

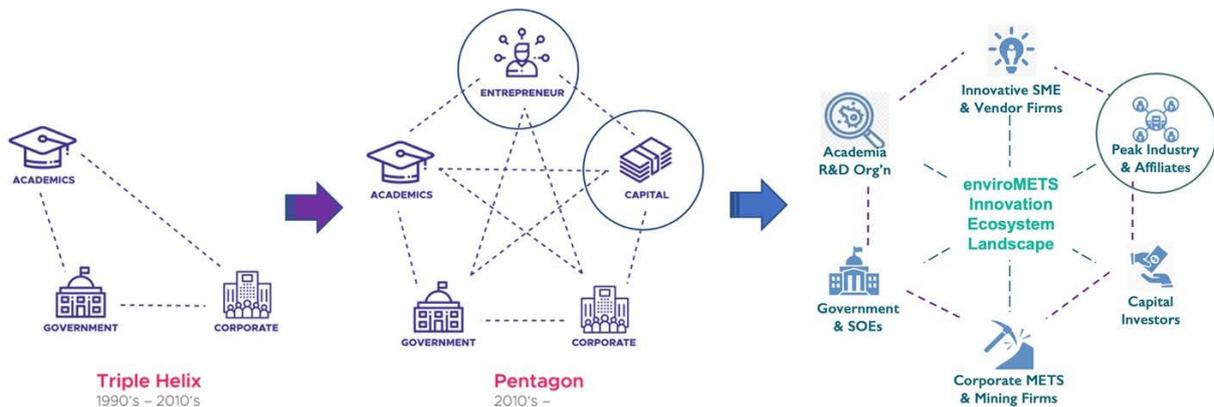
We've probably moved on from calling an Innovation Ecosystem a "Cluster" because they now involve more parties doing more things across a wider geography. However, all active participants remain bound to a common collaborative approach to finding innovative and sustainable new solutions to increasing complex industry challenges.

Simply put, industry clusters are **regional concentrations of related industries**. They consist of companies, suppliers, and service providers, as well as government agencies and other institutions that provide education, information, research, and technical support to a regional economy.

## Groups Benefiting

The original 'Triple Helix' model of interacting universities, industries and governments gave rise to intermediary institutions, such as technology transfer offices and science parks. That's since evolved with the recognition that entrepreneurs and capital are also an essential part of driving growth and increasing value to the ecosystem participants, (Ref: [TCL.org](http://TCL.org) and others)

The evolved 'innovation pentagon' model is shaping ambitious political and industrial thinking around solving industry-level challenges and opportunities.



Ref: [StrategyTools.io](http://StrategyTools.io) and [enviroMETS.org](http://enviroMETS.org)

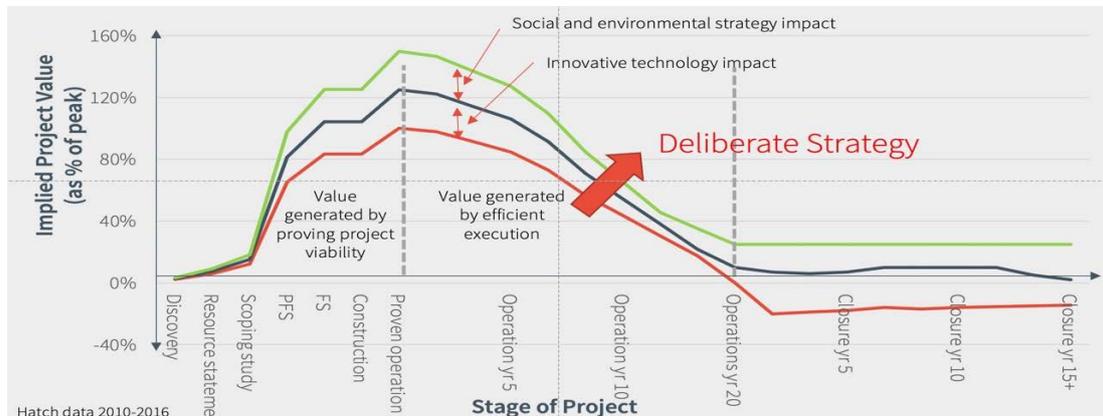
In developing its understanding of the **enviroMETS innovation ecosystem landscape**, a sixth group, Industry Peak Bodies and Affiliates, was recognised to engage, as they have an 'associated' role, and that their actions can hinder or help successful industry collaborations.

Benefits for each group might be described as;

- Innovative SMEs & Vendors: *Developing more capable innovative companies who will grow by participating in increased collaborative business opportunities on new projects with researchers, industry, and investors*
- Academia & Research Organisations: *Connecting researchers via events and project collaborations with innovative SME vendors, mining corporates and money.*
- Government & SOEs: *Creating more valuable and sustainable outcomes for mining affected land that support government policy for industry, community, and the environment.*
- Corporate METS & Mining Firms: *Initiating, supporting, and developing valuable innovative recommercialisation and repurposing options that create a net best benefit for stakeholders.*
- Capital Investors: *Attracting capital for mining affected land redevelopment that offers a sustainable de-risked ethical / ESG investment dividend.*
- Peak Industry & Affiliates: *Building a trusted skilled go-to collaborative partnership to support improving the net better value outcomes from end of mine life operations.*

## Deliberate Strategy to Improve Project Value

enviroMETS mission of finding new innovative and sustainable ways to make mining impacted land valuable to its future custodians, looks to create this economic value via a strategy of pursuing multi-facet technical, social, and environmental opportunities.



Ref: HATCH.com / Improved Project Value, across technical, social, and environmental (reproduced with permission).

This approach leads the innovation ecosystem to develop and embed several core go-to expertise streams. The following are provided by, and for, the active participants.

1. Mine Lifecycle Planning
2. Geochemistry & Mine Affected Water Management
3. Reprocessing Mine Wastes
4. Geotechnical Tailings Handling & Storage
5. Mine Closure Management Alternatives
6. Governance, Regulations & Policy Frameworks

### Achieved by:

- **Recommercialisation** with new technology
- **Repurposing** into a second life enterprise
- **Remediation** using ideas from other industries
- **Researching** public private land use options

## enviroMETS Services Offering

A successful ecosystem must have a strong core organisation, offering relevant services, and maintaining close contact to its participating companies and other actors.



Ref: [EU Clustering Excellence](https://www.eu-clustering-excellence.eu/) and [enviromets.org](https://www.enviromets.org)

enviroMETS undertake and coordinate these services around commercial projects that directly benefit the collaborating participants. With a spin-off gain across the entire ecosystem.

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