

Critical Minerals and Electric Vehicle Skills Summit 2023

10-Point Strategic Plan



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1.0 Introduction

On the 26th October 2023, the Mining and Automotive Skills Alliance (AUSMASA) was proud to host the **Critical Minerals and Electric Vehicle Skills Forum (CMEV)** in Canberra.

Bringing together respected thought leaders, peak bodies, government, education and industry stakeholders, the facilitated forum created an opportunity for stakeholders to collaborate in the identification of key priorities for the realisation of the nation’s strategies around critical minerals, electric vehicles and the mining and automotive industries more broadly.

The forum culminated in the development of a 10-point strategic plan for tackling common workforce challenges and opportunities in the mining and automotive industries.

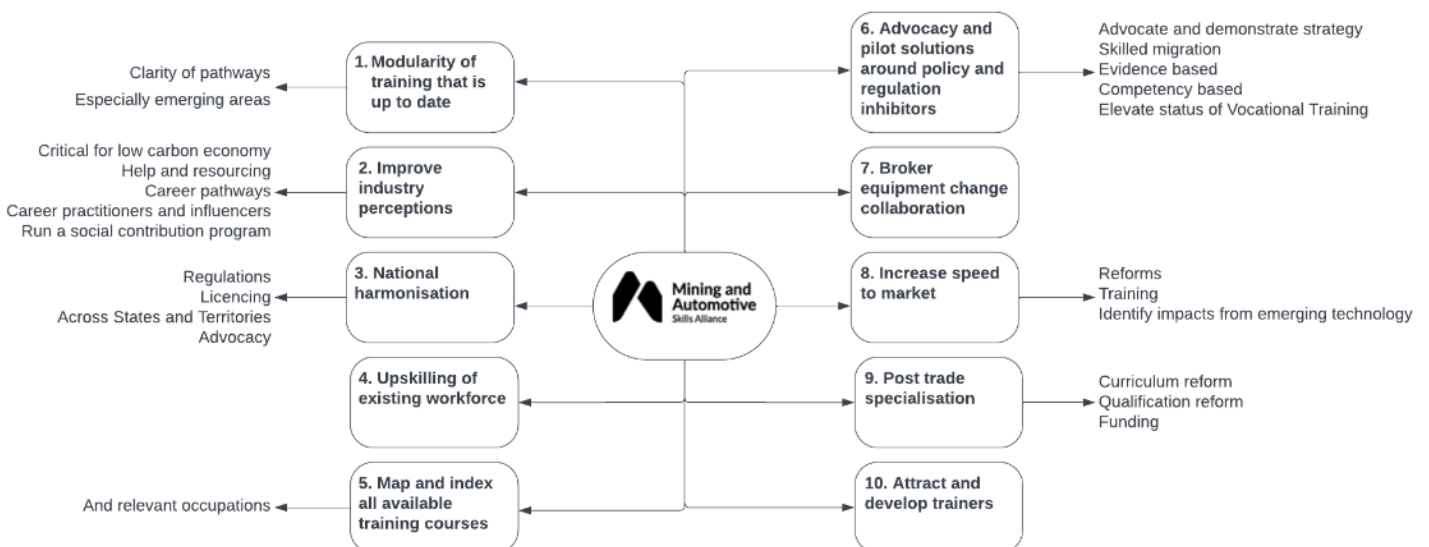
Each strategic priority is matched with a core function of a Jobs and Skills Council including:

1. Workforce Planning
2. Industry Stewardship
3. Training Product Development
4. Implementation, Promotion and Monitoring

AUSMASA is committed to working collaboratively with stakeholders to advance the priorities identified in this plan. Each strategic priority outlines the next step in progressing the priority. This 10-point plan will be updated by AUSMASA on a bi-annual basis, with progress against each strategic priority communicated to stakeholders.

The identified priorities will also become key inputs into AUSMASA’s 2024 Workforce Plan, with proposed actions therein matching those in this document.

