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UNLOCK CREATIVITY WITH "ACTIVE" IDEA MANAGEMENT

"Idea generation is everyone's job and no one's responsibility," wrote Robert Cooper in describing how no one individual in a company or business unit is specifically in charge of idea generation, and often, when new ideas surface, no action is taken (1). This lack of action could be due to the absence of a process to evaluate the worthiness of one idea compared to others or, more often than not, to the difficulty of finding the right home for the idea.

One way of overcoming this problem is by using an idea management system. However, the classical idea management system as described in many books on innovation is little more than a suggestion box (2,3). Employees are encouraged to submit any idea that comes to mind. Typically, such programs don't get a lot of ideas after the

initial marketing phase is over; moreover, the ideas that are submitted are often unfocused and hard to process and are rarely developed or funded. As a result, the process of extracting value from employees' ideas is often inefficient and random.

Rather than leave ideas to chance, Bayer Material-Science has developed an "active" process that empowers its employees to be innovative and creative by sharing their ideas for specific focused business needs using a Web-based idea management tool named Idea Works.

The Event Approach

Ideas are only as good as your ability to make them happen.—John Galt, CEO of Idon Resources.

In 2003, a team co-led by two of us (Raymond Yourd and Valerie Patrick), with the Future Business group at Bayer MaterialScience, benchmarked idea management practices of several companies and evaluated a number of vendors offering idea management software. After considering building custom software, the team chose the idea management application called Idea Central by Imaginatik (4).

The Imaginatik software is not simply a suggestion box; instead, it is designed to run focused "events." An event is a defined problem or need around which ideas are captured. These events are posted on the Web portal, and participants can enter their ideas within the event page.

This approach solves several problems inherent in a passive "suggestion box" system. By definition, the ideas are focused because they have been generated to solve a specific problem. Additionally, they already have a home, which is the business unit that had the problem and sponsored the event.

After deliberating the pros and cons of event-based versus passive suggestion box idea systems, the Bayer team was convinced that this "active" approach was the best, and rolled out their own Idea Central portal, chris-

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Back To School

Introduction

What technologies or business opportunities can Bayer Polymers explore to reduce the weight of a school bus?

School bus manufacturers are challenged to meet GWRs (Gross Vehicle Weight Ratings) set by the government that, in turn, limit the options they can make available to their customers. In addition, school bus manufacturers incur cost when a customer returns a school bus for being over the GWR. An important objective for school bus manufacturers today is to take weight out of the bus to give more leeway to meet GWR and be able to introduce options such as additional seats in their buses.

Please click on the link under the heading 'Take the Challenge' for critical market and technical information. You are also invited to comment on other people's ideas and share your insights and experiences.

To submit an idea please press a 'New Idea' button. All ideas are traced and can be patented.

This event is sponsored by Barry Phillips and Bob Kumpf.

Take the Challenge

- [Start here with a 'Back To School' Information Kit](#)

Timeframe & Process

Start Date: 16 October 2003
End Date: 7 November 2003
Review Process: Ideas submitted will be judged based on the potential for weight reduction, technical chance of success, and business chance for success. Winning ideas will be evaluated by Industry Innovations as candidates for funded FOCUS projects.

Latest Ideas

- [Foam-filled tubular composites](#)
- [More Plastic in Rear Door \(all BPO\)](#)

This Web page features Bayer's "Back To School" Event

tened Idea Works, in the summer of 2003. Today, Idea Works is a global tool used at Bayer MaterialScience in North America and Germany and will soon be launched in Asia as well.

Anatomy of an Event

In our experience, there are many types of events that can be addressed by an "active" idea management system. Examples at Bayer MaterialScience include:

- Customer needs requiring technical solutions.
- New technologies looking for a new application.
- New applications of old products.
- New products for old applications.
- Process improvement.
- New market strategies.
- Continuous improvement and more.

Employees are regularly invited to an event by an e-mail providing them with a special Web link to an event Web page like that on this page. Their activities in the portal are rewarded with feedback e-mail replies. This allows the idea submitter to be acknowledged immediately for his or her input.

