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Managing Innovation

Key Points

- x Innovation is a requirement for sustainable, profitable growth.
- x Sustained innovation requires a robust innovation culture.
- x For an innovation culture to exist and thrive an appropriate risk appetite must exist.
- x An effective innovation culture tolerates failure as long as it occurs quickly.
- x An innovation culture must encourage the transformation of creative ideas into larger, more significant and compelling creative visions.
- x Tactical elements that foster and support sustained innovation define a recommended innovation infrastructure.
- x Recognize that innovation is a team sport, all of us know more than any of us.

An innovation culture must encourage the transformation of creative ideas into larger, more significant, and compelling creative visions. The culture must encourage people to think bigger and not focus on incremental improvements. Speed to market is important and an innovation culture requires an understanding that fast and good is often more successful than slower and better. Consider the path to the ultimate vision to be a series of "sprints" with usable improved versions of the innovation at the end of each sprint.

To be sustaining and growing, an innovation culture in effect demands stories about people who have transitioned creative ideas into creative visions and, importantly, implemented them to become valued innovations.

An innovation culture recognizes the power of the team; that "all of us know more than any of us;" and that the universe of problem solvers extends well past the boundaries of the corporation.

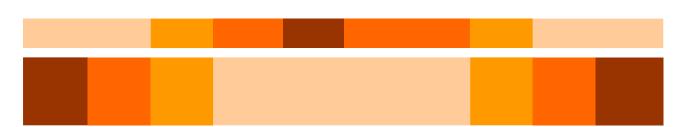
Table 1 outlines some common barriers to innovation from both a company and individual perspective.

Table 1 - Select Common Barriers to Innovation	
Company	Individual

Inadequate leadership – if leadership does not

Table 1 - Select Common Barriers to Innovation

 1. Business
 2. Networking structure/ value
 3. Enabling Process assembled
 4. Core Process proprietary that assembled



Prioritize innovative ideas based on potential value to clients and the business and micro-finance select ideas for further refinement. View this process as a "seed fund ", planting what you may be able to harvest in the future. Evaluate and re-prioritize before investing more. The innovation process is much like a funnel, and it is essential to fail fast.

Provide the space, equipment, and tools to both innovate and incubate new ideas. Early in the author's career, innovation and incubation often occurred around the water cooler. Over the years this has morphed, and Table 2 describes some historical and modern-day innovation and incubation "watercoolers."

Table 2 -

Table 2 - Innovation and Incubation Watercoolers over the Years

and challenge. T

chain (client, primary supplier, component and subcontractor, materials providers, labor), as well as from nontraditional perspectives (patent attorney, biologists, academia).

Deploy multi-perspective teams in a well-structured way (Big Dig proposal - design

"BIG DIG" PROPOSAL STAGE DESIGN CHARETTES

The sheer scale and complexity of Boston's Big Dig created opportunities for technical innovation and differentiation. Creating that overwhelming sense of an already engaged team led to assembling 40 experts from across all firms on the bidding team in Boston for a full week.

Organized into five teams, they generated dozens of potential innovations and outside the box solutions. Essentially all of these found their way into aspects of the proposal to demonstrate serious engagement and interest. Of these dozens of innovations, five were selected, covering all key aspects of the project. These were highlighted in depth in our executive summary and, more importantly, became the backbone for the presentation storyboard and key elements in the constructed project. Innovative approaches included:

Column pickup vs. footing pickup of the existing Central Artery

Load transfer and site stabilization to large scale use of slurry walls

Immersed tunnel for crossing Ft. Point channel

"Utilidors" to facilitate relocation of utilities including crossing the Central Artery right-of-way Cable-stayed bridge versus the then more traditional option

charrette, *see box*) in creativity sessions as part of proposals, projects, and structured innovation campaigns.

Respond to the periodic sudden demands for innovation associated with off-normal events or situations.

Use " on demand " multi-perspective innovation teams. Examples of off-normal events may range from unanticipated direction challenges, failed equipment or structures, crane and bridge failures, or post-disaster response in an uncertain and potentially dynamic environment.

Conduct innovation campaigns focused on identified, significant, existing challenges or opportunities identified as part of periodic structured opportunity analysis. These campaigns reinforce the culture of innovation and act to confirm and strengthen the innovation infrastructure.

Strengthen the focus of innovation campaigns by soliciting client input on their longer-term needs and expectations, identifying gaps that represent opportunities for innovation. Put in place a well-structured intellectual property (IP) management team that is aware and acting in concert with the innovation process. This IP management team should be recommending and implementing IP protections consistent with a well-developed IP management strategy, both defensive and offensive.

Innovations are not monolithic. A spectrum of innovation types exists, broadly grouped as finance, process, offering, and delivery. Innovation requires both ideation and implementation and sustained innovation requires a robust innovation culture.

For an innovation culture to exist and thrive, an appropriate risk appetite must exist. It must tolerate failure as long as it occurs quickly and the activity can be described as a "fail forward." It must encourage the transformation of creative ideas into larger, more significant, and compelling creative visions.

Common barriers to innovation from both a company and individual perspective are outlined and tactical elements that foster and support sustained innovation are defined. Key is prioritizing innovative ideas based on potential value to clients and the business, which has been shown to be two percent of innovations provide 90 percent of value.

Recognize that innovation is a team sport, and it must put runs on the board.