



AUSTRALASIAN JOINT ORE RESERVES COMMITTEE

JORC 202X

An update on the JORC Code Review

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Perth
13th November 2023



AusIMM



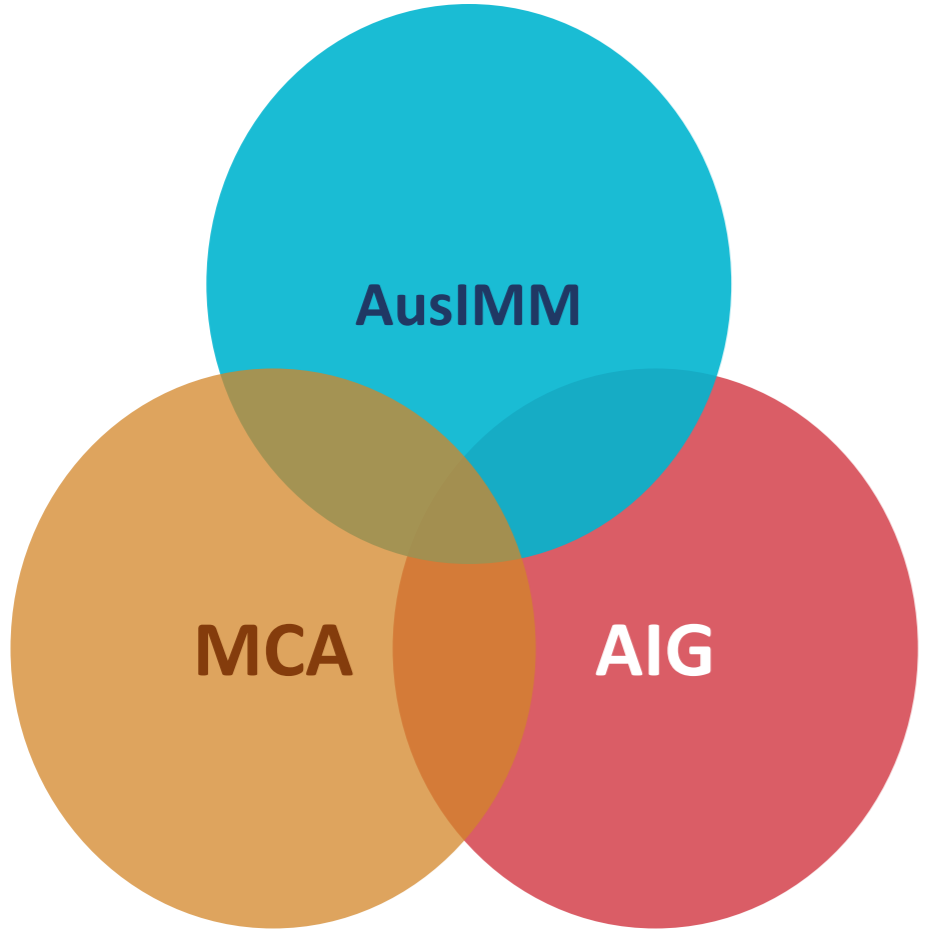
**AUSTRALIAN
INSTITUTE OF
GEOLOGISTS**

Supporting Geoscientists



JORC Stakeholders

JORC Parent Bodies



JORC

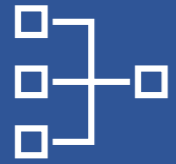
ASIC

ASX

- CRIRSCO
- FinSIA
- Mines Departments
- Government Agencies
- International Societies
- AMEC
- NGO

- Technical Professionals
- Consultants/Advisors
- (potential) Investors
- Company Executives
- Company Directors
- Public/Investor Relations
- Banking and Finance
- Legal Analysts
- Media
- ESG Professionals

THE JORC CODE



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.

Why are we having a review?

