Company-level Strategies
The Industry Development Framework locates METS companies within a METS Technology Ecosystem. The ability to innovate and grow is shaped by drivers and barriers identified by CMBI Program 1: Technology Ecosystems. Companies within the ecosystem have access to two CMBI programs: Program 2: Organisational Culture and Change and Program 3: Business Models and Business Model Innovation in METS firms - that present strategies to overcome barriers and enhance their ability to innovate and diffuse new technology to the mining industry and beyond. Details about CMBI Programs 1, 2 and 3 can be found on CMBI’s website.

Region-level strategies
A well-coordinated Technology Ecosystem can enable sector growth, and industry diversification and transformation. Drawing on research conducted for CMBI Program 5: Supply Chain Coordination Policy, the Industry Development Framework identifies strategies that can be implemented by government, the METS sector, the mining industry and research and training organisations to create an innovative, diversified, adaptive future-oriented exporting METS sector.

Government
- Establish an autonomous government body with long-term funding and authority to:
  - Collaborate with METS stakeholders to develop a strategic vision and policy.
  - Coordinate METS-related policies, activities and funding across all levels of government
  - Create a single portal to METS-related government websites
- Address barriers to regional advancement masked by the strong regional economy
- Address infrastructure barriers - e.g. roads, mobile reception, digital access
- Develop a framework for IP allocation for participants in collaborative groups

METS industry
Establish a single METS/mining organisation to:
- Collaborate with government and industry to develop strategic vision and policy
- Foster entrepreneurship, innovation and collaboration through workshops, seminars and networking events
- Facilitate fora to identify innovation opportunities and the formation of collaborative project teams
- Create a Bowen Basin METS "brand", quantify the sector, conduct market analysis, identify unique capabilities and market opportunities
- Market the sector and region rather than individual companies
- Connect with national and global sectors and industries matching current and potential METS sector capabilities
- Negotiate with government and the mining industry on behalf of METS businesses
- Liaise with industry and training organisations to address future workforce skill requirements
Mining Industry

- Encourage procurement teams to:
  - Maintain and strengthen relationships with communities, METS companies and onsite personnel
  - Strengthen local content purchasing policies, taking local expertise into account
  - Develop KPIs that consider suitability, durability, longevity and upgradeability of products being purchased
  - Discuss technology challenges and innovations in industry fora
  - Respect and protect METS companies’ Intellectual Property
  - Collaborate with METS companies to train sufficient apprentices for future requirements
  - Allow METS apprentices onsite and consider a scheme where METS apprentices spend time working with mining companies
  - Establish sector-wide compliance requirements e.g. vehicles, personal protective equipment
  - Subsidise the salaries of trade teachers who are often lured to highly paid mining jobs.

Research and training organisations

Research organisations

- Liaise with METS organisation to match researchers and research students with collaborative projects
- Actively participate in workshops, networking events and collaborative project teams
- Prioritise research relevant to the local METS and mining contexts and present research ideas at local METS and mining fora for feedback
- Create a single research sector portal so METS companies can find researchers in specialised fields across Australia

Training organisations

- Ensure courses are locally relevant and available & address the needs of workplaces of the future, especially in digital technology
- Arrange for METS companies to present problems for team projects and to participate as guest teachers/mentors
- Draw on retired tradesmen and professionals to teach, tutor and mentor students
- Investigate ways of retaining the large number of unsuccessful apprentice applicants who may leave the region

The implementation of these strategies can assist METS companies to be willing to and capable of innovating and collaborating to develop new products, diversify to other sectors and markets and will result in an innovative, diversified, adaptive future-oriented exporting METS sector.
# METS Technology Ecosystem

**Program 1 - Technology Ecosystems**

Places METS companies in a technology ecosystem in which the ability to innovate and diffuse technology is dependent upon broader system ecosystem factors that induce or inhibit the development and diffusion of METS technology.

## Company-level strategies

**CMBI Programs 2 and 3 enable METS companies to become more innovative and capable of collaborating with others to develop and commercialise products and to enter local and global markets**

**Program 2 - Organisational Culture and Change**

Identifies factors that characterise innovative organisational culture and foster innovative outcomes and provides METS firms with strategies to bring about organisational change.

**Program 3 - Business Models**

Provides a benchmarking tool to enable METS firms to identify gaps in their business models and make changes to increase their ability to innovate, collaborate and survive in a changing environment.

## Region-level strategies - Programs 4 and 5 Supply Chain Coordination Policy (Government and Industry Associations)

**Government**

- Establish an autonomous government body with long-term funding to:
  - Collaborate with METS stakeholders to develop a strategic vision and policy.
  - Coordinate METS-related policies, government activities and funding opportunities.
  - Create a single portal to METS-related government websites.
  - Address barriers to regional advancement masked by strong regional economy.
  - Address infrastructure barriers - e.g. roads, mobile reception, digital access.
  - Develop a framework for IP allocation for participants in collaborative groups.

**METS industry**

- Establish a single METS/mining organisation to:
  - Collaborate with government and industry to develop strategic vision and policy.
  - Foster entrepreneurship, innovation and collaboration through workshops, seminars and networking events.
  - Facilitate fora to identify opportunities for innovation and the formation of collaborative project teams.
  - Create a Bowen Basin METS “brand”; quantify the sector, conduct market analysis, identify unique capabilities and market opportunities.
  - Market the sector and region rather than individual companies.
  - Connect with other national and global sectors and industries matching current and potential METS sector capabilities.
  - Negotiate with government and the mining industry on behalf of METS businesses.
  - Liaise with industry and training organisations to assess and address current and future workforce skill requirements.

**Mining industry**

- Encourage procurement teams to:
  - Maintain and strengthen relationships with local communities, METS companies and onsite personnel.
  - Strengthen and prioritise local content purchasing policies, taking local expertise into account when awarding contracts.
  - Develop KPIs that consider suitability, durability, longevity and upgradeability of products.
  - Discuss technology challenges and innovations in industry fora.
  - Respect and protect METS companies' IP.
  - Collaborate with METS companies to employ and train sufficient apprentices for future requirements.
  - Establish sector-wide compliance requirements e.g. vehicles, personal protective equipment (PPE).
  - Subsidise the salaries of trade teachers who are often lured to highly paid mining jobs.

**Research and training organisations**

- Research organisations:
  - Liaise with METS organisation to match researchers and research students with collaborative projects.
  - Actively participate in workshops, networking events and collaborative project teams.
  - Prioritise research relevant to the local METS and mining contexts and present research ideas at local METS and mining fora for feedback.
  - Create a single research sector portal so METS companies can find researchers in specialised fields across Australia.

- Training organisations:
  - Ensure courses are relevant and available locally & address the needs of workplaces of the future, especially in digital technology.
  - Arrange for METS companies to present problems for team projects and to participate as guest teachers/mentors.
  - Draw on retired tradesmen and professionals to teach, tutor and mentor students.
  - Investigate ways of retaining the large number of unsuccessful apprentice applicants who may leave the region.

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**Innovative, diversified, adaptive future-oriented exporting METS sector**

METS companies willing to and capable of collaborating with METS and mining companies and researchers to innovate, develop new products, diversify to other sectors and enter global markets.