

AusIMM Resources Education Collaboration Summit Report

27-28 October 2021





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About AusIMM

The Australasian Institute for Mining and Metallurgy (AusIMM) is the peak body for resources professionals, with over 13,000 members across more than 110 countries. Established in 1893 and operating under the Royal Charter, we represent professionals across all levels of the mining industry, working from exploration through to delivery and in disciplines ranging from mining engineering to geoscience, health and safety, finance, Government, and academia.

We lead the way for people in resources, supporting professionals to provide enduring benefits for the community. We are committed to upholding ethics, codes and standards in resources and delivering the highest quality of professional development to the sector.

As the trusted voice for resources professionals, we exercise shared leadership to benefit our sector and in the interest of all members of the global community. We advance our sector's continued technical and professional leadership on the world stage, champion community understanding and support for the industry, and work with governments to design, implement and maintain regulatory frameworks that facilitate the continued economic and social contributions delivered through mining.

AusIMM is a not-for profit organisation and is owned by its members.

Resources Education Collaboration Summit Partners

AusIMM partners with like-minded organisations that share our values and recognise the importance of professionals in shaping the future of the resources sector.

AusIMM would like to thank our partners for the Summit, who collaborated to design, deliver and participate in the 2021 event.



Message from the AusIMM CEO

As a member-based association with a 128-year history, AusIMM proudly represents the people whose work is vital to our society.

Mining is already a complex industry – and getting more complex. At AusIMM, we deeply understand that we need people with specialised skillsets to drive innovative thinking. This will help us create new ways to mine and produce the materials needed for our modern way of life.

One key part of our role as the trusted voice is to bring together government, industry and universities to have solutions-focused discussions about our future workforce. Through the Resources Education Collaboration Summit 2021 (The Summit) we explored how we can all work together to secure a high-quality pipeline of people who will continue to make our industry safer and more sustainable.

This Summit, first held in 2019, has fuelled much activity for AusIMM and has also helped sharpen our collective focus. We produced a report from the 2019 Summit with key recommendations for AusIMM to spearhead. As a first step, we engaged close to 30 representatives from mining companies, academia, and industry peak bodies to determine critical areas of focus to secure the supply of our future workforce.

These consultations led us to form our Future Workforce Working Group, made up of experts from all areas of the sector and chaired by AusIMM Director Nicole Brook. This Working Group has focused on three critical skills the industry needs, and has provided research into the supply and demand of these areas.

AusIMM has also led research in partnership with government and industry bodies on young people's perceptions of mining. These insights are invaluable as we look to engage with a broader audience and raise the profile of mining professionals and our industry.

Participants of the 2019 Summit from our New Zealand Branch have since developed an AusIMM Sustainable Careers Roadshow in partnership with local universities locally in New Zealand. Off the back of this success, and encouragement from our recent Summit in 2021, a similar Australian-focused roadshow is planned for 2022.

Much of this work could not have occurred without the participation of delegates at the Summit, and the ongoing collaboration that we have been very proud to lead.

In 2021 we were delighted to bring our stakeholders together again to continue the work already underway.

The two days of workshops and panels summarised in this report, will form the basis for our next steps at the AusIMM and provide guidance to the broader industry. It was encouraging to see participants use the Summit to think outside the box as we discussed opportunities for potential collaboration.

I would also like to use this opportunity to thank our Partners. AusIMM is proud to partner with leading organisations who share our passion for highlighting the fantastic contribution of our sector and its people. A sincere thank you to the Victorian Government for supporting this event a second time in 2021. The Government has helped us deliver a future focused, solutions orientated Summit. I would also like to thank AusIMM's Education Partner UNSW. They are a valued contributor to many of our technical conferences and initiatives, helping support the ongoing development of the resources sector and its people. And a big thank you to our moderators PwC, another long-standing AusIMM partner and someone who we work closely with to deliver high quality events, such as the 2021 Summit and our annual Thought Leadership Series.

At AusIMM we are very proud to be leading the conversation on the future of our workforce, bringing people to the table together to work on some of the big challenges that are critical for our collective future.

Thank you once again to all participants of the 2021 Summit. I look forward to taking your recommendations and discussions as outlined in this report forward.