It's time

- 2012 code was introduced 12 years ago

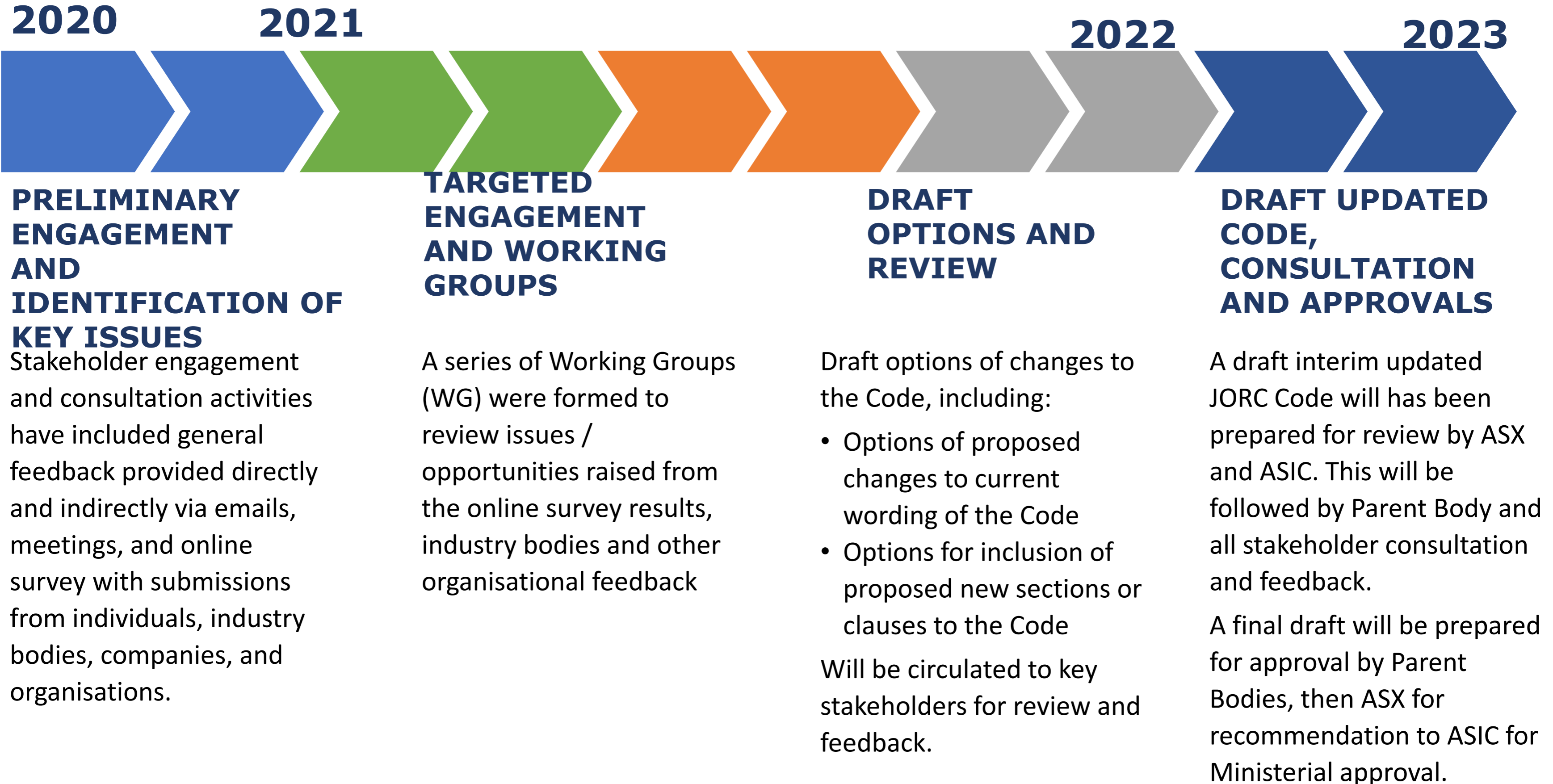
Regulator feedback

- Discussions with ASIC & ASX flagged a range of issues for consideration when the code was updated

To improve the code

- A strength of the Code has been it's evolution to address emerging issues and refine its application
- Align with CRIRSCO and international changes