Each event has an assigned sponsor and a dedicated team to evaluate ideas and move the best ones forward, while keeping the idea submitter informed. All events are time-

bound, soliciting ideas for no longer than two to four weeks.

Success Stories

The idea we're looking for is never beyond our reach.—Earl Nightingale, author, radio host and philosopher.

Bayer MaterialScience has held 36 events, yielding more than 3,000 ideas in the database. Many ideas have led to patent applications, new market opportunities, product improvements, or technical solutions. An example of a new market opportunity is the "Back to School" event, which we describe later in more detail. Overall, 240 ideas were collected, offering solutions for a bus that would be safer, more durable and reliable but also lighter in weight. A rigorous evaluation procedure resulted in 14 viable, integrated concepts that would utilize Bayer MaterialScience materials. These concepts were ultimately presented to the customer.

Another successful application of Idea Works has been to bring the technical community together to solve specific technical challenges. In these types of events, scientists are often given the chance to apply their knowledge outside of their usual area of responsibility. An event held for our R&D group within the Coatings, Sealants and Adhesives Business Unit is an example. The quest was to modify the chemistry of an existing product so as to improve the product application properties and potentially increase sales. Scientists from various disciplines were gathered in a face-to-face brain-

storming session, in addition to on-line participation, that resulted in approximately 50 ideas being collected. Five of these ideas were highly promising and were moved to the laboratory evaluation phase.

A third success story was an event sponsored by the business development and marketing groups in the Coatings, Sealants and Adhesives Business Unit. This Idea Works event focused on an existing product, with participants looking for new applications or markets for this product in the areas of transportation, general industrial, construction, and maintenance. Scientists, engineers and designers shared their knowledge of customer trends and markets to identify opportunities, enabling Bayer to enter into a new market area with a new application in less than a year. The event resulted in 147 ideas from 47 idea contributors.

Key Elements of Idea Management

Bayer's experience with the idea management software to date corroborates the findings of other Imaginatik clients that there are five key elements contributing to the success of an idea management process:

- Have a clear business purpose for the ideation event.
- Understand the window of opportunity.
- Tap into a diverse pool of idea contributors.
- Look at challenges in a different way.
- Develop an idea through collaboration.

These five elements are described here, using the "Back to School" event for illustration.

The first element is having a clear business purpose for the ideation event, which is presented in the form of an enticing challenge and ensures contributors that there is a clear business purpose and sponsor to identify the best ideas. Following the ideation event, top ideas are

Five key elements contribute to the success of an idea management process.

assessed through a systematic evaluation process. Per experience, events with more clearly defined business needs or problems will result in more focused and valuable ideas. In this case, the business purpose was to identify Bayer technologies or business opportunities that could be explored to reduce the weight or cost of a school bus; the Future Business group was the sponsor.

The second element is timeliness, or understanding the window of opportunity for an idea to be considered. The school bus manufacturer had recently experienced expensive returns of one of its school bus models by a large school district, as the buses were determined to be over the gross vehicle weight rating. As a result, the manufacturer was searching for creative ideas to make its product more marketable by reducing the weight.

The third element is diversity of the pool of idea contributors, which should represent a broad range of experience and background—typically broader than what is intuitive. The event was open to a broad range of employees across all functional groups at Bayer MaterialScience, including R&D, business development and marketing.

The fourth element is perspective change, or looking at challenges in a different way. The school bus manufacturer provided Bayer with a bus to display at the company cafeteria while the event was running on the Web portal. Bayer employees were encouraged to examine the bus inside and out to trigger ideas for reducing weight and cost using Bayer technologies and materials expertise. The presence of the school bus not only triggered ideas but enabled a diverse participation by employees from a broad range of functions.

The fifth element is collaborative development, which helps a "seed" idea to be developed further. In today's global environment, everyone is impacted by innovation, inside and outside a company. The ability to share ideas can not only refine them but also lead to great new inventions. The built-in tools of Imaginatik's software enable employees to comment or build on ideas, as well as evaluate and score them.