Stephen Durkin FAusIMM
AusIMM CEO



Executive Summary

The Resources Education Collaboration Summit was hosted by the Australasian Institute of Mining and Metallurgy (AusIMM), in partnership with the Victorian Department of Jobs Precincts and Regions, over two days on Wednesday 27 and Thursday 28 October 2021. This was the second such summit, with the inaugural Resources Education Collaboration Summit being held in 2019.

The Summit had originally been intended to follow a similar structure to the 2019 event involving face to face workshops and collaboration. However, with the second wave of the COVID-19 pandemic causing disruption to travel and face-to-face events, AusIMM was able to pivot the format to two half days delivered virtually for over 120 registrants.

The Summit provided a platform for open and meaningful discussion on prominent issues relating to the sector's workforce. Building on the 2019 Summit, the newly released *A Critical Moment* report on the resources sector workforce and related presentations during the event, participants considered a range of matters that are instructive in guiding the future actions of AusIMM, universities and the broader industry.

The key themes that emerged from the Summit were:



THE NEED TO IMPROVE TRUST WITH THE FUTURE WORKFORCE



THE NEED FOR GREATER COLLABORATION



THE DESIRE TO MAXIMISE EDUCATIONAL AND CAREER PATHWAYS



THE IMPORTANCE OF IMPROVING DATA COLLECTION AND MONITORING

Across the breakout sessions these themes were raised in the context of what identified stakeholder groups could do to improve the resilience of the future resource sector workforce. The three stakeholder groups identified as critical were:

- Industry (employers and employer representative bodies)
- Education providers (mainly universities but also non-university higher education providers, RTOs, and industry-based education bodies)
- Government (all levels)

The purpose of this report is to provide:

- 1 A consolidated view of the themes that evolved throughout the Summit, incorporating the issues to be addressed by industry, education, and government bodies; and
- 2 A view of the potential next steps for the AusIMM and relevant working groups.

1.1 Introduction

The Resources Education Collaboration Summit was hosted by the AusIMM, in partnership with the Victorian Department of Jobs Precincts and Regions, over two days on Wednesday 27 and Thursday 28 October 2021. This was the second such summit with the first Resources Education Collaboration Summit being held in 2019.

The Summit brings together key industry and academic personnel to engage in robust discussion on the topic of resources education and the future workforce. The Summit was designed to be interactive and engaging. Key outcomes of the Summit are summarised in this report for the consideration of interested parties.

1.2 The Summit

The Summit had originally been intended to follow a similar structure to the 2019 event involving face to face workshops and collaboration. However, with the second wave of the COVID-19 pandemic causing disruption to travel and face-to-face events, AusIMM was able to pivot the format to two half days delivered virtually for over 120 registrants.

Given the virtual format, maintaining engagement across the Summit was critical to the design of the agenda. Not only was the event split over two half days to assist with participant interaction, virtual breakout sessions and presentations were interwoven throughout the two-day program to maintain active participant engagement.

The role of PwC as a facilitator of the Summit was to structure and facilitate the breakout sessions in a way that encouraged participants to think laterally, problem solve and bring their immense expertise into the room to create meaningful insights and solutions. PwC used Mural as the virtual workshop engagement tool. Each breakout group (of approximately 12 people) had a dedicated facilitator and Mural "board" for their discussion. This format enabled people to participate while seeing their contributions collected in real time.

Part of The Summit was also designed to consider the findings of Resources Future Workforce Report (a recommendation of the 2019 Summit and a document completed by the AusIMM Future Workforce Working Group in the lead up to the 2021 Summit). The sessions would seek to provide feedback on the draft report and give an indication of where AusIMM and the Working Group should prioritise their efforts in the coming years.

Throughout this report the Resources Future Workforce Report will be referred to by its title, *A Critical Moment*.

1.3 Objectives of this report

This Summit report collates the discussions and conversations from the two days to provide AusIMM with a clear summary of the Summit. The report is structured into three segments:

1. Key themes
2. Roles and responsibilities
3. Session overviews

The desired outcomes of this report include:

1. A consolidated view of the themes that evolved throughout the Summit, incorporating the issues to be addressed by industry, education providers and government bodies; and
2. A view of the potential next steps for the working group and AusIMM.