The Planned Process



Stakeholder Survey

**Mining/
Geotechnical/Tailings
Engineer
18%**

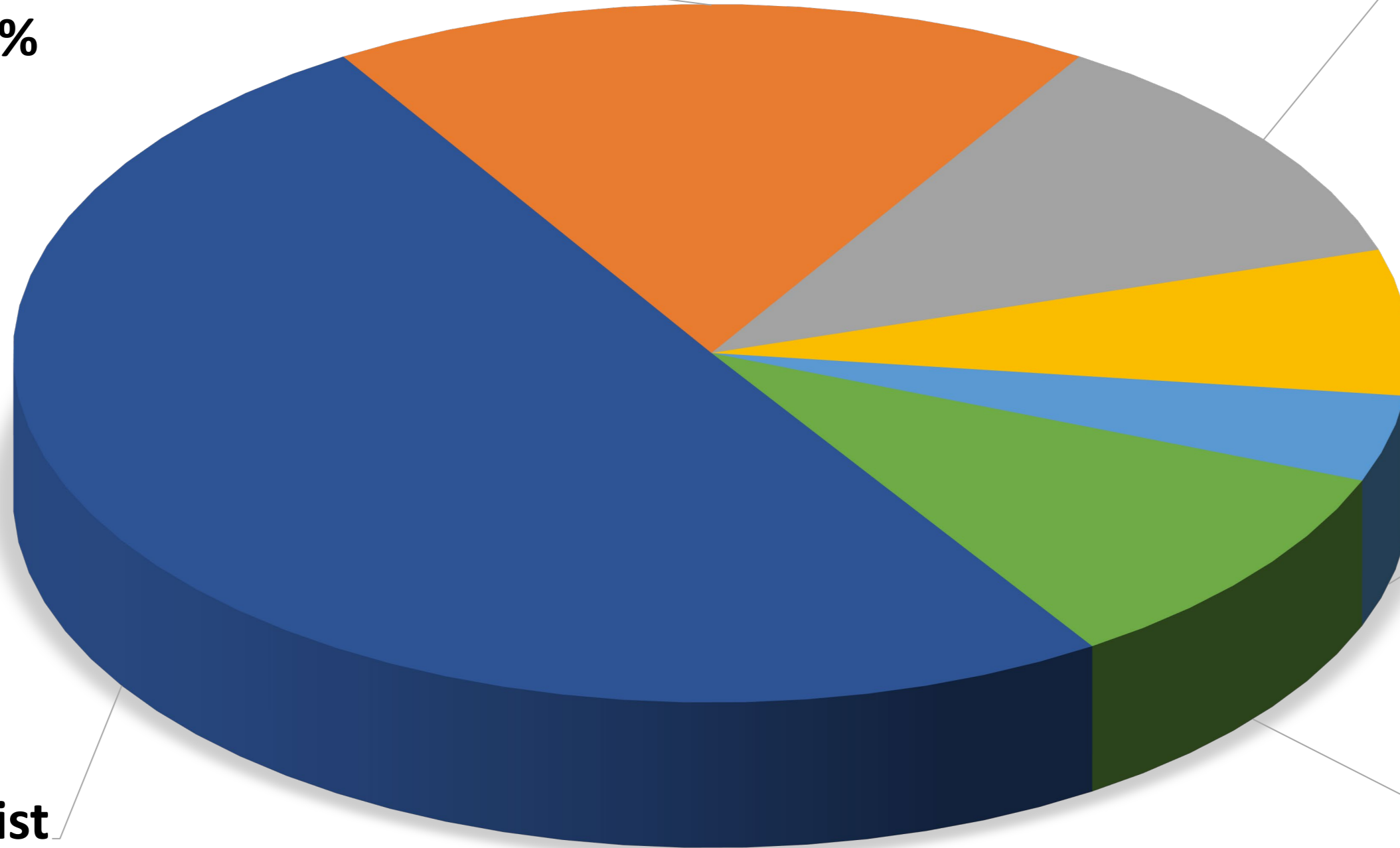
**Company
Executive
11%**

**Company Director
7%**

**Metallurgist /
Processing
Engineer
4%**

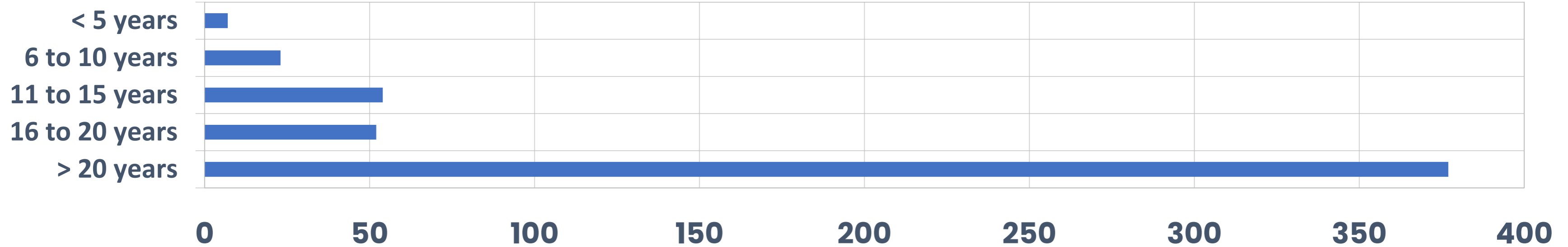
**Geoscientist
50%**

**other
10%**

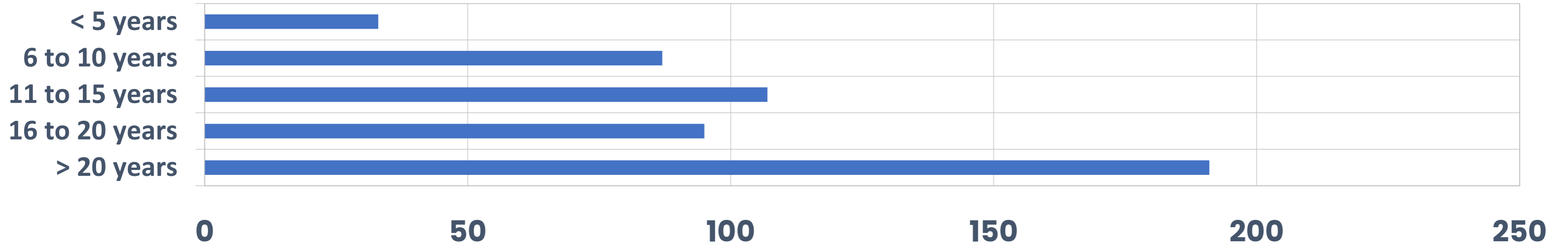


Respondent Experience

Minerals Industry Experience



Exposure to the Code



Understanding of the Code

