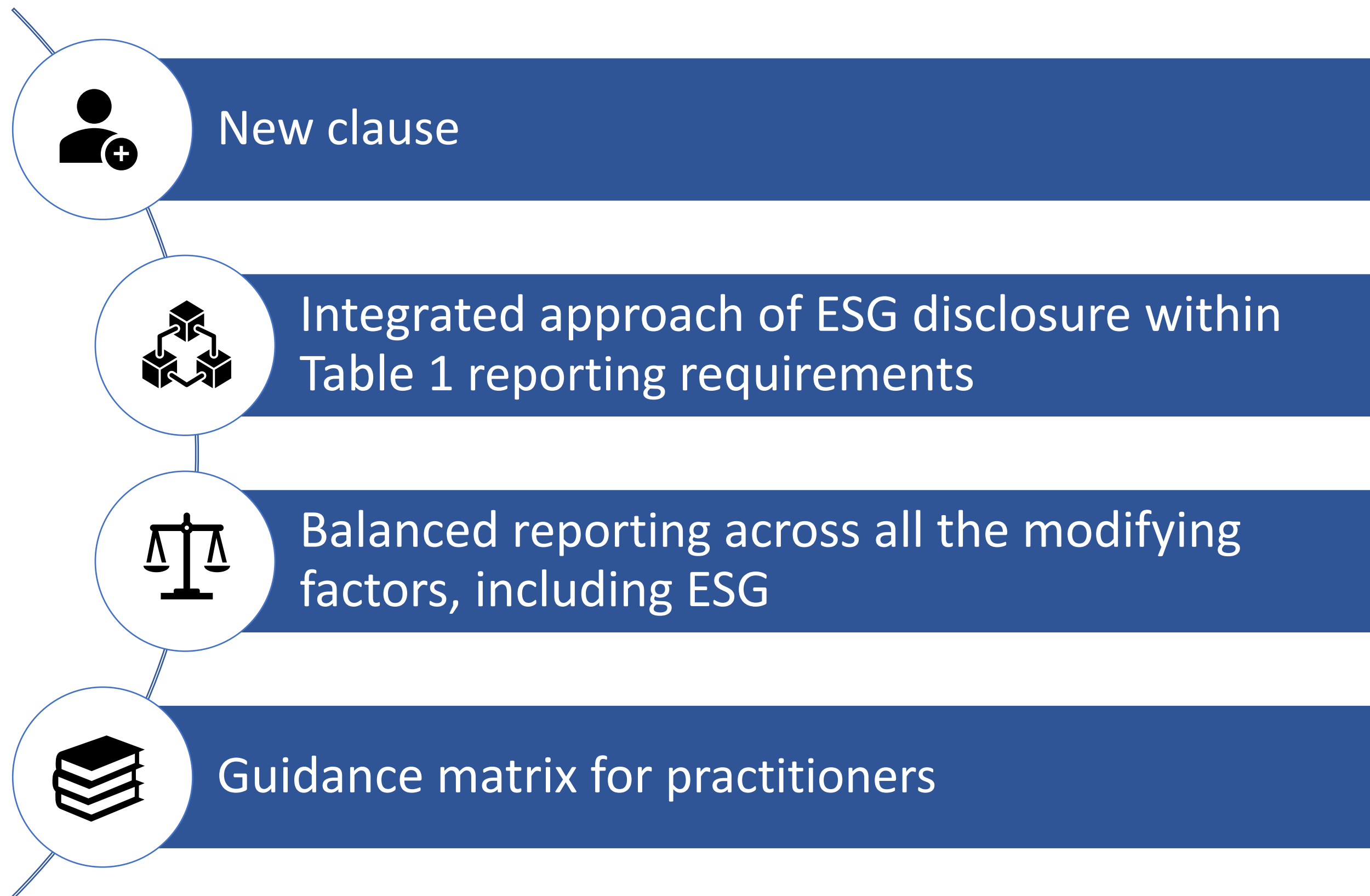
Additional principles-based external guidance by way of worked examples and links to papers or references



Potential adoption of CRIRSCO Template Table 1 and Table 2 format

# ESG

JORC Working Group completed a review of 90+ available ESG references, guides, frameworks and developed a series of options for consideration