As with the 2019 Summit, the purpose of the event was not to "solve the problem", but rather continue the conversation on the complex and nuanced issues facing the resource sector workforce. The report provides a synthesis of the complex discussion that occurred during the Summit.

Key Themes

The Summit provided a platform for open and meaningful discussion on the prominent issues relating to the sector's workforce. Building on the 2019 Summit, the newly released *A Critical Moment* report on the resources sector workforce and related presentations during the event, participants on both days spent time considering a range of questions to guide the future actions of AusIMM, universities and the broader industry.

During these exercises, several themes emerged. The themes below were the dominant themes in the discussions and through this report they have been synthesised to articulate a clear and actionable meaning.

These themes are not mutually exclusive, however, separating them into the discrete topics enables a clear articulation of the issues that were raised.

A. The need to improve trust with the future workforce

As noted in *A Critical Moment*, RECS occurred against the backdrop of the 2021 United Nations Climate Change Summit. Consequently, a common topic in the Summit was the role of the resources sector in a net zero economy and the perceptions of the sector's impact on the climate more generally. Specifically, the discussion focused on the potential disconnect between the perceptions and social views of school and university students and the sector's need for those students to enrol in certain courses.

In the 2019 Summit, negative perceptions of the industry were noted as a key theme. The previous report stated, "negative perceptions relate not only to the sector as a whole but to individual job roles within the sector." This was reinforced by a recommendation from *A Critical Moment* regarding the need to conduct a targeted education campaign to improve understanding of the resources sector.

In the 2021 Summit breakout sessions, several subthemes were identified. First, the need for accurate information about the industry to be disseminated to career influencers like parents and teachers. Second, the industry's purpose, demonstrated by individual organisations and collective bodies, must align with, and be seen to align with, the purpose of the next generation of workers. This not only relates to climate issues, but also social issues like gender diversity, LGBTI issues and first nations representation. Third, lifestyle considerations were perceived by participants to be a potential deterrent for young people seeking stable jobs, and these perceptions must also be addressed.

B. The need for greater collaboration

Not surprisingly, given the headline of the Summit, the need for better collaboration between stakeholders was a key theme. There was a strong view across participants that the influence identified stakeholder groups is greater than the sum of their parts.

This theme was also raised in *A Critical Moment* and in the 2019 Summit with the previous report noting "the need for 'one voice' and 'one overarching collaborative body' (to improve) to the current communication problem."

The sessions highlighted that many individuals follow a pathway through school, university and into the workforce. This pathway sees them interact with institutions under the control of all the identified stakeholder groups. Consequently, a disjointed approach, which many felt is the status quo, does not serve the sector's workforce well. It was noted that there are initiatives happening in universities, companies and peak organisations that are valuable and could provide an example for more scalable versions. No matter how valuable these might be individually, there is not a co-ordinated view or approach to such initiatives. Areas for potential collaboration include curriculum, industry insights and approaches to learning delivery.

C. Create more pathways

A strong theme across the breakout groups was the need for more pathways into education and the workforce. The dominant view on this theme was that to address the critical shortage of engineers, pathways into courses and industry must be maximised. The group felt innovation was required to do this in a way that did not erode quality in the sector but still encouraged more individuals to participate.

This was again a theme that was raised in both *A Critical Moment* and the 2019 Summit. In 2019, participants noted that "awareness of education pathways and opportunities is essential and that awareness raising should start early."

In 2021, the discussion built on this awareness point with a greater discussion of what the pathways might look like. Various models were discussed including new course design for full degrees, improving entry points for mid-career upskillers, the development of micro-credentials and improved professional development, and innovative approaches to attract a broader pool of school leavers. A distinct thread to this discussion was that a more diverse workforce would follow as a natural consequence of opening more pathways.

D. Improving data collection and monitoring

As acknowledged in *A Critical Moment*, workforce planning data is poor or inaccessible, which hinders a collaborative approach to the emerging workforce issues. While individual organisations have their own data and there is some national level information, the collection is fragmented, and some data sets are updated irregularly.

It was clear from the breakout discussions that there are core data sets which would enable the efforts identified in this report.

With respect to national labour force information participants reflected there is good high-level information, but more granularity would enable improved responses. Skilled migration information can also be difficult to acquire, and its availability would help with decision making.