Overall understanding of the Code

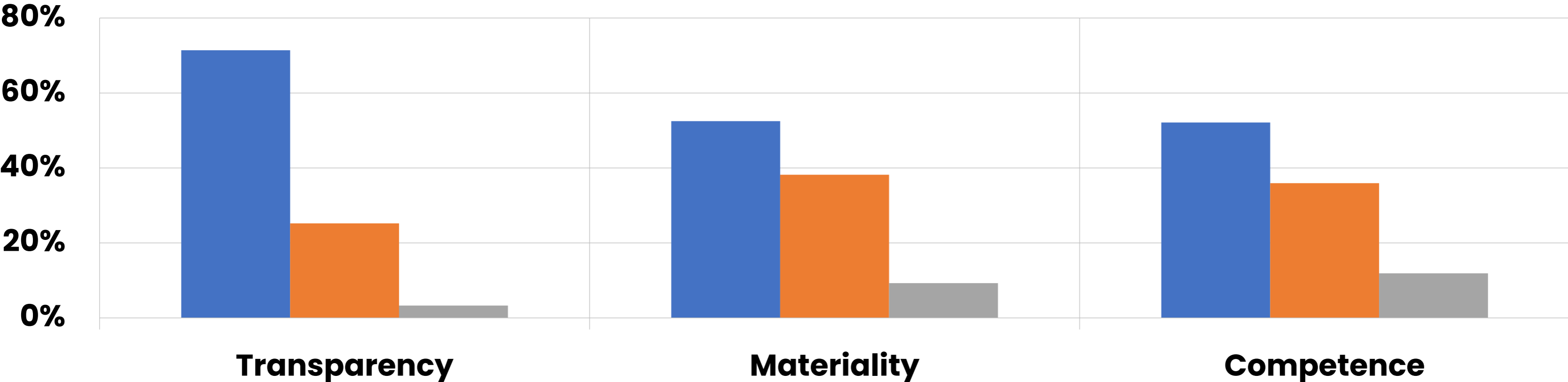


SIMPLE

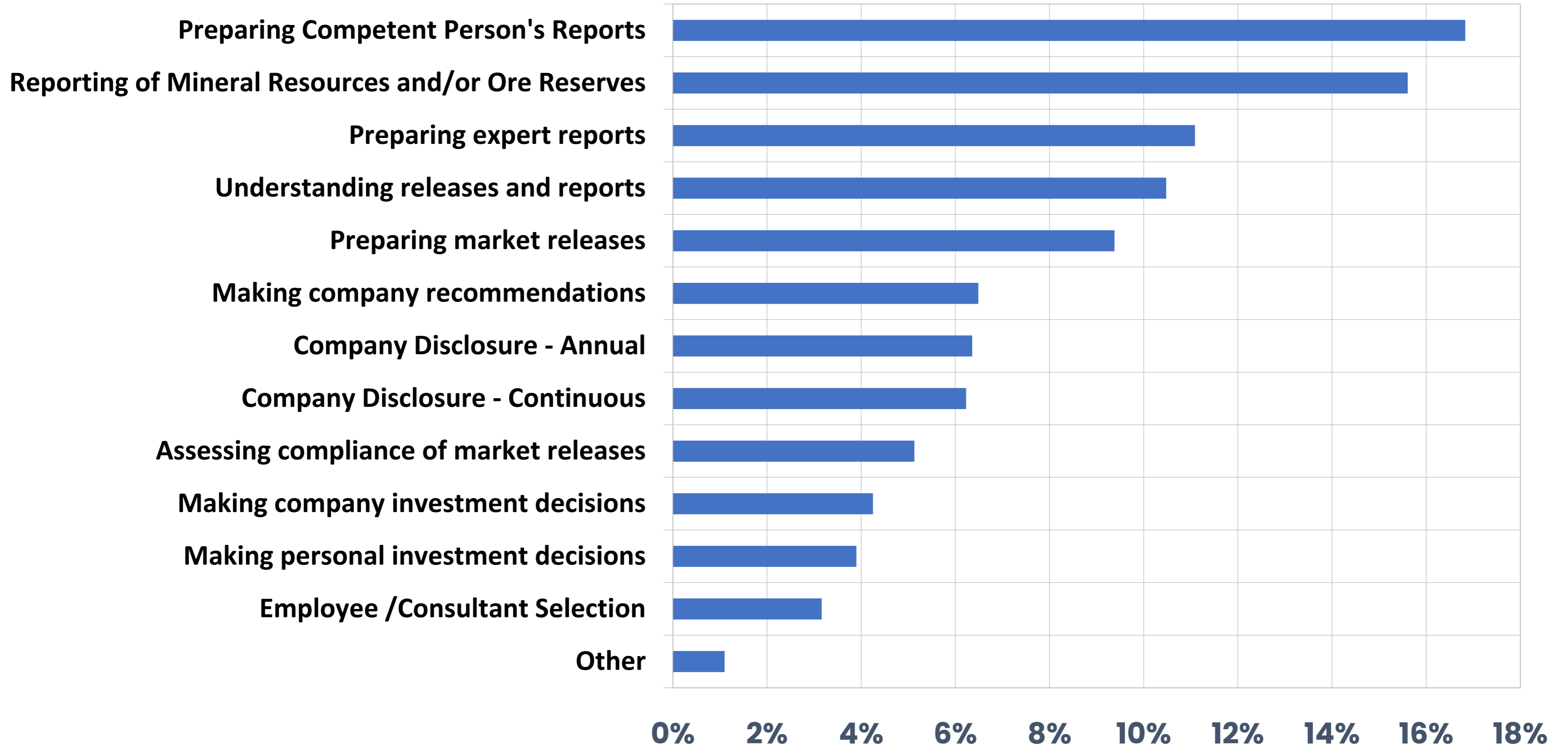
NEUTRAL

DIFFICULT

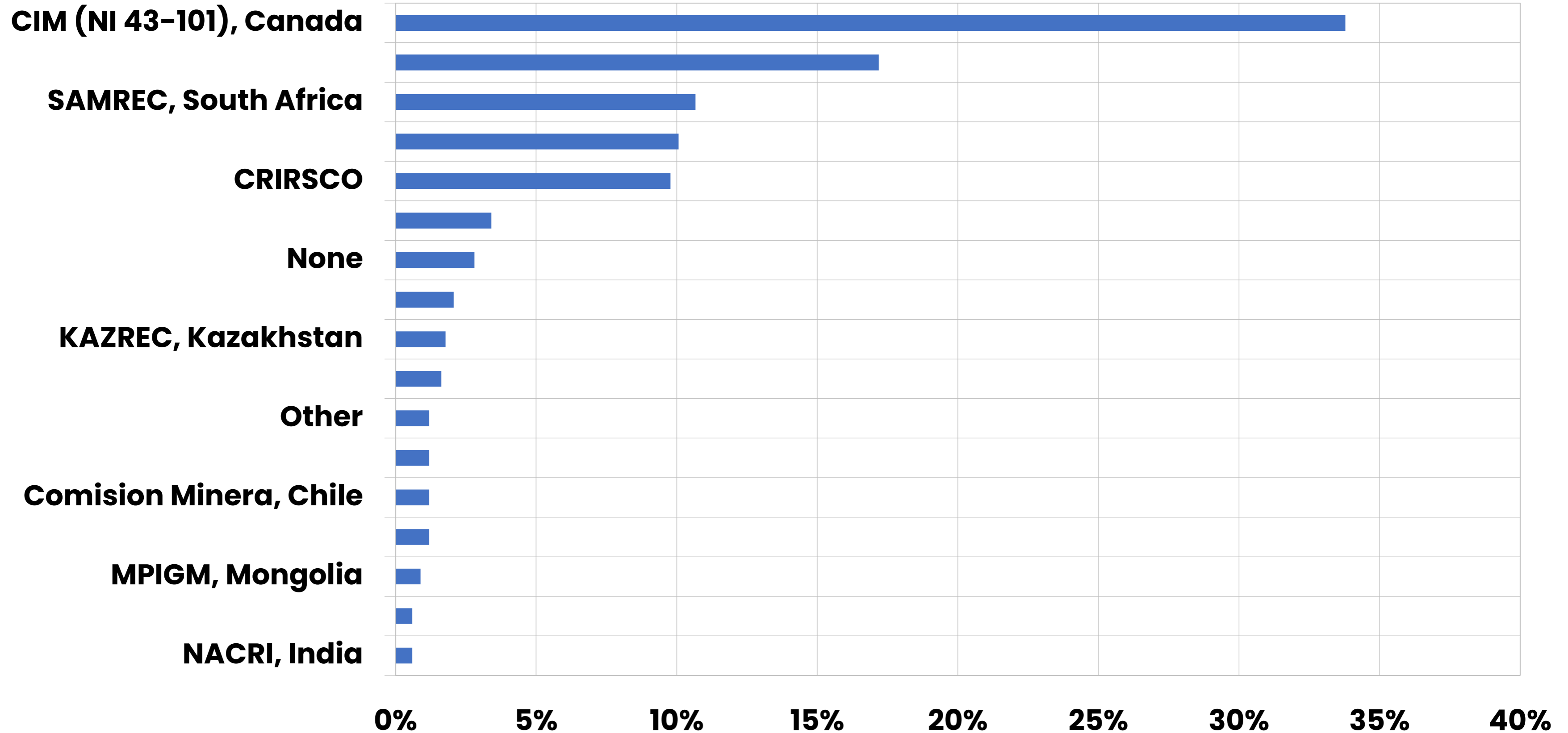
Understanding the Principles of the Code



Reasons for Using the Code



Respondents use of Reporting Codes



Topics of interest flagged by the stakeholder survey

Competent Person

Reasonable Prospects (RPEEE)

Environmental, Social, Governance (ESG)

Reporting of Risks

