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STEVENS ALLIANCE FOR TECHNOLOGY MANAGEMENT

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## Roundtable Meeting Take-Aways

# TURNING INNOVATION INTO A POWERFUL BUSINESS STRATEGY:

## Overcoming the Obstacles to Innovation

The July 12 Roundtable meeting, held at the Infineum Business and Technical Center in Linden, NJ, focused on methods and practices for surmounting the numerous barriers to innovation. Facilitators were Larry Gastwirt of Stevens and Ron Eilertson of Teknor Apex. This was the third in a series of Roundtables aimed at unlayering the broad subject of innovation. The topic, and the facilitators, evoked a most vigorous results-oriented discussion. As a result of the interest, the assembly decided to continue discussion of this important topic at the September 20th Roundtable meeting.

Larry drew from the learnings of past Roundtables and Conferences to lead a discussion of overcoming innovation barriers. Employing the definition of innovation as the creation of value through the implementation of new ideas, which previous discussions regarded as the best to use, he noted that different obstacles arise throughout the various stages of the innovation process. He also pointed out that barriers differ in impact depending on the risk associated with the specific innovation. For everything summarized below, Larry pointed out that Leadership's role is to ensure that all functions of the entity encourage innovative behavior in all employees. Indeed, most of the means discussed for overcoming barriers to innovation fell under the responsibilities of Leadership.

Larry used six stages of the innovation process to describe the principal barriers

and means for overcoming them. (He pointed out that, per Tony LeStorti's presentation at the last Roundtable meeting, one could add an up-front stage 0 to reflect a Preparation stage, during which leadership establishes and communicates the strategic intent of the business and the broad criteria for success -- the "wallpaper" surrounding innovators that sets the boundaries for innovation).

The following is a brief overview of the key means to overcome the impediments to innovation, by stage -- his PowerPoint presentation, available from the SATM office, provides more details. Included in this presentation is a summary of the findings of the SATM study on innovation.

#### 1. Generation and enrichment of

a. Adopt and effectively communicate a

clear innovation strategy.

- b. Instill innovation norms within the organization.
- c. Apply practices associated with highly innovative organizations as reflected in the SATM Innovation Model studies specifically, the practices associated with strategic drivers, leadership, and support systems for idea generation. d. Use "Idea Mining" techniques, referring to Steve Wiet's presentation at the 2005 Alliance Conference. (It was suggested that this may be a good Roundtable topic for a future meeting).

### 2. Collection and preliminary assessment of ideas

- a. Install or renovate formal idea collection process and use it!
- b. Maintain market knowledge function.
- c. Apply practices to enhance "collaborative" behavioral dimension (from SATM Innovation Model results).

#### 3. Identification and prioritization of specific opportunities

- a. Commit the necessary resources (correlated with study outcomes of Koen/IRI).
- b. Develop specific screening criteria and apply portfolio management to shelve poorer projects - especially for the lower risk activities.

#### 4. Refinement and development of specific opportunities

a. Commit dedicated resources.

- b. Remove resources from poorer projects earlier.
- c. Conduct comprehensive market and technology analyses.
- d. Define detailed business cases, reflecting risk appropriately (as described by Peter Koen, Stevens, in chart from SATM 2005 conference).

#### 5. Prototype testing and refinement

- a. Employ quick trials, refinements and reiterations (per Lynn and Reilly).
- b. Research to understand potential markets and identify lead customers.

#### 6. Market introduction/ implementation

- a. Carry out quality processes to perform the up-front activities.
- b. Maintain competitive intelligence function.
- c. Create deeper consumer knowledge (a la Wiet).

The last portion of Larry's presentation was a summary of other organizational practices that overcome barriers to innovation. He reviewed the five principles for overcoming barriers to "blockbuster" innovations, from the Lynn and Reilly research -assure intimate involvement of senior management, have clear, specific and stable goals, employ "lickety-split" improvisation, assure effective information exchange, and promote collaboration focusing on goals. His PowerPoint presentation includes the remaining organization practices of the SATM study, under the categories employee selection, employee development, reward and recognition systems, and multifunctional team structures.

Interesting comments, as part of the discussion of the above, were:

 Innovation barriers are for both what and how to do it. Although we discussed mostly the what to do, it was pointed that the tools must be provided to get the jobs done

- Culture is the biggest barrier to innovation, demanding a review and improvement of the behavioral norms associated with successful innovative organizations (see SATM Model)
- Innovation is a means to achieve business goals, not an end. The business defines the need and innovation is the means for achieving that end.
- The "formula" for innovation is a merger of business strategy (the direction of the organization) and the investment of resources (hard and soft) in innovation. Only innovation that is part of the business is a strategy. It is the combination of solid business practices, imagination and a culture that motivates innovation. A recent article in Business Week magazine supports this latter comment.
- In formal strategy development, the Opportunities and Threats of a SWOT analysis define the business and the Strengths and Weaknesses help define the needed innovation culture.

The second facilitator was Ron Eilertson of Teknor Apex. Teknor Apex had strategically decided five years ago that innovation—getting more ideas and getting new and better products into their marketplace—was of paramount importance to their continued success. They decided to use the SATM Innovation model and associated survey to identify focus areas for their efforts. One of Teknor Apex's business units, Vinyl Products, joined the technical group in participating in the survey in 2000.

The Innovation Survey looked at the four behavioral dimension categories as well as the seven management practice areas to compare themselves to best of breed companies from the Alliance database. Participants were also asked their opinions of the most important factors they believed could have the most dramatic effect on the outcome. Results of their analysis are presented in Ron's PowerPoint presentation, available from the SATM office.

One of their findings was that the technology function believes that they are more innovative than the business considers them. Using the gaps uncovered from the overall survey results, Teknor Apex established a focus team to prioritize improvement activities. Many of the team's recommendations to improve management practices have been, or are being, implemented. In the past five years, they have made progress in about half of the key areas identified, including leadership training and innovation reward and recognition programs. Some of their specific changes are summarized in Ron's presentation.

The top five obstacles limiting innovation at Teknor Apex today are:

- 1. Not enough good ideas
- We do not for the most part have a focused market approach for new product development
- 3. Our CTC (Stage-Gate) process is too complicated
- 4. We have too many projects for the available resources
- 5. There are few business goals for new product development

Teknor Apex has developed a detailed plan for the future to address their shortfalls. Among these is a transfer of responsibility for their new product development process to the business units, from the technical group. They have identified the need to have metrics for individual businesses and to better tie Marketing to the innovation process. They are attempting to do a better job of resource allocation so more effort can be placed on the highest priority projects. Both from the survey and their opinions, there still are too few good ideas getting into the pipeline. Teknor Apex believes they are good at implementation but not so good at the front-end. As a result, much more effort will be placed on the early stages of the innovation process.

