**OENG1115 Innovation and Technology Management Lecture 3:**

Strategy:

1. Businesses develop strategies to build defenses against competitive forces or to open up an area where the forces are weakest
2. Being innovative and introducing new technologies is one effective strategy to compete and win.
3. Innovation and technology Management: A plan to achieve an outcome focusing on how innovation and the application of new or existing technologies can support the business achieving its goals

Six Elements of Innovation and technology Strategy:

1. Setting horizons
2. Industry forecasting
3. Technology positioning technology availability
4. Appropriate technology
5. On-going management of the technology

Setting Horizons:

1. Understanding the future business

Diversification requires: Diversification of the Australian automotive supply chain post closure of assembly

1. Innovative culture
2. Agility
3. New skills
4. New technologies
5. New business models
6. Capital
7. Markets

Forecasting:

1. Considering the idea of what does the future of an industry segment look like?
2. Consider the future is not predetermined
3. Consider that future ids not predictable
4. Consider that future outcomes can be influenced by our choices in the present

Mega Trends:

1. Overall trends that shape our future
2. Comprised of many trends:
3. Technological
4. Societal
5. Environmental
6. 6 things that affects Mega Trends (CSIRO):
7. More from less
8. Going Going gone
9. Silk highway
10. For every young
11. Digital twin
12. Great expectations

Government Priorities influence the future:

1. Key policies
2. Compliance to global accords
3. Regulations: safety, environmental
4. Financial settings:
5. Taxation
6. R&D task

How will we compete:

1. Linked to the overall business plan
2. Timing is key
3. How close to the technology edge is the company comfortable
4. Useful to consider =stakeholders appetite for new innovative technologies
5. Consider SWOT analysis

To lead or not to lead:

1. Leading requires resources and time to develop it
2. According to porter the technological follower take advantages

* Irreversibility’s afflicting the leader by moving first
* Potentially lower cost of adapting rather than creating technology change

1. Entrepreneurial companies

*\*Consider technology adoption*

Technology Roadmap:

1. Industries utilize technology roadmaps as a mechanism of planning for the future
2. Provide a strategy to reach company goals
3. Guides R&D plans or Technology/capability acquisitions, identifies key gaps and vulnerabilities
4. Significant due diligence behind each point on the map

Access to winning technologies:

1. Once the firm has identified the technology requirements it must be sourced
2. Internally sourced

* Develop th3 technology in house and protect it
* Conduct research and development

1. Externally sourced

* Purchase it, hire new staff, adapt technology form other industries, utilize expired patents

1. Partner: joint venture, collaborative rese4arch
2. Need to complete a technology audit

Strategies to De-risk:

1. Pilot runs, simulat6ions/modelling
2. beta testing
3. test the market prior during and/or following the development pf technologies
4. Voice of costumer

* Could be internal costumer as well as external

1. Need to have written process, staff shadowing,