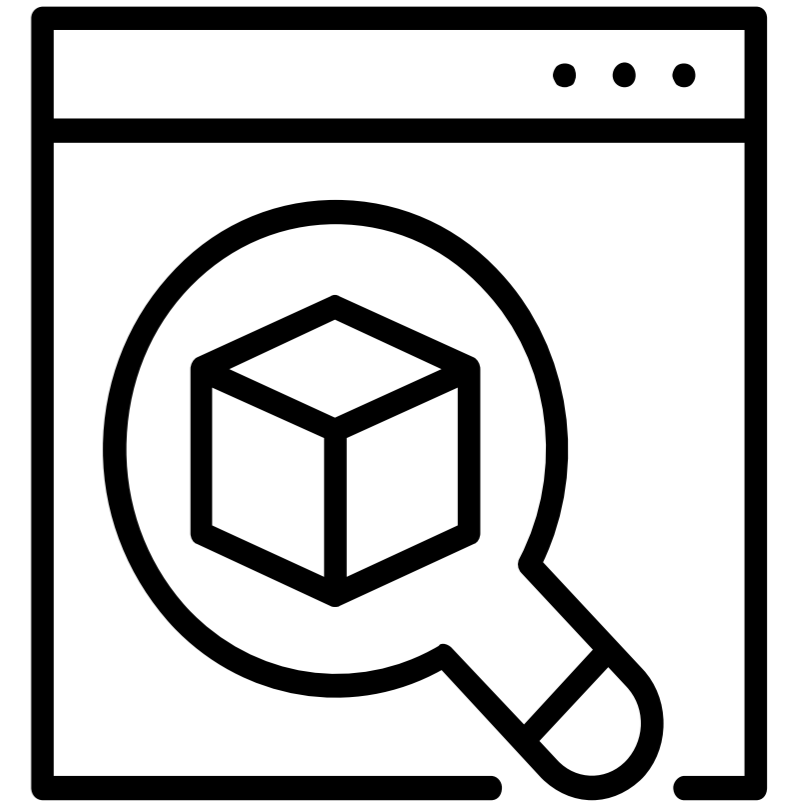
Reconciliation performance

Guidance notes

Use of JORC Code for non reporting purposes

Relationship to ASX Listing Rules and/or to other codes

Other Issues



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

Key Areas Reviewed – Notable recommendations

Structure & Format

- Reduction in embedded guidance; more comprehensive Guidance Document
- Better alignment of Code and Table 1 with CRIRSCO