CMEV 10-point Strategic Plan (Map)



2.0 The 10-point Strategic Plan

1 – Modularity of training that is up to date

A key theme discussed throughout the forum was the possibility of better streamlining training within the AUR and RII training packages, utilising skill sets to build up to full qualifications.

Skill sets are currently used as important bridging program tools, though they don't necessarily combine or work together to clearly build up to new qualification endpoints.

Like the theme around the importance of modern and suitable plant and equipment, the need for units of competency to be reviewed for industry currency was also a strong point of discussion.

Several discussions also identified examples where the process required to effect upskilling seemed unnecessarily complex. Examples included the need for Light Vehicle Mechanics to complete a whole new apprenticeship if they wanted to become Heavy Vehicle Mechanics, or similar re-qualification requirements within the mining industry for processing operations.

Together, up-to-date units of competency and qualifications and skill sets that offer greater scaffolding of learning were seen as a key priority for fully realising the potential of modular training delivery.

JSC Core Function(s): Training Product Development

Next Steps

AUSMASA's Initial Workforce Plan ([The Future is Now](#)) has identified opportunities to conduct a targeted review of the AUR package, along with a comprehensive Skills Mapping and Careers Mapping exercise for both the automotive and mining industries.

These proposed projects will be developed into comprehensive briefs and considered by AUSMASA's two Strategic Workforce Advisory Panels (SWAPs)

2 – Improve sector’s perception

A key area of discussion amongst stakeholders at the CMEV Skills Forum was the negative impact industry perceptions had on recruitment efforts for both the mining and automotive industries.

The root cause of these negative industry perceptions was discussed and found to be slightly different for each industry, with the impact, however, being the same.

Critical Minerals, as part of the broader mining industry, should theoretically be seen in a very positive light, given their importance to a decarbonised future. However, as research by AUSMASA has shown, perceptions of the mining industry (specifically by Gen Z) are shaped by concern for the environment and little understanding of the role that mining plays in safeguarding it into the future.

A lack of career knowledge and a negative view of mining, in general, is creating candidate attraction issues. In the case of mining, the highly publicised issues of sexual harassment and bullying have only exacerbated this challenge further.

The discussions around industry perception within the automotive industry focussed on outdated views of automotive careers, with persistent stereotypes of jobs being ‘dirty, oily and unsophisticated’. The lack of insight into potential careers, including those increasingly relying on modern technological tools and diagnostics, was seen as a key inhibitor to candidate attraction.

Participants felt that greater awareness of career opportunities and the role that both the mining and automotive industries play in helping Australia reach net zero would be critical to improving perceptions.

Discussions revolved around improved collateral for career counsellors, ongoing education campaigns for both industries and ongoing efforts by industry to improve workplace health and safety (physical and psycho-social).

JSC Core Function(s): Industry Stewardship and Implementation, Promotion and Monitoring

Next Steps

A number of projects are either underway or being developed to assist with this strategic priority.

Funding is being sought for a comprehensive survey into Gen Z perceptions of the Automotive Industry, with the view that insights from this research will inform future attraction campaigns and initiatives.

AUSMASA will also collaborate with the National Careers Institute to ensure that information for students, career seekers, parents and career counsellors is current and showcases the exciting opportunities in both industries.

3 – National harmonisation

A common point of discussion throughout the forum was the negative impact that differing and sometimes conflicting policies, regulations, funding and licensing regimes across states and territories had on industry and education providers alike.

The desire to have a common approach to training policies, funding and licensing was rooted in the belief that greater economies of scale, collaboration, quality outcomes and value for money would be achieved across the training environment in both industries.

It was acknowledged that complete harmonisation in this space would be a complex and politically difficult outcome to achieve, yet stakeholders were clear that they wished AUSMASA to take an active role in representing industry wishes in this important policy area.

