AusIMM

# Resources Education Collaboration Summit

VICTORIA State Government

pwc

# Summary

This is a short summary of the full report and includes the display of the key themes and as well as recommended goals and next steps for consideration by AusIMM. The full report summarises key discussions from the workshops of the day. A full copy of the report has been provided to delegates and is available to interested members by emailing policy@ausimm.com

As emphasised at the commencement of the Summit, the purpose of the day was not to "solve the problem", but rather start the conversation on the complex and nuanced issues facing the industry. The report provides a summary of the collective efforts achieved at the Summit in commencing this process and recommends the essential next steps to build on this and start to take action to solve these issues.

It should be noted that the report produced from this event is not a policy paper by the AusIMM. As such, recommendations proposed currently in this report are not binding, and are for consideration by AusIMM Board and Communities of Interest during the development of future activities, initiatives and strategies in relevant areas.

1. Improving the public perception of the sector
2. Need for more "internal" communication and collaboration
3. Building an effective external "narrative"
4. Government has a role to play in the future of the sector
5. Development of education pathways and opportunities
6. A sustainable and agile workforce for the future

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# Introduction

The Resources Education Collaboration Summit (RECS) was hosted by the Australasian Institute of Mining and Metallurgy (AusIMM), in partnership with the Victorian Government, on Thursday 3 October 2019. The Summit provided an opportunity for key resources sector leaders and representatives from industry, education and government to come together and explore the future of the resources sector workforce.

The purpose of the Summit was to bring together a diverse group of people and provide a platform for a robust and meaningful discussion on how we can collectively build a sustainable workforce for the resources sector. Education and the supply of a future workforce is an issue of paramount importance across the resources sector. With significant decreases in relevant enrolments, competition for graduates with other sectors, and challenges around the perception of the industry, many organisations are struggling to find workers to match the demand in their businesses.

The resources sector is a critical pillar of the Australian economy, contributing 19% of the country's economic growth over the last decade and indirectly employing over 1 million Australians. Therefore, supporting the sector to evolve in the changing education and workforce landscape is both a valuable and necessary investment.

# Key Themes

The Resources Education Collaboration Summit provided a platform for open and meaningful discussion on the sector's more prominent issues currently being faced. With approximately 80 diverse, well-informed and passionate individuals coming together, there was an extensive range of discussions to be captured on the day. However, over the course of the day, a number of key themes emerged in the presentations, discussions and workshop activities. These themes are specifically called out as they encapsulate the most prevalent discussions and represent the key pain points felt by industry, education and government. These themes are not mutually exclusive, however, separating them into the discrete topics enables a clear articulation of the issues that were raised.

## A. Improving the public perception of the sector

Throughout the day the issue of "perception" was a frequent discussion point, with participants continuing to highlight that the sector has an image problem within broader Australian society. In particular, it was noted that the sector is often described as "dirty", "dangerous", and "disruptive", with the impact of this perception being that it is hard to attract new talent and receive ongoing support in the sector. In particular, it was noted that commentary in the social environment regarding the long term environmental sustainability of the sector was increasing, resulting in difficulties attracting young workers and combating negative media attention.

These negative perceptions relate not only to the sector as a whole but to individual job roles within the sector, and as a result many different solutions to this problem were discussed. In particular, increasing awareness and marketing "good news" stories from the sector, alongside increased engagement with schools and communities, was recommended as a key strategy in shifting public perception.

## B. Need for more "internal" communication and collaboration

The purpose of the Summit was to enhance collaboration between industry, education and government, and the need for these bodies to work together became a central topic of conversation during the day. Conversations around collaboration took a number of different directions, including the need for a cohesive approach to improve forecasting for future skills needs. Participants noted that better skills forecasting would allow educators to develop appropriate pathways and courses that prepare students to engage in current and future job roles and thus provide the sector with the required skills mix. Participants also noted that a collective effort is required to address the perception issue. Challenging societal views and misconceptions in political and media commentary requires a collaborative and informed approach that should draw on the expertise of different bodies.

In addition, with such a large number of stakeholders involved, the need for "one voice" and "one overarching collaborative body" was identified as a potential solution to the current communication problem. This body would represent a group of collective voices from industry, education and government, and could take the lead on addressing the issues currently being faced.

## C. Building an effective external "narrative"

At many points throughout the day participants talked about the need for an external narrative showcasing the positives and benefits of the sector. Many of the issues being faced by the resources sector stem from a lack of awareness and inaccurate perceptions, therefore, clear and meaningful communication with non-industry players is critical.