Reasonable Prospects

- RPEEE vs RPEE; application of Modifying Factors throughout lifecycle
- ‘Initial Assessment’ of Modifying Factors to assess RPEE

ESG

- Addition of specific section and clauses
- Guidance Matrix of ESG related themes and impacts

Risks & Opportunities

- Addition of specific section and clauses
- Allow for project specific Risks to be disclosed and discussed

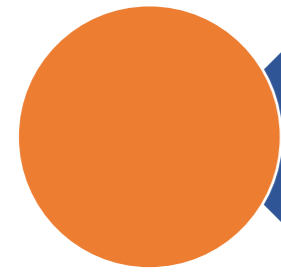
Reconciliation

- Addition of specific section and clauses
- Align with ASX Listing Rules requirement for comparisons

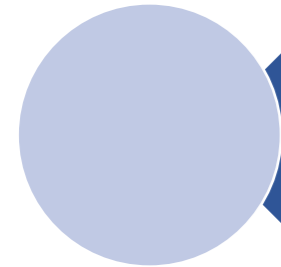
Competence & Responsibility

- Inclusion of defined term ‘Specialist’
- Clarification of Company responsibilities

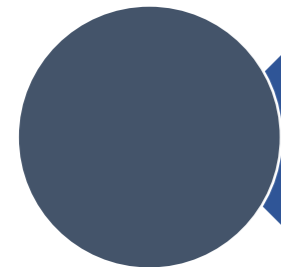
JORC Code Guidance improvements



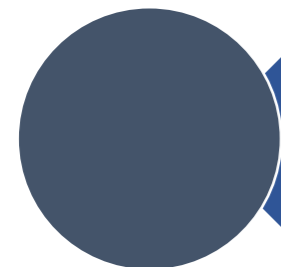
Re-structuring of the code in a manner analogous to the ASX LR, GN and other supporting material



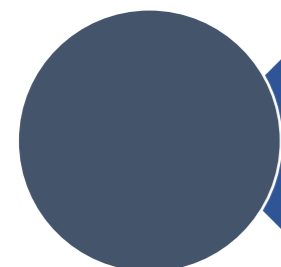
Requirement to better define studies (including scoping studies), and alignment of terms



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 with worked examples and links to papers or references. Commodity guidance layers move external to code



Potential adoption of CRIRSCO Template Table 1 and Table 2 format allowing guidance by project development stage: Exploration, Resource and Reserve

Disclosure about Reasonable Prospects for Economic Extraction

Quality and quantity of discussion of RPEE in Public Reports has been variable over the years.

Improved disclosure of Reasonable Prospects is considered desirable.

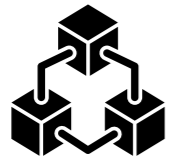
The concept of an Initial Assessment – to support and justify reasonable prospects for economic extraction is under debate.

- *An 'Initial Assessment' refers to internal company Documentation which is the consideration and appropriate assessment by a Competent Person of reasonably assumed Modifying Factors that are likely to influence the reasonable prospects of economic extraction.*
- *An Initial Assessment Documentation must be prepared by the Competent Person to justify whether all or part of the mineralisation has reasonable prospects for economic extraction.*
- *The basis for the reasonable prospects for economic extraction is always a material matter, and must be explicitly disclosed and discussed by the Competent Person within the Public Report ...*
- *The reasonable prospects disclosure must also include a discussion of the technical and economic support for the cut-off assumptions applied.*

How to deal with ESG?



New clause under review



Integrated approach of ESG disclosure within Table 1 reporting requirements



Balanced reporting across all the modifying factors, including ESG



Guidance matrix for practitioners

ESG Disclosure & Considerations

- **Add a new Clause 5 for ESG**



Material ESG considerations to be disclosed *as appropriate* to the study stage from Exploration results to Closure



Calibrated Table 1 from baseline level disclosure at exploration stage through to detailed study supported at Ore Reserves level.

Granularity aligned to study stage and materiality.

