In response to the call for a more innovative culture, CMBI have previously undertaken the development of the Innovation Diagnostic Tool. This tool enables diagnosis across METS/mining firms of elements of an innovative culture to identify areas of performance and areas of development. As per the below model, areas of importance are related to organisational and work unit innovation values, leader behaviours, resources, processes, and an innovative climate.

More recent work related to increasing innovation culture in METS/mining firms has focussed on identifying the strategies that can be used to promote innovation.

**Investigating Strategies to Increase Innovation Culture**

Interviews were undertaken with eight key informants from the mining/METS sector to identify strategies that facilitate an innovation-supportive organisational culture. All participants were male and held senior roles - five at CEO or GM level, and three in senior technical direction/optimization/user success roles. Interviews were recorded (with consent) and field notes taken.

**Leadership Values and Behaviour**
- Leadership is more than rhetoric: communicate and embody organisational values.
- Encourage a belief in change and allow employees to be part of the change.
- Be credible, consistent, open, transparent, honest, trustworthy, and a good listener.

**Collaboration**
- Partner with, and learn from other organisations inside and outside of the industry.
- Align siloed groups in the organisation into a commonality.

**Creativity/ Openness**
- Be willing to take risks; promote a culture of exploration.
- Don’t accept conventional thinking; question and challenge the status quo.

**Organisation**
- Have a coordinated strategy developed collaboratively with senior leadership.
- Integrate innovation strategy, including measurable goals and targets, into a business plan that is shared throughout the organisation.

**Risk**
- Accept a level of risk and apply good risk management, using measurement tools that are contemporary and relevant to the innovation being implemented.

**Training**
- Educate leaders to improve knowledge and comfort with leading change.
- Promote lifelong learning/training for employees to help adapt to change.

**Teams**
- Build an innovation team with an eclectic, diverse mix of people.
- Ingrain the team with a mentality of ‘ownership’ of innovation projects.

**Governance**
- Streamline governance and corporate regulations; gain board support.
- Minimise hierarchy and flatten reporting structures.

**Implementation**
- Create minimal disruption, bring in innovation gradually.
- Let employees see the innovation in action.

**Measures**

Interviews were based around four semi-structured questions about drivers and barriers to the development of an innovation-supportive organisational culture. Key themes were identified from the interviews.
We found significant synergy between findings in the literature and those from qualitative interviews. Both supported the crucial role of the mining/METS frontline leaders (CEO or MD and boards) in actively creating the right conditions for innovation, including setting the strategic direction, values and goals, developing the organisational culture, and providing the structure and resources to support innovation. Leader’s personal attributes such as credibility, trustworthiness, transparency, openness and communication, as well as their ‘innovation mindset’ (ability to think outside of the box, promote a culture of exploration and shared vision and encourage a belief in change) were viewed as important contributors to achieving innovation objectives.

There was also concordance on the key process and resource strategies to support an organisational discipline of innovation. These include:

- **Developing a coordinated innovation strategy** in conjunction with those (usually middle management and mine managers) who are at the forefront of operationalising innovations and maintaining production KPIs; integrating the innovation strategy into the organisation’s business plan, sharing the plan with the entire organisation, and developing measurable goals and targets which are reviewed and tracked annually.

- **Allocating sufficient financial and human resources**, including setting a realistic budget for innovation, creating a diverse and multi-skilled team of innovative thinkers including young enthusiastic engineers and designers to help generate ideas, ‘user-success’ groups to liaise and problem-solve with potential end-users, and ‘change agents’ to assist with managing and implementing change.

- **Flattening the reporting structure in the organisation**, removing rigid hierarchies and silos that inhibit the free-flow of communication, and facilitating a low friction environment where good thinkers are rapidly connected with a specific problem.

- **Collaborating with, and learning from, other groups within and outside the mining/METS sector**, developing collaborative, rather than purely transactional relationships with the existing supply chain and increasing incentives for suppliers to find the best, tailored solution, not just the lowest cost solution. Aligned with this is the streamlining of restrictive IP regulations to remove competition and allow information to be shared between organisations at a much higher level.

- **Accepting, sharing and managing risk**, including partnering with other organisations/industries/research centres to share risk (especially for sector-wide transformative changes), choosing the appropriate tools to measure and manage risk, adjusting production KPIs to allow some downtime during an innovation test or implementation phase, and learning from the experience of an innovation failure.

- **Training and upskilling the leadership team to increase their ability to manage change**, and cross-skilling of workers at other organisation levels to avoid over-specialisation and ‘blinkered’ focus and help them to adapt to change.

- **Creating deliberate spaces and opportunities for sharing ideas**, such as email suggestion boxes, open group brainstorming sessions, internal competitions, or even paid time to generate ideas. Leaders should be receptive to all ideas and provide thoughtful feedback, including on reasons why ideas may or may not be able to be operationalized.

- **Providing a structured forum for recognizing and rewarding innovative ideas or behaviour**, and for sharing and celebrating successes (no matter how small), which focus on behaviours in addition to outcomes. Importantly, workers should be insulated from career or personal ramifications should KPIs not be met after an innovation is implemented and/or does not live up to expectations.

- **Acknowledging and addressing employee concerns** which could negatively impact on an innovation-supportive culture, including fear of potential disruptions to workplace relationships, and issues with trust, job satisfaction, labour retention and operator wellbeing.