JSC Core Function(s): Industry Stewardship

Next Steps

AUSMASA is establishing a policy advocacy function as part of its Workforce Strategy and Industry Engagement team. This is due to be functional in Q1 of 2024. The policy team will assist the broader AUSMASA team in meaningful engagement across the Australian Government, states and territories in presenting the industry's desire for a harmonised approach to licensing, funding, and training regulations.

4 – Upskilling of existing workforce

The need for greater upskilling within the current workforce, including access to appropriate training programs and packages to do so, was identified as not only crucial for staying abreast of technological change but also as a retention strategy.

The emergence of new technologies, combined with ongoing workforce shortages, means that there is an important drive for the existing workforce to be skilled enough to understand the new technologies revolutionising the automotive and mining industries.

This strategic priority arose when discussing the upskilling of existing automotive technicians to work on EVs and process plant operators to adapt to new refining and processing techniques required for critical mineral beneficiation.

Discussed in conjunction with topics such as pathway programs and harmonisation, ensuring that industry and training providers have access to a range of accredited and up-to-date training programs was considered a key consideration for AUSMASA's future endeavours.

JSC Core Function(s): Training Product Development

Next Steps

AUSMASA will be proposing to undertake a comprehensive skills mapping exercise for key roles within the mining and automotive industries. This project would engage with industry to clearly identify current skills requirements and future skills requirements, creating 'personas' for both states.

The results of this skills mapping exercise would form the basis of proposed training product development activities.

5 – Map and index all available training courses

Discussions by stakeholders identified the benefit a comprehensive mapping of available training courses would have. Discussions focussed on both accredited and non-accredited programs, across multiple training packages, where applicable.

It was noted that original-equipment manufacturers (OEMs) in particular, offer a number of non-accredited programs, especially for the automotive industry.

Within the vocational education and training (VET) system, numerous qualifications, or skill sets, from other training packages may benefit the mining and automotive industries.

Understanding the full training landscape for both industries was seen as an important precursor to identifying pathway opportunities, consolidation opportunities and opportunities for accredited training options where only non-accredited options currently exist.

JSC Core Function(s): Implementation, Promotion and Monitoring

Next Steps

A project brief will be created supporting this priority and presented to both of AUSMASA's Strategic Workforce Advisory Panels (SWAPs) in Q1 of 2024.

6 – Advocate for, and pilot, solutions to policy and regulation inhibitors

Group discussion for this strategic priority was wide-ranging, with the possibility that some of the suggested actions may be best served as part of other strategic priorities identified in this plan.

Elements of the discussion focussed on the Certificate IV in Training and Assessment, noting that it is administratively heavy and misaligned with trainer preparation. Feedback indicated that the qualification should have a stronger focus on assisting future trainers to appropriately demonstrate skills and tasks. This aspect of the discussion may be better served as part of *Strategic Priority 12 – Attract and develop trainers*.

Skilled Migration was discussed in the context of international students coming to Australia, getting trained up and then returning to their home country rather than being encouraged to stay in Australia and contribute to the workforce. Broader issues of retention and immigration rules for staying in Australia ensued as was the belief that VET training for overseas students needed better promotion to compete with higher education attractiveness for overseas talent. The desire for AUSMASA to effect policy influence on skilled migration was expressed.

This strategic priority may be best served by being renamed to reflect its focus on international education and skilled migration.

JSC Core Function(s): Industry Stewardship

Next Steps

AUSMASA will be undertaking a greater exploration of skilled migration and international education as part of its 2024 Workforce Plan.

A project proposal for research into skilled migration and international education will also be put to both of AUSMASA's Strategic Workforce Advisory Panels (SWAPs) in Q1 of 2024.

7 – Broker equipment change collaboration

Training within the mining and automotive industries often requires practical skills application on current and suitable plant and equipment. Such equipment is invariably expensive and not always easy to source by registered training organisations.

Stakeholder discussion focussed on the negative impact on training when students do not have access to suitable plant and equipment on which to develop their skills.

Examples from stakeholders included access to electric vehicles for technicians, modern mobile plant equipment for mining applications and appropriate diagnostic tools and systems.