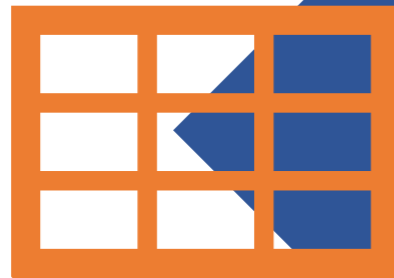


Not about applying reserve maturity data to exploration prospects, Applying available data which could be material to resource progression. Expected to reach maturity as with any all material modifying factors by Ore Reserves stage

Risk: Opportunities & Threats



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 are being evaluated



As with ESG, Risks as at the project stage being reported, not crystal ball to future stages. Expected maturity as with any material modifying factor by Ore Reserves stage

Reporting on 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

Competence & the Competent Person

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



Scope to move from self-nomination to a more robust process



Competence, area of practice verification and/or accreditation processes



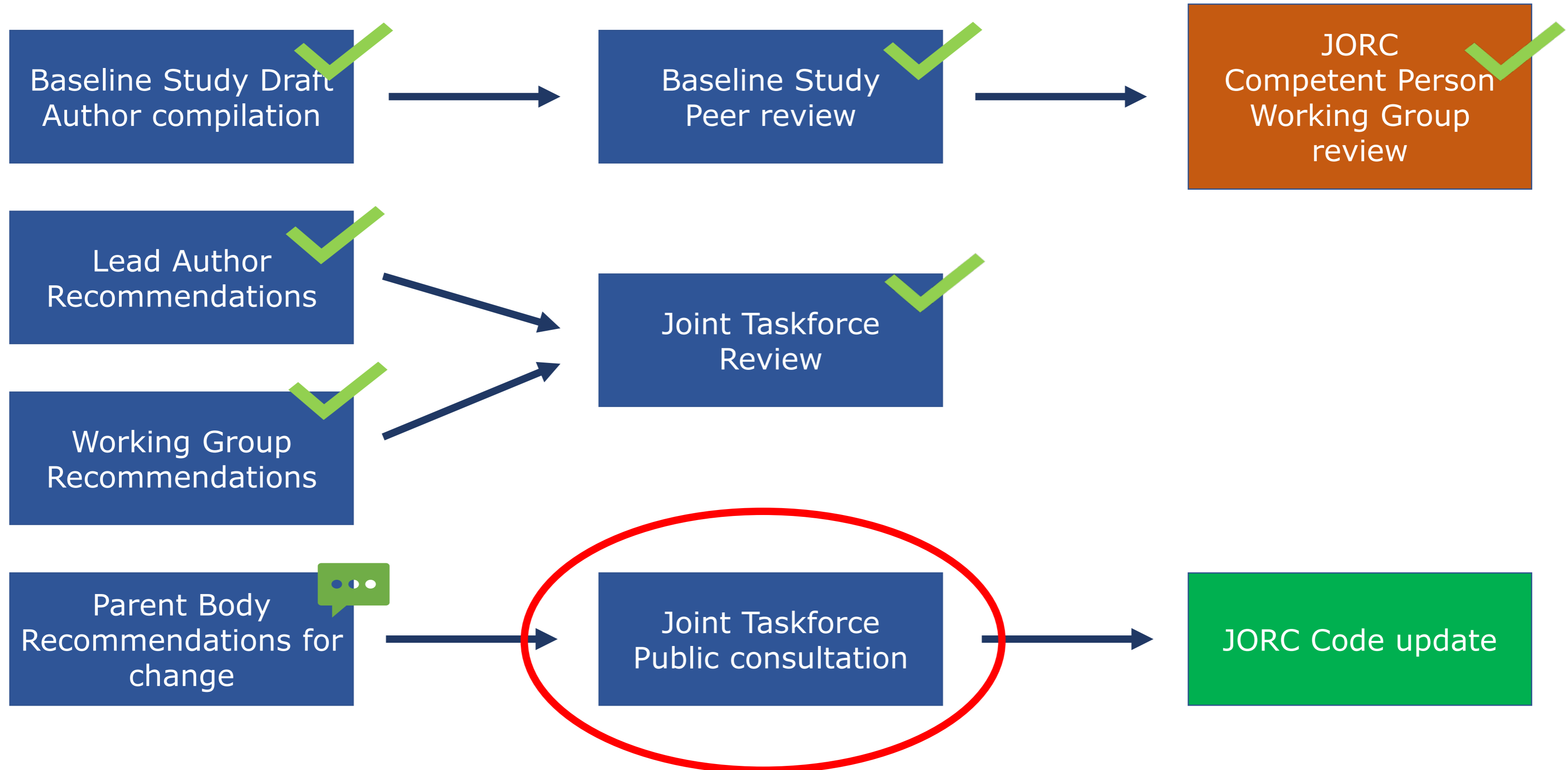
Disciplinary process, enforceability and transparency



Senior Competent Person and subsidiary technical specialist signoff model incorporated into code draft.

Competent Person Baseline Study

Study Review Process



Why the Delay?

- ❖ ASIC and ASX review of draft still in progress; interplay with listing rules and expanded scope considerations.
- ❖ The 90-day Industry and Public comment period to follow once JORC can review the regulatory feedback – no change of response process, 3 months October to December.
- ❖ Competent Person review process running in parallel.
- ❖ Second exposure draft to be shared, ahead of formalisation stages 2024.