On the demand side, there is no co-ordinated approach to link the information which organisations currently collect or develop. Participants recognised that there are commercial sensitivities with the data, but deidentified versions could be collated to enable collaborative effort. On the supply side, the collection of enrolment, progression and graduation data is piecemeal. Participants were strong in their view that given the relatively low number of universities now involved in target courses, this could be an area that is easily addressed.



Roles and Responsibilities

The presentations, discussions and workshops that took place at the Summit were structured to enable participants to contribute to Summit’s goals: guiding the actions of AusIMM, respective working groups and the broader industry over coming years.

All three breakout sessions were designed to build on the presentations over the two days and the draft *A Critical Moment* report that was released to the participants in the lead up to the Summit.

Each session asked participants to consider the practical responses to challenges outlined in the presentations and Report. The breakouts did this by providing stimulus questions followed by a facilitated discussion. The discussion started broadly through considering the areas that should be next considered by the AusIMM Future Workforce Working Group. Subsequent questions asked participants to consider the roles of each of the key stakeholder groups, industry,

education institutions and government. They were asked to consider the information that each of those groups could provide, the specific role of each of those groups, how each could contribute to a collaborative effort and then suggested specific next steps.

Given the purpose of the Summit, the breakouts were designed recognising that roles and responsibilities would not be mutually exclusive and collectively exhaustive. Below, for ease of capture, we have grouped the key items under each stakeholder group. However, there is overlap and interdependency across several points. Consistent with this, a section where responses required shared responsibility has also been included.



| INDUSTRY | |
|--|--|
| The need to improve trust with the future workforce | Industry has a clear role in “telling the story” to future participants. In response to building trust with young people, Summit delegates felt industry could reach deeper into schools to provide information on the opportunities that industry can provide. Similarly, while many organisations are developing a clear purpose and response to social issues, this message is not being heard by the next generation of workers. There is also a view that the current “lifestyle” of workers in the industry is incompatible with the desires of future generations of the workforce. |
| The need for greater collaboration | There were three core contributions that participants submitted industry could make to the overall collaborative effort: <ul style="list-style-type: none"> Increasing the number of work experience opportunities for inclusion in university courses Contributing to a micro-credential approach that may be delivered by universities and/or endorsed by government Contributing to the content and delivery of courses by providing relevant industry insights and guest lecturers |
| Create more pathways | Participants consistently responded that industry was critical to the creation of more career pathways. For those looking to begin their career, the provision of more, and earlier, internship opportunities were common responses across the groups. Participants suggested that even providing opportunities in school would be beneficial. There was a strong theme that industry should play its role in attracting diverse cohorts to the industry through mid-career pathways. On this point, a well-recognised, industry based micro-credential program should be an immediate priority. |
| Improving data collection and monitoring | Participants across groups mentioned that large organisations have an approach to workforce planning designed to meet their business needs. This data, in deidentified form and curated by a third party, could provide critical insights for how the Working Group and broader collaborative effort might respond to workforce challenges. |

| EDUCATION PROVIDERS | |
|--|---|
| The need to improve trust with the future workforce | Participants contributed that education providers already have significant influence over the career decisions of school leavers, and this provided an opportunity to improve overall trust with this cohort. Specifically, the framing and promotion of relevant courses should reinforce industry efforts to strengthen the employee value proposition. |
| The need for greater collaboration | There were three core contributions that participants suggested education providers could make to the overall collaborative effort: <ul style="list-style-type: none"> Improving links with industry to have them contribute insights and people to the course design and delivery Work with industry to identify non-traditional entry pathways, including mid-career cohorts who can be upskilled, and develop courses that can accelerate their upskilling Work with government to engage with schools and the national careers system to improve the understanding of school students about the opportunities of target courses and careers in the industry. |
| Create more pathways | This was the strongest theme for this stakeholder group. Participants suggested that universities should develop innovative course designs that attracted more students. These included allowing students to make their decision about specialising later in their course and including more and earlier work integrated learning. On the pathways theme, participants submitted that universities should do more to open pathways to participants that may not have traditionally considered the target courses. This included developing entry pathways that attracted VET qualified individuals and mid-career professionals. |
| Improving data collection and monitoring | Participants noted the data points in A Critical Moment regarding enrolment numbers and suggested that a consistent collection of enrolment and completion data would be a very useful input to the Working Groups endeavours. |