# RISK: OPPORTUNITIES AND THREATS

JORC Working Group formed to review options for greater visibility of opportunities and threats reporting within the Code:



Requirement for the Competent Person to disclose material opportunities and threats for Exploration Targets, Mineral Resources and Ore Reserves



Options for a new table or section within Table 1 outlining disclosure criteria

# RECONCILIATION

It was recognised that the current Code was lacking in requirement to report reconciliation performance

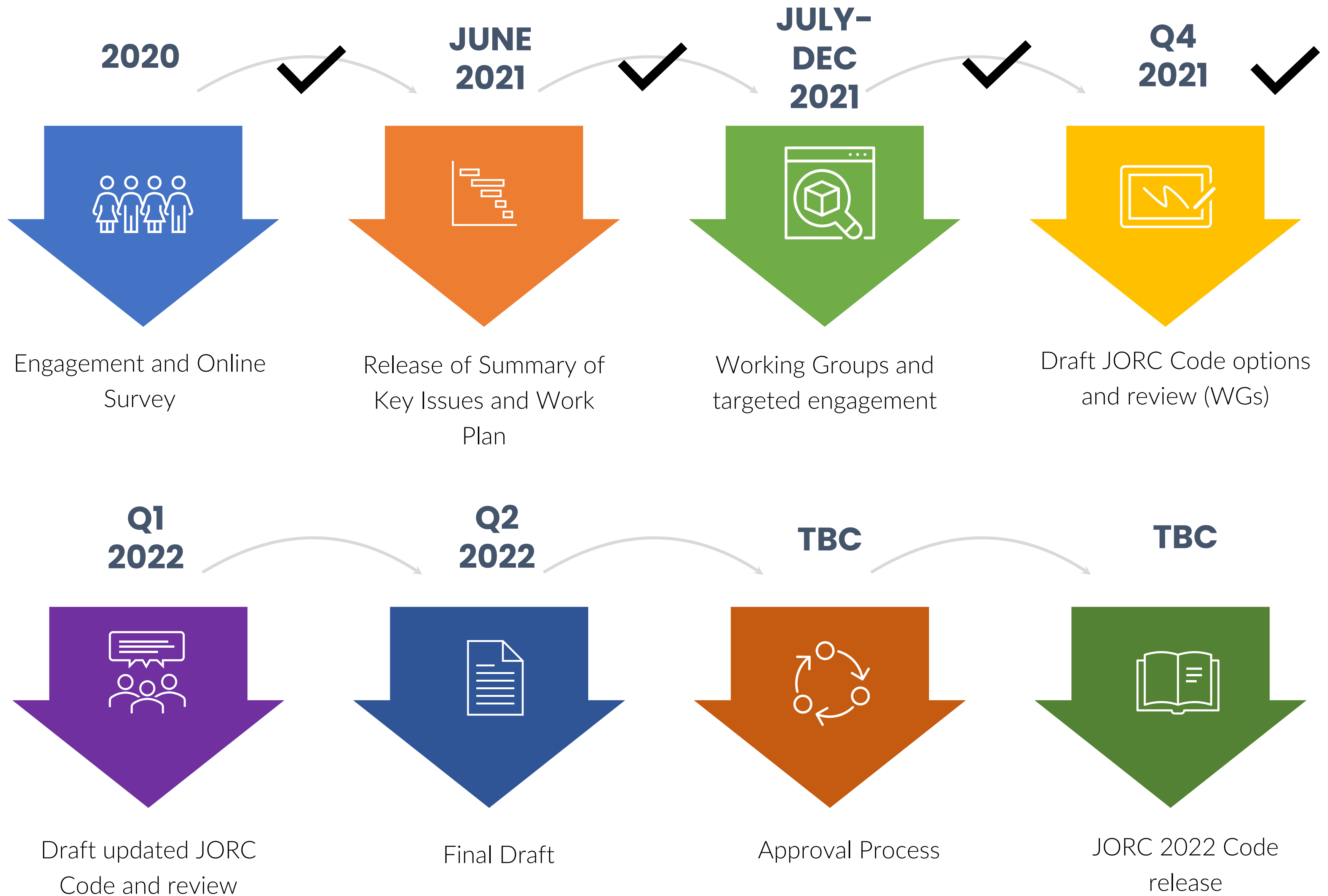
New clause recommended requiring disclosure of comparison of an estimate to a estimate, such as a Mineral Resource and/or an Ore Reserve, or alternatively, the reconciliation of the mined part of an estimate to the mine production results