Next phase of stakeholder engagement

Regulator Review

- First Draft shared with ASIC & ASX
- Initial ASIC feedback received
- ASX review and detailed markup complete

Organisation Review

- JORC Parents - AusIMM, AIG & MCA
- CRIRSCO

Industry & Public Feedback

- 90-day open period
- Web form or downloadable
- Survey tool to be used to managed feedback

Nature of Regulator feedback

ESG

- Discussion of how to narrow the scope to specific mining issues and Competent Person considerations

Competent Persons

- Clarification of instructions to Competent Persons versus company obligations

Concept of an Initial Assessment

- better guidance on the strictly internal nature of this type of documentation

Exploration Targets

- discussion of reasonable prospects

Complaints

- Clarification of process

Legals aspects

- ensure the consistent use of language, defined terms and concepts throughout the Code

Materiality

- Need to address the varying uses of the concept of Materiality throughout the Code

Treatment of historical results

- Potential inconsistencies between various rules & guidance

Commercially sensitive information

- Harmonisation of various rules, FAQs, and guidance

Annual Reviews

- Scope for improved disclosure and alignment of ASX Listing Rules and the code

CRIRSCO

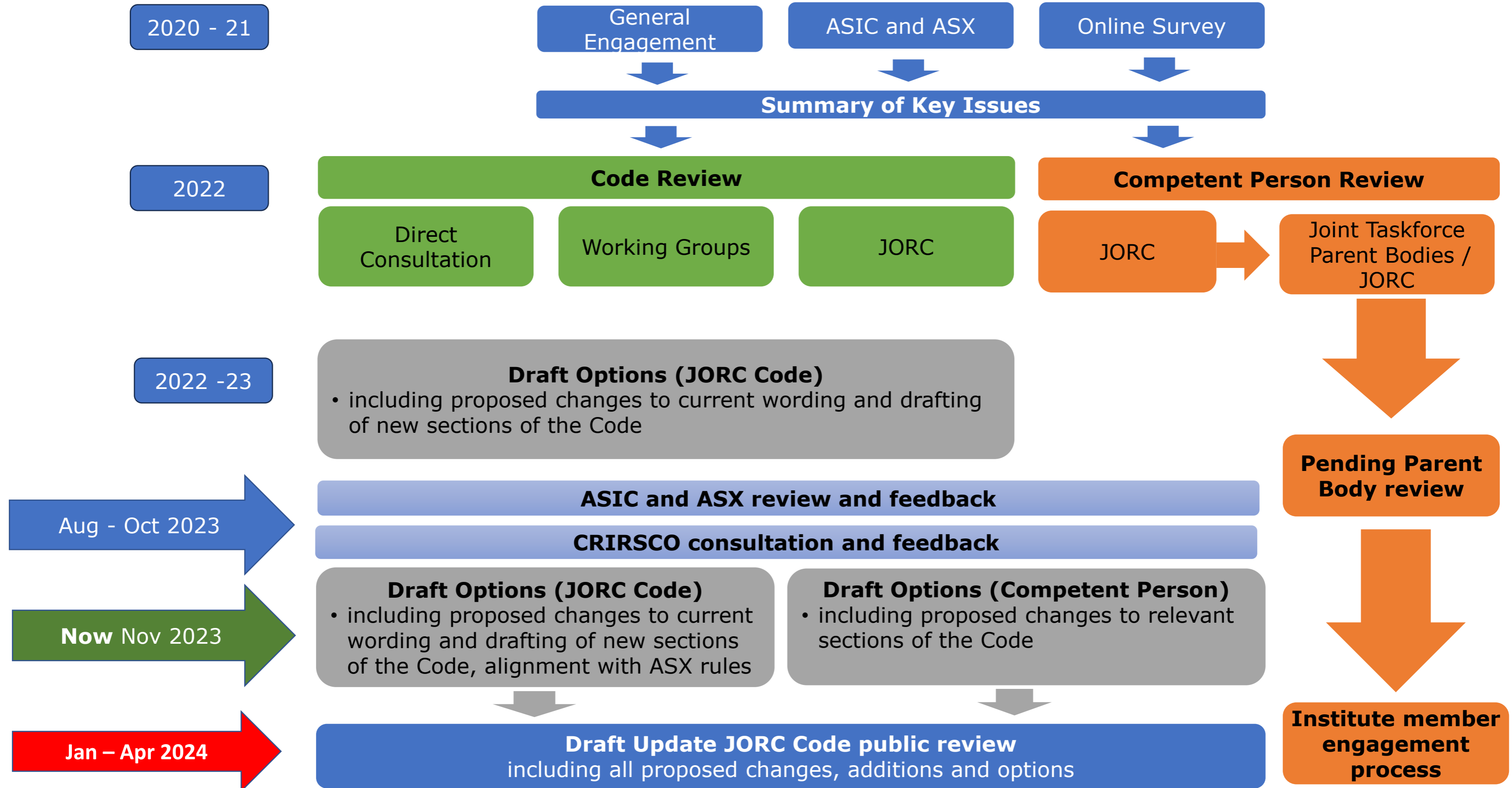
The recent CRIRSCO meeting in Brazil in October 2023 agreed to various changes, updates, deletions and additions to Standard Definitions; the implications of these changes requires consideration by JORC.

Terms under consideration were:

- Mineral
- Public Reports
- Competent Person
- Specialist
- Modifying Factors
- Exploration Targets
- Exploration Results
- Mineral Resources
- Inferred Mineral Resources
- Indicated Mineral Resources
- Measured Mineral Resources
- Mineral Reserves
- Life of Mine Plan (LoMP)
- Probable Mineral Reserves
- Proved Mineral Reserves
- Scoping Study
- Pre-feasibility Study
- Feasibility Study



The Review Process: Engagement



Code Update Plan - progress



Stay Informed

Code Update Contact:

Project Manager – JORC Review: update@jorc.org

JORC chair chair@jorc.org



<http://www.jorc.org>



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