Detailed Summary of Day 1

| GOVERNMENT | |
|---|---|
| The need to improve trust with the future workforce | Participants were clear that government has a responsibility as a third-party voice to tell a fair story about the resources sector and the role it will play in Australia's future. There was a view across groups that government is influential in the "macro" conversations and having a consistent message would help remove misconceptions about the industry. Further to this, state governments are the gateway to schools and have a critical role to play in enabling the dissemination of information. |
| The need for greater collaboration | The main collaborative contributions participants suggest government could make were: <ul style="list-style-type: none"> • Being a central point for accurate careers information that helps remove misconceptions about the industry and identifies educational pathways • Work with universities and industry to develop nationally recognised frameworks of upskilling like micro-credentials |
| Create more pathways | Participants were strong in their view that the current initiatives aimed at setting up a national micro-credential framework should be implemented as a priority. Similarly, any efforts to increase the number of pathways for undergraduates should also continue and evolve. Participants noted the role of the federal government with the National Careers Institute and the national careers system more generally. This role is critical in addressing some of the issues raised across the sessions. |
| Improving data collection and monitoring | Participants recognised that some nationally collected data would be a useful addition to the supply and demand data suggested above. Specifically, labour force data, project pipeline information and skilled migration data were all identified as potentially useful. Participants recognised that some of this data is currently publicly available, however, greater regularity and recency may help with the identified initiatives. |

| COLLECTIVE RESPONSIBILITY | |
|---|--|
| The need to improve trust with the future workforce | The initiatives identified above can only work with co-ordinated messaging and a communications plan. Participants noted that while each stakeholder group may have individual responsibilities, a high level of co-ordination would be necessary. |
| The need for greater collaboration | Participants suggested that the different stakeholder groups should "organically" interact and collaborate on these initiatives. However, there was a view that effective collaboration would require an element of co-ordination. |
| Create more pathways | A strong theme from participants was the need to attract diverse cohorts to the industry. There are initiatives identified above, however, ultimately this will be an area of collective responsibility. |
| Improving data collection and monitoring | While having the data sets identified above will be helpful, participants recognised that a body would have to be charged with collecting and synthesising the data to make it available to the Working Group and industry. |

Overview of presentations

Day 1 of the summit commenced with a welcome and introduction by the Head of Resources from the Department of Jobs, Precincts and Regions in the Victorian Government, John Krbaleski and the CEO of AusIMM, Stephen Durkin. This was followed by a short introduction to education and the future of the workforce by Professor Ismet Canbulat, who is the Head of the Minerals and Energy Resources Engineering school at UNSW in Sydney.

The first session included a panel discussion centring on the Resources Future Workforce Report, *A Critical Moment*, looking in depth into the latest data research on supply, demand, and key skills in the resources sector, and reflecting on key forecasting, to enable exploration of challenges and opportunities the future pipeline is facing.

The panel included the experts:

- Joanna Heyes (Global Practice Lead – Technical Capability, BHP)
- Professor Peter Knight (School of Mechanical and Mining Engineering, University of Queensland)
- Tim Rawlings (Director and Head of Training Product Development, PwC's Skills for Australia, PwC)
- Facilitated by Nicole Brook (Chair of the AusIMM Working Group for the Resources Industry Future Workforce)

The main discussion points in the panel related to trends in demand for workers and the skills these workers will require in the future resources sector. In particular, the panel discussed the growing divide between the forecast demand for specific engineering job roles and the number of graduates coming from relevant university courses.

Other topics of discussion included the need for greater diversity in the workforce, the outlook for commodities and the impact on the workforce, and the ongoing impacts of technology and automation.

Following the panel, attendees participated in breakout room activity 1 (see below for more details).

After that breakout activity, Professor Michael Hitch, Head of Western Australian School of Mines: Minerals, Energy and Chemical Engineering presented on enhancing education pathways through the higher education sector. Professor Hitch provided an in depth look into the changes of degree structure, student needs and sentiments, and how key players can adapt to rising challenges in skill supply.

The final session of the day engaged participants in breakout room activity 2 (see below for more details).

Breakout activities 1 & 2

The purpose of these breakout sessions was to establish some fundamental areas for consideration before further, more specific, breakout activities. Following the release of *A Critical Moment* and the panel discussion from members of the Working Group, this was an opportune time to get the initial reactions of participants.

