
APS1012 Management of Innovation – Final Team Projects, Summer 2013 (10-day class)**The Natural World and Engineering**

Practically, nature takes care of itself and ensures that everything remains as it is. When something goes wrong it triggers action to either fix the problem or find a way around it in an innovative way with zero waste and maintenance. From groups of molecules to the entire ecosystem, the inventions of nature are lean, green and made to meet its specific requirements. With billions of years of inventing experience, nature, the ultimate lab, knows what works, what is appropriate, what survives and what lasts. Nature therefore provides hidden messages that could be used as a source of inspiration to innovate bold and far-reaching ideas.

The core concepts of innovation management are examined including dimensions of innovation, innovation diffusion, lean system development, transformational change, application integration, decision making and dealing with uncertainties. Through case studies that illustrate examples where nature has implemented the core concepts of innovation management, it can be seen that a study of nature reveals novel innovation management methodologies. To put it differently, this report shows that principles of nature are worth copying in order to design and build just about anything.

It was found that a business or any other initiative inspired by nature is usually resilient, optimizing, adaptive, systems-based, values-led, and life supporting. That is to say, it treats disturbances and threats as opportunities, constantly improves function, senses and responses to change effectively, integrates synergy, and knows what's important and what works. Companies interested in implementing success strategies should follow the inspiration of nature and living systems, and perform transformation through values-based leadership and stakeholder empowerment using the catalysts of education, innovation, inspiration and collaboration.