Closer collaboration between OEMs, industry and registered training organisations was flagged, with AUSMASA seen as a possible broker of such relationships. Appropriate funding for public providers was also discussed, ensuring that TAFEs remain current with industry trends.

Examples were discussed of mining providers donating equipment to TAFEs.

JSC Core Function(s): Industry Stewardship

Next Steps

AUSMASA's Industry Engagement team will commence discussions with key OEM's in relation to how this strategic priority can best be progressed.

8 – Increase speed to market

Both mining and automotive stakeholders expressed the need for the VET system to be more responsive to changing technological and industry needs, noting that some qualifications and/or units were routinely referring to outdated methods, technologies, or standards.

Industry expressed a desire to see new qualifications and changes to existing qualifications developed more rapidly, with close industry involvement and without compromising quality.

Equally, discussions touched on the need for training providers to be more flexible in their approach to both the content and delivery style of training to better suit individual stakeholder requirements.

Discussions around the new Jobs and Skills Council program and its aim of improving the speed of training product development was noted, as was AUSMASA's commitment to close and ongoing industry engagement and the mechanisms in place to take project concepts through to funded projects and beyond.

JSC Core Function(s): Industry Stewardship and Training Product Development

Next Steps

AUSMASA's proposed skills mapping exercise and targeted AUR review will provide key insights into required technological content and equipment, informing future work to ensure training packages are current, fit for purpose and faster to market.

9 – Post-trade specialisations

Closely aligned to the discussion around modular training programs was the desirability of scaffolding learning, with skill sets and appropriate higher qualifications (Certificate IV, Diploma, Associate Degrees etc) building upon solid and well-designed core qualifications.

Some examples of these discussions included whether core elements of a light vehicle mechanic apprenticeship, such as specialised diagnostics, would be better suited as a skill set or part of a post-trade qualification.

There was general discussion around the need to keep core apprenticeship programs free from niche or specialised skills.

The opportunity to explore the development of new training products such as associate degrees or the promotion of innovative training programs such as degree apprenticeships was also discussed.

JSC Core Function(s): Training Product Development

Next Steps

In addition to AUSMASA's proposed skills mapping exercise, a project proposal for a careers mapping exercise will also be completed. The careers mapping project will build upon the insights gathered by the skills mapping project to identify pathways into, through and beyond the VET system in support of both the mining and automotive industries.

Importantly, the outcomes of the careers mapping exercise will provide insights into proposed works around higher qualifications and new products such as associate degrees and degree apprenticeships.

This proposed project will be presented to both of AUSMASA's Strategic Workforce Advisory Panels (SWAPs) in Q1 of 2024.

10 – Attract and retain trainers

Both the mining and automotive industry stakeholders at CMEV expressed their concern about the difficulty faced by training organisations attracting and retaining experienced and qualified trainers.

The inability to do so puts many other strategies identified in this plan at risk.

Barriers identified included the gap in pay for trainers, compared to what they can earn if they remain 'on the tools', the workload expected from trainers in under-staffed training organisations and the complexity of the TAE qualification.

Discussions were had around programs to attract tradespeople and other qualified workers to a career in the education system, with suggestions ranging from financial incentives, mentorship and greater career guidance being circulated. The opportunity to encourage tradespeople close to retirement to consider a move into the training sector was also discussed as a way of both retaining industry knowledge and providing a longer transition into retirement.

AUSMASA's role as a potential conduit between industry, government and the training sector was identified as a potential launching point for more in-depth exploration of this issue.

JSC Core Function(s): Implementation, Promotion and Monitoring and Industry Stewardship

Next Steps

Trainer shortages and the impact on both the mining and automotive industries will be a subject of focus in AUSMASA's 2024 Workforce Plan, with proposed solutions developed as part of this process.

The Mining and Automotive Skills Alliance (AUSMASA)
is a Jobs and Skills Council funded by the
Australian Government Department of Employment and Workplace Relations.

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