Participants were first asked: **With the initial body of work complete, what are the most important areas for the Working Group to address next?**

Participants were also asked to provide an indication of how urgent and important these areas were relative to one another. These were plotted on a matrix by the breakout facilitator. They were also asked what information each of the stakeholder groups could provide.

For the second breakout, groups were asked to identify **what role each of the stakeholder groups could play in the future collaboration.**

The two tables on the following pages identify the consolidated insights from the session.

What are the most important areas to address next?

| | |
|--|---|
| <p>Priority areas</p> | <ul style="list-style-type: none"> • Perceptions: Shifting media perceptions is particularly important. A study looking at school perception should be undertaken. Data needs to be robust, verifiable, and assumptions need to be as accurate as possible. • Schools and school children: There is resistance in schools, and a lack of engagement from teachers to discuss the mining industry. Communication is lacking with the younger generations, and their hearts need to be won. Influencing the influencers – being teachers and parents – is also key to increasing the effectiveness of school programs. • Attractiveness of the industry: Improvement of lifestyle to be less isolating, specifically around FIFO ways of working. • University Students: Building a narrative around a career in the industry, in conjunction with upskilling could be useful in engaging university students, by creating a vested interest for them. • Collaboration: Setting up an 'overarching body' to facilitate stakeholders communication and collaboration. |
| <p>Urgent and important areas for consideration</p> | <ul style="list-style-type: none"> • Data: Whilst a centralised database is very useful, a challenge is presented through the proprietary nature of much of the target data. • Humanisation: Many students don't see the people behind the resources companies, and see companies as focused largely on money, which is not a driving factor for students. • Industry Transition: Transitioning into the industry from other sectors is valuable as it increases the talent pool, but little information is available to students or workers in the pipeline on how to pursue this. More information about job roles would help to increase engagement, trust and interest in the sector. • Interests: Student interests need to be considered carefully, and collaboration between higher education and tertiary education needs to be enhanced to give a better view of what the future looks like. |
| <p>Other consistent themes</p> | <ul style="list-style-type: none"> • Demographics: There is an impact of talent loss in the industry as the workforce ages, and specifically women struggle to join and stay in the resources workforce. • Leaky pipeline: Solutions to this issue could be constructing pathways, particularly between resources and construction. • National Reach: AusIMM has national reach, which could be used for interstate collaboration. This could also be extended internationally to collaborate with different countries. • University Utility: Greater understanding of emotional drivers is needed, as well as bolstered work experience programs. For example, a 'sandwich program' could engage students in industry work from the beginning of their degrees, and continue throughout. • University entrance: Universities tend to need high ATARs to get into their courses. However, this acts as a barrier to many. It may be worth investing in alternative pathways, such as micro-credentialing, and investigating the way programs are packaged. |

What roles do stakeholder groups play in future collaboration?

| STAKEHOLDER GROUP | ROLE |
|--------------------------|--|
| <p>Government</p> | <ul style="list-style-type: none"> • Responsible for setting up and maintaining communication pathways between schools, students, and universities. This should be utilised to attract students by emphasising pathways most aligned to student values. • A singular source of accurate skills information, highlighting transferable skills. • Ensuring curriculums are aligned with industry needs and ensuring the industry is engaged in needs/skills analysis to keep these up to date. • Introducing geoscience, and social science subjects from primary school onwards, and emphasising this pathway into university. • Being a career hub both nationally and internationally to provide the most employment opportunities possible. • Link funding for universities to KPIs |
| <p>Industry</p> | <ul style="list-style-type: none"> • Creating a national standard, and international standard for engineering degrees. Work with the government to review curriculum frequently to keep it up to date. • Focus on skills: this can include upskilling inhouse, micro-credentialing, and helping people achieve industry PhDs. Investment in guest lectures, advisory groups, and information accessibility is important so members of the industry can develop high level, transferable skills. • Oversee student immersion in the industry through sponsorship programs, and internship opportunities, as well as university alternatives like centres of excellence. Such initiatives are also an opportunity to create and share datasets to improve training and instruction. • Develop solutions during cyclical downturn instead of reducing employment. • Industry bodies can facilitate connection with educational institutes, allowing the workforce to give back and collaborate easily. This will help in understanding what opportunities need to be provided. |
| <p>Academia</p> | <ul style="list-style-type: none"> • Capture the expertise of retiring professionals • Collaborative teaching between universities, as well as industry professionals, and industry board members. • Focus on soft skill development of students as well, such as building resilience for entering the industry as it can be remote and isolating at times. This will help to improve the value students get from their education. • Engage with high school students more effectively and promote success stories as well as creating useful experiences such as STEM days. • Teach university students analytical skills and methods as well as encouraging practice. Encouraging valuable experiences such as Challenge Days. • Create job aware graduates, understanding that you cannot create job ready graduates individually. |