In particular, this external narrative should highlight the "good news" and "success stories" in the sector, both from an individual and collective perspective. For example, reiterating the importance of the sector for the country and its contribution to economic growth, whilst also highlighting the meaningful and innovative job roles that workers in the sector engage in. The sector is rapidly changing and evolving with new ways of working, technologies and job roles. Reimagining the external narrative to focus on the innovative nature of the sector could play a key role in changing the perception of the sector.

## D. Government has a role to play in the future of the sector

While much of the day focused on the contribution of education and industry and their roles in building a more sustainable workforce, the role of government was emphasised in supporting real change to take place. While industry and education bodies are often directly faced with these issues on a daily basis, government has a broader responsibility to drive growth in Australia's economy and job creation by facilitating economic transformation and boosting industry competitiveness.

Furthermore, government can help where other bodies may not be able to, including with policy changes, funding incentives, and marketing campaigns. As a result, the government will be an important player in helping to achieve sector targets and goals moving forward.

## E. Development of education pathways and opportunities

Throughout the day the topic of education was of utmost importance due to the impact it has on the skills of the workforce and career decisions. It was agreed that to encourage more students to enrol in mining-related disciplines, a key focus should be on the enhancement of existing education pathways and the development of new education pathways into the sector. While there are a range of existing pathways into the sector (mainly higher education), diversifying entry and progression options (including through VET, micro credentials and cross-sector opportunities) will enhance the ability to attract, retrain and upskill students, graduates and workers.

Participants noted that awareness of these education pathways and opportunities is essential and that awareness raising should start early. Indeed, engaging with primary and secondary school students and their communities about the sector and the opportunities it provides was a prominent point of discussion throughout the day. It was recognised that engaging students in practical engineering and mining concepts should start early and continue through to graduation from high school to support student enrolment numbers at the tertiary education level.

## F. A sustainable and agile workforce for the future

It was acknowledged throughout the day that the nature of work in the resources sector is changing. A common example referenced by participants is the impact of technologies that can be operated remotely. Indeed, with autonomous vehicles and machinery, the requirement for workers to be located onsite is changing, with the possibility that machines operating in remote Western Australia are controlled by a worker on the east coast.

In this environment of change, the agility and adaptability of the workforce is essential. Workers need to have the skills to engage in businesses and job roles that are changing and be supported to understand what their future is in the sector. Bringing workers on this journey is critical to ensure stakeholder buy-in and ongoing engagement with the sector.

# Where to from here

The presentations, discussions and workshops that took place at the Summit were structured in a way to guide participants' thinking towards the end goal of the day: to develop a list of key next steps for AusIMM's consideration. With each of the sessions focusing on a specific topic, attendees had the opportunity to reflect and contribute to each individual topic before bringing it all together for the final session on next steps.

Based on the discussions throughout the day and the analysis above on the key themes, this report has synthesised the information into four targeted 2025 goals for AusIMM's consideration. The purpose of these goals is to resolve some of the issues raised throughout the Summit, with a particular focus on goals that facilitate better industry, education and government collaboration to address the education and skills shortage faced by the sector. Each goal is structured with an overarching statement of the goal, followed by the identification of key steps that could be taken by AusIMM to action the goals.

It is noted that this report proposes the goals be led by AusIMM and that AusIMM would draw on its unique position in the resources sector with a plethora of contacts and experts to help action the goals. Therefore, the goals are conceptualised with AusIMM playing a facilitator role, but drawing on other bodies and individuals to spearhead, lead and help achieve these goals is critical.

**GOAL 1.** AusIMM to investigate the establishment of an overarching collaborative body that can take ownership of goals

**Key actions:**

1. **Help strategise and define** the vision, purpose and overall strategy of the body, roles and responsibilities, terms of reference and associated definitions
2. **Assist in determining** membership, support structures, governance structure, communication channels and accountability measures
3. **Conduct a kick-off session**, aligning members on the purpose, vision for the body, as well as the Sustainable Resources Sector Workforce Strategy for 2025 (discussed in more detail below)

This collaborative body could be responsible for actioning the goals set out below.

*AusIMM should consider overseeing the activities of the body and provide general administrative and facilitation support where required.*

**GOAL 2.** Development of a robust internal engagement strategy for forecasting future needs

**Key actions for consideration:**

1. **Develop** vision and targets for the ideal forecasting
2. **Define** the resources sector
3. **Map** key contacts across the sector to communicate and engage with
4. **Develop** a centralised collaborative platform to shape "best practice"
5. **Map** the skills requirements aligned to the national economic and social strategic plan, as well as the needs and trends of the sector and what is required for a sustainable future workforce
6. **Consult and collaborate** with different bodies to establish a unified view on the key skills gaps and forecasting needs
7. **Assign** roles, responsibilities and frequency for gathering, collating and forecasting data
8. **Utilise** the centralised collaborative platform to store and access forecasting information as required
9. **Conduct** a trial period to determine the effectiveness of the solution and refine as required

