APS1012 Management of Innovation – Final Team Projects, Winter 2011

Avoiding Innovation Failures

This project establishes a set of lessons learned from innovation failures, presented in the form of recommendations to avoid such failures from occurring again. Despite technological advances, engineering-related innovation failures are still a significant danger to society. Three recent cases of innovation failure are presented: The BP oil spill, the Columbia space shuttle disaster, and the Chilean mining accident. A fourth case study about the diffusion of the black box is discussed; while not necessarily an innovation failure, this case illustrates that an innovation may initially face resistance yet ultimately find success. The background of each case is presented, along a description of the failure and subsequent findings, and recommendations specific to each case.

Two key lessons learned from innovation failures are the importance of integrated organizations, and the need to involve engineers in the development of public policy. General recommendations about good communication, learning from past mistakes, and continuous improvement are also made.