External guidance recommended to improve understanding and reporting in this area

# JORC would like to thank the volunteers for their time and expertise in the Code Review Working Groups

Andre Badenhorst	Geraldine McGuire	Kirsty Sheerin
Andrew Pocock	Godknows NJowa	Leslie M Watson
Beau Nicholls	Gregory MacDonald	Marco Orunesu Preiata
Bridget Alldridge	Harald Muller	Marcus Reston
Bruce Harvey	Heath Arvidson	Mark Adams
Bruce Sommerville	Ian Glacken	Mark Berry
Chris Davis	Ian Ritchie	Mark Murphy
Clint Ward	Ioannis Kapageridis	Peter Fairfield
Craig Morley	Ivy Chen	Rebecca Jackson
Deborah Lord	Jacinta Ireland	Sam Ulrich
Douglas Corley	Jeremy Peters	Selina Zoe Broun
Dr Paul Weber	John A. Rusnak	Shauna Martin
Emily Harris	Jon Crosbie	Tatum Woodroffe
Gabrielle Kirk	Jonathan Moore	Timothy O'Sullivan
Geoffrey Booth	Jonathon Trewartha	Todd McCracken

# NEXT STEPS



# MILESTONES

Phase	Activity	Description	Timeframe
1	Preliminary discussions with Parent Bodies and other key stakeholders	Written correspondence with ASIC	2020
2	Online Survey	Individuals and Organisations	Dec 2020 – Apr 2021
3	Direct consultation	Organisations / Groups	July 2021 – Oct 2021
	Working Groups	Focussed on key issues	July 2021 – Nov 2021
	Joint Taskforce	Focussed on Competent Person	From mid Oct2021
4	ASIC Consultation	Update of key areas under review	Meeting held 7/12/21
5	Draft Options JORC code	Including options for changes	Dec 2021 (v1 released to JORC) March 2022 (v2 release to JORC)
	Draft Options Competent Person	Joint Taskforce/ Working Group	Engagement process
6	Draft Update JORC Code & Competent Person	Including proposed options of changes	TBC post Baseline Study and engagement
7	Draft revised Code	Engagement with Parent Bodies, CRIRSCO, ASIC, ASX	Q2 2022
		Engagement with industry stakeholders draft code document	Q3 2022
8	Final Draft	Final update draft for approval	2022 TBC

# STAY INFORMED

## Code Update Contact:

Project Manager – JORC Review

[update@jorc.org](mailto:update@jorc.org)



<http://www.jorc.org>



<https://www.linkedin.com/company/australasian-joint-ore-reserves-committee>



# Competence in Other Jurisdictions

Andrew Waltho



# Competence and Competent Persons

Competence Baseline Study: February – March 2022

Andrew Waltho

*Andrew Waltho Consulting Pty Ltd: [www.geoscientist.com.au](http://www.geoscientist.com.au)*

AusIMM-AIG Competent Person Discussion Forum,  
Brisbane, 24 March 2022



# Competent Person Baseline Study

- A baseline study to examine issues relating to competence and Competent Persons, as defined by the JORC Code, was commissioned in January 2022.
- The study will support the work of a joint AIG-AusIMM taskforce established to support the JORC Committee during the code update currently in progress.
- The study is entering its final phase, with preparation of the study report at an advanced stage. Today's forum is expected to generate additional inputs that will be considered by the study authors.



# Competent Person Baseline Study Team

Study Authors:

- Andrew Waltho FAIG RPGeo FAusIMM
- Peter Stoker OAM FAusIMM
- Paul Teniere PGeo

The study team acknowledges and appreciates the support of Jaime Livesey, JORC Update Project Manager



# JORC Code Application

- The JORC Code is a standard for **public reporting** of Exploration Results, Minerals Resources and Ore Reserves
- It is **NOT** a standard for the preparation of Mineral Resource or Ore Reserve estimates
- Compliance with the Code is mandatory for AusIMM and AIG members, and members of Recognised Overseas Professional Organisations (RPO)
- **Principles-based Code:** Competent Persons have responsibility and discretion for the manner in which information is presented, subject to meeting requirements for mandatory inclusion of selected, specified information