**GOAL 3.** Improve the perception of the resources sector in order to increase its sustainability and long term potential

**Key actions for consideration:**

1. **Develop** vision and targets for perception of the sector
2. **Generate** a list of initiatives to be implemented to improve perception. Such initiatives can include:
   a. Develop and expand national and state **programs to engage** with primary and secondary education providers, industry and outreach programs to influence young learners and increase awareness of the sector (e.g. school visits by industry professionals, mining summer camps, etc.)
   b. Create a **national campaign**, advocating the "good news" stories and other positive work being done by the sector
   c. Target **social media platforms** with "success stories", such as displaying "a day in the life of mining and resources sector worker" via movies, short films and/or advertisements
   d. Host a **national student forum** on mining, creating an open space for respectful dialogue between students and mining companies to bridge the gap
   e. Showcase how we are advocating as a **sustainable industry**, and meeting the UN's sustainability goals
3. **Determine** timeframes, individual roll out plans, and responsible parties
4. **Put** measures in place to determine the effectiveness of these initiatives

**GOAL 4.** Develop and expand education pathways to diversify entry and progression options

**Key actions for consideration:**

1. **Develop** vision and targets for sustainable education
2. **Generate** a list of initiatives to be implemented to expand education pathways. Such initiatives can include:
   a. **Improve the connections** between the education sectors and **streamline pathways** between sectors using a range of delivery options (online, face-to-face, blended)
   b. Create mining training and information **packages for schools** to inform them of the "what, who, how and where" and assisting Careers Counsellors in their role
   c. Enable **training and upskilling opportunities** for people who are already involved in the sector or who are transferring from another sector
   d. Establish and promote **industry internships** and **work integrated learning**
   e. Developing targeted scholarships at undergraduate and postgraduate coursework level
3. **Determine** timeframes, individual roll out plans, and responsible parties
4. **Put** measures in place to determine the effectiveness of these initiatives

While these four goals have been developed based on discussions and outcomes from the Summit, there are many different pathways these goals can take. PwC recommended that these goals are further refined and enhanced with the development of a *Sustainable Resources Sector Workforce Strategy*. The benefit of a formalised strategy is that it will ensure all stakeholders are aligned to a common vision and purpose, and establishes a single source of truth when considering steps that should be taken. The strategy should include the following elements:

1. Statement of key principles
2. Current state assessment
3. Articulation of vision
4. Benchmarking comparison with other sectors facing similar issues
5. Delineation of goals
6. Action roadmap

Below is a proposed approach for the development of the *Sustainable Resources Sector Workforce Strategy*:

**Confirm vision and goals for 2025**
Confirm the ideal future state and vision for 2025 and ensure the goals align with that vision.

**Research and benchmarking**
To identify and leverage off best practice in other sectors.

**Conduct workshops and consultations**
To refine goals and initiatives with inside knowledge and input.

**Develop specific action plans and a roadmap to 2025**
Based on the research and consultations, develop key steps to achieve each goal and initiative, including timeframes.

**Commence rollout of action plans and roadmap to 2025**
Begin the journey of building a sustainable workforce for 2025.

**Question 1: What do you think is the biggest barrier in increasing the supply of traditional disciplines? (n = 46)**

**Question 2: What are similar disciplines that the resources industry can draw on? (n = 50)**

**Question 3: Which education format do you think is best placed to support the upskilling of other disciplines? (n = 52)**

# Participating organisations

This report compiled, was put together based on the discussions of many participating groups on the day. These include:

AusIMM Geoscience Society
AusIMM Health and Safety Society
AusIMM Metallurgical Society
AusIMM Mining Society
AusIMM Mining Society
AusIMM Social and Environment Society
Austmine
BHP
Cahoot Learning
Charles Sturt University
Core Learning Foundation
CQUniversity
CSIRO Mineral Resources
Department of Jobs, Precincts and Regions
Dept Of Industry, Innovation and Science
Deswik
Earth Science WA
Federation University Australia
FLSmidth
Glencore
Iluka Resources
Independence Group
Industryc2i
James Cook University
Kirkland Lake Gold
Metisphere
Minerals Council of Australia
MinEx CRC/University of South Australia
Monash University
National Australia Bank
Para-professional And Technician Course Recognition Working Party
PwC
RMIT University
St Barbara
Swann Global
Swinburne University
The Australian National University
University Of Adelaide
University Of Melbourne
University Of Queensland
University Of South Australia
University Of Tasmania
University Of Western Australia
University Of Wollongong
UNSW
WA School of Mines
Worley
Yokogawa