Detailed Summary of Day 2

Overview of presentations

Day 2 began with a welcome from the Honourable Jaala Pulford, MP, Victorian Resources Minister.

This welcome was followed by a presentation by Alex Bates, Senior Vice President from Newmont Australia, which focused on retaining a skilled workforce that can satisfy the future needs of the industry. Specifically, Mr Bates discussed the current challenges posed by COVID-19 and highlighted examples of where workforce diversity has been improved through innovative approaches to attraction and retention.

The panel discussion for the day explored 'the great skills competition' including the ability to attract talent from adjacent industries. Participants included:

- Brendan Howard, General Manager – Technical Capability, Rio Tinto
- Marianne Dravnieks, Executive Manager People and Culture, Northern Star Resources
- Jodie Badcock, CEO, Resources and Engineering Skills Alliance (RESA)
- Facilitated by Stephen Durkin, CEO, AusIMM

The panel discussed the fact that talent is as hard to find now as any time they can remember. This has been driven by multiple factors including the lack of labour mobility resulting from COVID-19, the level of activity in the sector and the lack of graduate numbers. The group touched on A Critical Moment and reflected on initiatives that may improve the supply of graduates to the sector. The group also discussed adjacent sectors and how collaboration with those sectors may improve workforce supply issues.

Breakout activity 3

The purpose of this breakout session was to build on the multitude of information presented over the two days to identify key actions and next steps for the identified stakeholder groups. Coming at the culmination of the two days, this was designed to provide clear advice from the participants to the Working Group regarding priority actions and next steps.

Participants were first asked **to identify the key actions that identified stakeholder groups could undertake to improve attraction and retention.**

As part of this exercise participants were asked to identify adjacent industries that pose a threat (or opportunity) to employee retention. They were also asked to consider specific actions to compete for skilled professionals.

For the second breakout, groups were asked to identify **the next steps for each stakeholder group.**

The table below identifies the consolidated insights from the session.

Key actions to improve attraction and retention in the industry

| STAKEHOLDER GROUP | ACTIONS FOR ATTRACTION AND RETENTION | NEXT STEPS |
|---------------------|--|---|
| Government | <p>Act as a third-party advocate on the future of the sector.</p> <p>Undertake more work with schools to improve the understanding and attractiveness of feeder subjects.</p> | <p>Develop a national strategy for micro-credentials.</p> <p>Provide good information on where skills shortages are through National Careers Institute.</p> <p>Provide support co-ordinate efforts across state governments.</p> |
| Industry | <p>Provide upskilling opportunities and recognised CPD like micro-credentials.</p> <p>Identify ways of supporting transition between job roles or from other industries.</p> | <p>Give academia exposure to modern industry practices to maintain relevance.</p> <p>Develop mid-career pathways programs for intra- and inter- sector movement.</p> <p>Improve attractiveness for industry including through flexible work approaches that improve diversity.</p> <p>Establish more work experience and work integrated learning opportunities.</p> |
| Education Providers | <p>Promote graduates with PhDs and higher level quals to convert more into industry practitioners.</p> <p>Work with students to reinforce industry opportunities and career pathway opportunities.</p> <p>Have industry involved in course development to draw direct relevance to job outcomes. Include real practitioners.</p> | <p>Increase reach and open maximum pathways and attract students that traditionally would not have undertaken taken courses. This may include better outreach and marketing.</p> <p>Engage earlier with school students including taster courses.</p> <p>Increases awareness and attachment to the sector amongst university students to attract and retain diverse cohorts and keep pace with efforts in industry.</p> |



