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## What's Really New About Innovation? Managing It (Part II)

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The question for firms today is not if they should innovate, but rather how they manage their innovation efforts. Georgia Tech's recently organized Enterprise Innovation Institute (EI<sup>2</sup>) believe manufacturers should borrow from their own playbook and apply their well-honed skill of process management to the innovation effort (see graphic below).

In short, firms should break down the innovation system into its core processes. The processes then need to be aligned with each other and with other relevant processes such as the organization's strategy and culture, then be allowed to operate without bureaucracy.

Staff at EI<sup>2</sup> suggest firms begin by analyzing three core processes of opportunity sensing, idea incubation, and opportunity development. They also believe manufacturers should expand the traditional view of innovation beyond product development to include new types of services such as systems integrators and new processes such as involving customers in product design. The first core process was discussed in the last issue; the second—idea incubation—is explored below. A subsequent issue will examine the third.

What is in an idea? That is the \$64,000 question. The idea could amount to nothing, someone else may have already capitalized on it, or it could be the basis for the next iPod. All ideas start with a couple of common attributes. First, they don't cost anything. Ideas come naturally to people, especially when they are presented with a problem or an opportunity. Second, unless one does something with the idea, it will simply fade away. Third, ideas grow when they are fed and challenged.

Many companies are finding that actively managing ideas has resulted in increased opportunities with existing customers and new markets. Enterprise Innovation Institute staff have observed that many successful companies view their collection of ideas as a potential asset. They implement processes to protect, develop, and capitalize on their ideas. Three basic processes include idea generation, concept development, and opportunity selection.

Idea generation is the first step in the process. The initial challenge is to routinely present problems and opportunities discovered through the external sensing of customers, markets, and technologies (see Part 1 of this series). The human brain is driven to problem-solving. In fact, one company shifted the time for problem-solving team meeting from Wednesday to Friday afternoons. The firm discovered that the mid-week teams would be immediately drawn back into their daily routines while the Friday team members had the weekend to come up with creative solutions. The company realized that some ideas are birthed in isolation--individuals often have their best ideas driving down the road or sitting in a boat, fishing.

Companies are also leveraging formal idea-generation methods such as brain-storming, fishbone analysis, and mind-mapping along with creative techniques such as TRIZ (Theory of Inventive Problem Solving, developed by Genrich Altshuller and used by companies such as Johnson & Johnson, Ford, Rockwell International, and Xerox); Six-Hat Thinking, developed by Edward de Bono to view problems from six unique and complementary perspectives to develop creative solutions and used by IBM, Federal Express, and DuPont; and SIT (Systematic Inventive Thinking, a process that utilizes five idea-generation tools). Simply doing a Google search on "idea generation" will overwhelm readers with methods and tools to increase ideas.

Idea generation in these models involves cross-departmental teams of employees to capitalize on diverse backgrounds and experiences. Suppliers and customers can provide additional insights and ideas. Many successful companies have developed a culture that promotes “blue sky” thinking without fear of rejection. In other words, the only bad idea is one not given a chance. [Note: Don’t hesitate to contact your Georgia Tech regional office to learn more about these techniques.]

The second challenge in idea generation is to place each idea into the incubator where it has a chance to grow. The old suggestion box on the cafeteria wall seems too dated and slow for today’s high-tech world. Many companies have added electronic tools for employees to access. Some companies even have a voice-mailbox employees can call to deposit an idea. The important thing is to catalog each idea in a format that captures the essence of the problem being solved and allocate people’s time to focus on ideas. The bottom line is that more is better. Remember, ideas are cheap.

Concept development is the second step in the idea incubation process. In short, this activity expands the idea by addressing the what, when, where, who, and how aspects. For example, one company had the idea that a different shipping carton would allow a customer to eliminate a pre-staging step in its process. Great idea, but how would a new carton affect the company’s own operation? Who would make the carton? What would it cost? What is the saving? What is it worth to the customer?

The output of concept development is really identifying the next layer of ideas necessary to push the idea along. The following key questions help move the idea to a concept:

- What is the product or service?
- What problem does it solve?
- Who are the logical customers and markets?
- What are the alternatives?
- Why should we offer this product or service (the strategy question)?
- Whom would you talk to (e.g., experts, customers) to obtain validation?

It is important to remember that this is still at the idea stage, not the detailed engineering stage. The answers to the development questions can be greatly enhanced by tapping into several people inside and outside the company.

Opportunity selection is the final stage of the idea incubation process. Those ideas that are ready to hatch need to come out of the incubator and be fully evaluated and tested. This is when the company must spend discretionary money on engineering studies, market feasibility analyses, and production capabilities. Most companies have limited resources for this level of opportunity development, so the selection process is critical. Below is a decision matrix that could serve as a foundation for the selection process. Each company should customize its matrix based on its business strategy. The goal is to have a process that everyone in the organization understands and follows.

*(Note: Opportunity development will be covered in a future issue.)*