About Bayer

Bayer MaterialScience LLC is one of the leading producers of polymers and high-performance plastics in North America and is part of the global Bayer MaterialScience business with nearly 19,000 employees at 40 sites around the world and 2005 sales of €10.7 billion. Our innovative developments in coating, adhesive and sealant raw materials, polycarbonates, polyurethanes, and thermoplastic urethane elastomers enhance the design and functionality of products in a wide variety of markets, including the automotive, construction, electrical and electronics, household and medical industries, and the sports and leisure fields. Our inorganic basic chemicals unit produces chlorine and related essential products for the chemicals industry.—**The**

Authors

The above mentioned five key elements are supported by Imaginatik's software through the following features:

- Easy-to complete submission forms to collect ideas. The forms can be tailored to the event, incorporating questions, or making multiple choice options available.
- A searchable database for storing ideas with quick accessibility to all ideas.
- A feedback mechanism for idea submitters. Once an idea is submitted, its author will automatically receive an e-mail of appreciation and thanks.
- A scoring/evaluation mechanism to screen ideas. This provides a fast and easy method of capturing, evaluating and reviewing all submitted ideas.
- An incentive mechanism to encourage use and acceptance. Participants earn points, similar to frequent flier miles for submitting ideas, commenting on ideas or providing result-oriented reviews.
- An interactive mechanism to build and comment on ideas and support collaboration.
- A routing mechanism to collect input from subject matter experts. Expert advice can be obtained independently, irrespective of geographic boundaries.

Web-based Face-to-Face Brainstorming

Many ideas grow better when transplanted into another mind than in the one where they sprung up.—Oliver Wendell Holmes

Combining a face-to-face brainstorming session managed by a facilitator with the Idea Management software has proven to be especially effective at Bayer MaterialScience. Typically, 10–15 participants attend and bring their laptops or connect remotely to a Web site and phone link that allows them to follow the live session in real time. A live presentation is given, followed by simultaneous brainstorming around the specific topic. Basic brainstorming rules apply, which means that no idea is a bad idea and no judging is permitted. Ideas can be entered directly into the event portal as they occur, stimulating discussions and enabling participants to view others' ideas in real time and build on them.

These facilitated sessions are highly productive and create a collaborative environment that can lead to up to 150 ideas in an hour. Once entered into the system, the ideas can be used as “seeds” for the event when it goes “live” to all registered users. Idea collection will be extended for two weeks and users are encouraged to visit the Web site link.

Lessons Learned

What makes an Idea Works event successful?

- In order to be innovative, you need to have a culture where ideas are exchanged freely and everyone feels they are part of the process.

- Sponsorship and support from upper management will promote employee participation.
- Clearly define and focus the business need or problem for the event.
- Not everyone wants to be part of the process—recognize those who do.
- Ideas need to be nurtured to turn into executable business strategies and products.
- Reviewing and choosing the best ideas is not a simple task. Be creative and flexible, as you need to adapt the process to fit the need.
- Lay out a path for implementation—assign responsibility and work within the team.
- Provide encouragement and feedback to idea submitters—communicate the top ideas and what happens to them. Without feedback or proper communication, an employee may no longer be motivated to submit another idea (5).
- Build incentives—either financially or through symbolic rewards.
- Stay connected with the business goals.

Unanticipated Benefits of Idea Management

After working with the software for three years, many more benefits have arisen than were originally envisioned. Idea Works offers a friendly way to interact and network internally with a group of people typically not closely connected. It builds a community of knowledge. Experts can be drawn into the process to evaluate or comment on ideas. Knowledge can be shared quickly, allowing people in different time zones and on different continents to feel firmly connected. The tool enables the collection of ideas from practically anyone, including scientists and engineers, and gives them the opportunity to be part of trend analysis and scenario planning for future business strategy development.

At Bayer, the innovation process is part of a corporate culture that flows throughout the organization. Ideas are not neglected or forgotten. Instead, they are part of a recognized “active” process to manage innovation. Collecting ideas through the Web-based idea management system is yet another tool that enables Bayer to promote aggressive strategies toward harvesting innovation (6). ◉

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