# JORC Code Application

## Use of the Code is expanding:

- Public reports of Exploration Results, Mineral Resources and Ore Reserves by publicly listed companies in Australia (including ASX) and New Zealand (NZX), and a growing list of countries mainly in southeast Asia and Europe, mandated by securities exchange listing rules
- Statutory reports by exploration and mining tenement holders to the New Zealand government
- Technical support of Mining Lease applications in Western Australia
- Disclosures in compliance with the JORC Code to securities exchanges is triggered by continuous disclosure rules which consider the potential influence of new information on the value of a company's securities



# JORC Code Application

- In 2021, just under **650 professionals** accepted the responsibilities of a Competent Person in compliance with the JORC Code
  - *(one in ten AIG and AusIMM members?)*
- Almost 1775 professionals acted as Competent Persons between 2015-2021



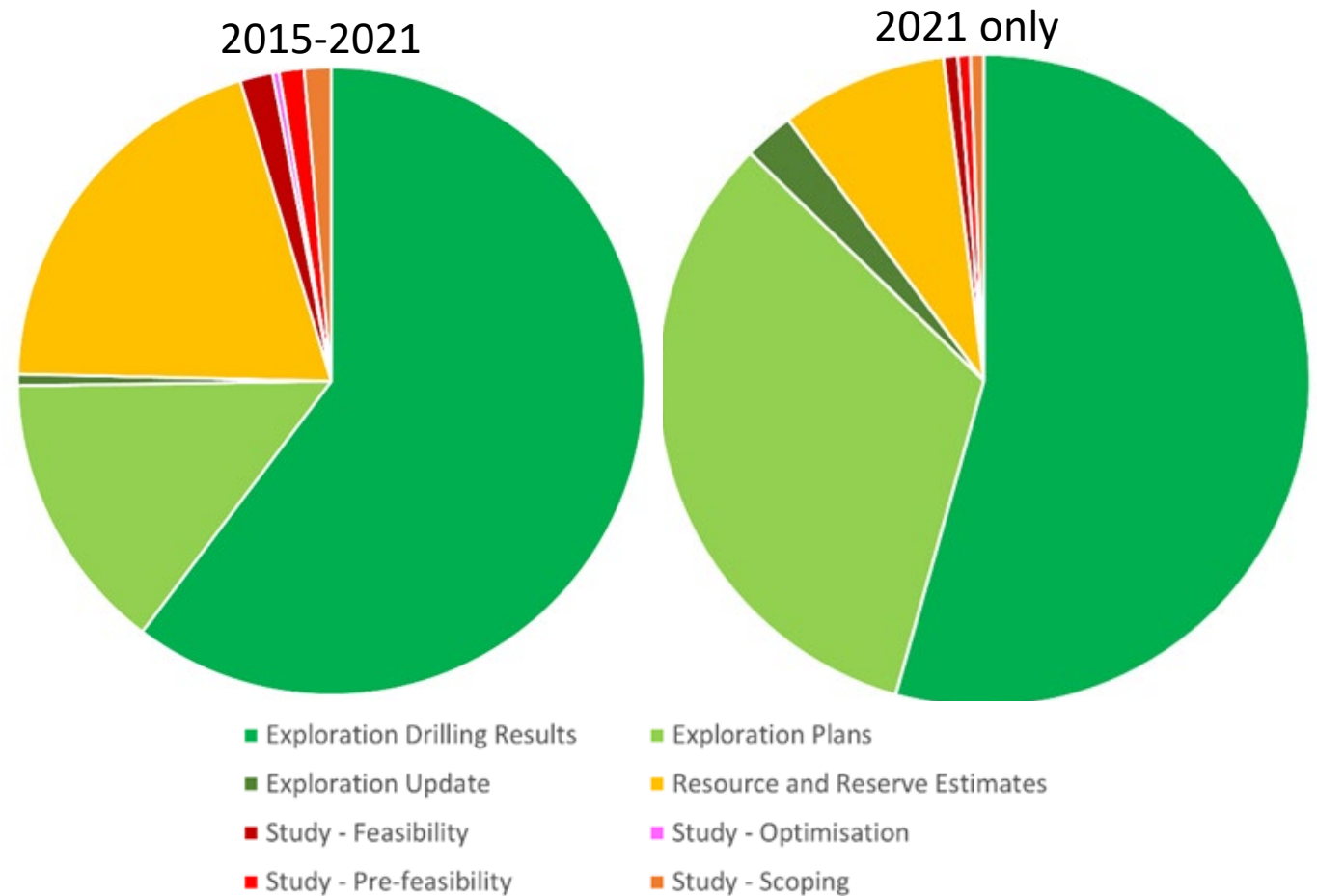
# JORC Code Application

- The number of public reports prepared in compliance with the JORC code, submitted by ASX listed companies, is growing steadily, year on year



# JORC Code Application

- JORC is overwhelmingly being used as a standard for reporting **exploration results** by ASX-listed companies:
- **75%** of all reports 2015-2021
  - Studies were the subject of 5% of reports
- **90%** of all reports in 2021
  - Studies accounted for 2% of all reports



# JORC is a member of an extended family

- **CRIRSCO\*** family reporting codes with essentially comparable features have been adopted in 14 countries/regions.
- India is the most recent addition to the family
- Philippines is in the process of joining the CRIRSCO family

CRIRSCO members as at September 2019



\*Committee for Mineral Reserves International Reporting Standards



# Competent Persons/Qualified Persons

**All CRIRSCO reporting codes embody the concept of a Competent Person (or Qualified Person in Canada):**

- Minerals industry professionals
  - **Qualified** (formal qualifications or experiential learning assessed as being equivalent by their professional association)
  - **Experienced** (minimum of 5 years relevant experience that Competent Persons agree to justify to their peers if questioned, or face sanctions by their associations' , or legal action in Canada)
  - Required to comply with a strong and enforceable **Code of Ethics**
- Professional or Competent Person Registration is required in some countries including Canada, USA, Europe, Chile and Brazil, which carries a commitment to **continued professional development (CPD)**



# Minerals Industry vs Other Professionals in Australia

## Minerals industry professionals (AIG and AusIMM members) meet the basic requirements of other Australian professions:

- Members of a professional association with mandated education and experience standards and a strong, enforceable Code of Ethics.
- Almost all Australian professions mandate a commitment to CPD. AIG promotes CPD to members, AusIMM both promotes CPD and requires members to assist others in accessing CPD opportunities. Both AIG and AusIMM offer well regarded mentoring programs.
- Professional licencing or registration is a pre-requisite to practice in a number of professions.
- Some professions mandate completion of additional education facilitated by the professional association as a pre-requisite for registration (particularly public-facing professions).
- Engineers and in some states and some finance sector professionals face, in some cases strict, statutory registration managed by government designated authorities or agencies.
- Several professions require securing professional insurances as a pre-requisite to practice.



# Minerals Industry Professionals in Australia

Where to next?

Questions?

Thank-you.



# Meeting Etiquette

## Chatham House Rule

*“When a meeting, or part thereof, is held under the **Chatham House Rule**, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.”*

- We will not be making a recording of today's Discussion Forum available for use by any participants, related parties or external bodies, with the express exception of the following purposes;
  - Collating an accurate record of the discussion whilst maintaining the anonymity of speakers and participants, for sole use as an important reference for the next steps in the JORC competency review process
  - To provide time limited access to a closed-captioned recording for the hearing impaired according to the Web Content Accessibility Guidelines to meet our obligations under Australia's Disability Discrimination Act

# Competent Person Discussion Forum

## Meeting Etiquette

- We will always remain **Respectful** of participants, their views, and their contributions to the discussion
- We welcome and **Encourage** all contributions and viewpoints, no matter how alternative or diverse they may be
- We will be succinct and clear in our contributions to allow maximum **Opportunity** for all who wish to participate
- We will behave **Professionally** and always in accordance with the respective Codes of Conduct and Ethics of our institutions

# Competent Person Discussion Forum

## Meeting Etiquette

- To facilitate the discussion, contributions from the floor will be moderated by Dale and Rene, and online contributions by Leigh
- For those online, please enter your contribution through the online chat function in GoToWebinar
- For those in the room, if you wish to make a contribution to the discussion, please raise your hand and wait until a moderator comes to you with a microphone
- The microphone is the Speaking Stick, if you are not holding the microphone please refrain from speaking or interjecting. Speaking time may be limited to allow maximum contribution from all participants