



Executive Summary  
March 15, 2006  
SDG eBriefing

Executive eBriefing®  
**Peripheral Vision**  
**Detecting Weak Signals Sooner**

Featuring: **Paul J.H. Schoemaker, Scott Snyder, Michael Mavaddat,  
David Wolter, Hylke Faber, Kirk Palmer, Jim Lang**

Following is a summary of the Executive eBriefing covering:

- The importance of reading and responding to weak signals
- Common barriers to reading weak signals and developing peripheral vision
- Steps that individuals and organizations can take to become more adept at identifying weak signals and acting on them.

*To review the complete eBriefing or to request a copy of the presentation,*  
<http://www.sdg.com/PeripheralVision>

## Peripheral Vision: Detecting Weak Signals Sooner

Speakers: **Paul J.H. Schoemaker**, Chairman & CEO, Decision Strategies International, Inc. (DSI)  
**Scott Snyder**, President & Chief Operating Officer, DSI  
**Michael Mavaddat**, Managing Director, DSI  
**David Wolter**, Partner, Strategic Decisions Group (SDG)  
**Hylke Faber**, Partner, SDG  
**Kirk Palmer**, Senior Engagement Manager, SDG

Moderator: **Jim Lang**, President & COO, SDG

### Overview

Along with those challenges and obstacles that are known, businesses are constantly barraged by weak peripheral signals of other influences. Many organizations don't detect these signals, or they simply ignore them. But some of these signals will eventually become intense enough to present opportunities or cause problems. By developing peripheral vision, companies can minimize the threats on the periphery and realize the opportunities.

To develop peripheral vision, companies must change their culture to remove the blinders that obscure signals and develop systematic processes to identify, classify, and act on peripheral signals. Detecting and acting on important signals can create competitive advantage.

### Context

SDG consultants were joined by Paul Schoemaker and members of his team from DSI. They discussed the concept of peripheral vision and how to achieve it.

### Key Learnings

- **Business leaders are often blindsided by events that started on the periphery.**

The periphery is defined as that which you are not paying attention to. Business leaders are often blindsided by peripheral events. These events start out as weak signals that are often seen but discounted. Peripheral events that turn into significant business challenges come from many areas, among them:

- *Technology.* Napster and peer-to-peer file sharing caught the music industry off guard. Polaroid underestimated the importance of digital photography. Microsoft responded late to threats from Netscape, Google, and Linux.
- *Economic/Ecological.* Wal-Mart misread the importance of the early complaints about its human resources practices. The slow response to the tsunami in Southeast Asia is a horrific example of missing an ecological signal.
- *Societal/Political.* Monsanto misread the data regarding societal response in Europe to genetically engineered foods.

*"9/11 is the poster child for missing weak signals."*

— Paul J. H. Schoemaker

DSI research bears out the frequency with which business leaders are caught unaware by peripheral events. DSI surveys reveal that two-thirds of executives have been surprised by at least three high-impact events in the last five years. Further, 97% said their organizations lacked adequate early warning systems.

- **Companies with the ability to read and respond to weak signals at the periphery have a competitive edge.**

Companies that correctly read a peripheral signal have a distinct advantage over the competition. For example, the Atkins diet had been around since the early 1970s but caught fire in the 1990s. Anheuser-Busch read this signal and came out with Michelob-Ultra, a low-carb light beer, early in the low-carb frenzy. Meanwhile, Coors was late in detecting this signal and bringing its Aspen Edge offering to market.

Companies that are effective at detecting weak signals from the periphery are very good not only at reading their "focal area"—that which they know they need to pay attention to—but also at seeing events outside their focus—emerging technologies, influencers, and political, societal, and economic forces.

There are two dimensions to peripheral vision: (1) the need for it and (2) the strength of an organization's capability. With these dimensions in mind, companies fall into four categories.

1. *Vigilant.* High need/high capability. These organizations know that they are easily impacted by peripheral events and have instituted an organizational culture that values scanning the horizon, identifying threats and opportunities, categorizing them properly, and responding rapidly.
2. *Vulnerable.* High need/low capability. These companies are highly vulnerable to peripheral events and thus have a high need to identify them properly. They are, however, characterized by a poor capacity to identify and respond to such events. (Among eBriefing participants, 53% identified their organizations in this category.)
3. *Neurotic.* Low need/high capability. Such companies have a generally low need to respond to weak signals but deploy significant resources to reading them. Having poor categorization and prioritization, they respond to everything.
4. *Focused.* Low need/low capability. These companies do business in a stable environment. They do not spend much time or effort diagnosing or responding to peripheral threats.

- **Blinders exist that impair peripheral vision.**

Both individuals and organizations have numerous blinders that impair their ability to properly identify and respond to peripheral signals.

#### Individual/Behavioral Blinders

- *Mental filters.* Individuals see what they want to see instead of what actually is happening.
- *Overconfidence.* People lock in on a particular conclusion and are far too confident that their view is correct.

- *Confirmation bias.* Individuals read the data and signals in such a way that confirms a preconceived notion.
- *Dislike of ambiguity and uncertainty.* People prefer black and white and shy away from embracing uncertainty.

### Organizational Blinders

- *Overconfidence/hubris.* Overconfidence hits organizations as well as individuals. In the case of Monsanto, it knew the potential for opposition in Europe but proceeded anyway.
- *Groupthink.* Members of organizations learn to see the world in the same way.
- *Structure and rewards.* Departmental structure and incentives place boundaries on thinking.
- *Processes and tools.* Many meta-processes have a short-term focus that inhibits an organization's willingness to take a longer-term and/or broader view.

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*"No doubt organizations sometimes prevent people from looking broadly because we're specialized and functionalized."*

– Paul J. H. Schoemaker

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- **With effort, a company can remove the blinders that make it vulnerable to peripheral events.**

Inquisitive organizations do not have blinders. These companies are characterized by leaders who are curious about factors that lie outside the company's focal point. They embrace a scenario-based, outside-in approach to strategic planning and have robust knowledge management systems. Structures and processes are organizationally aligned to reward and encourage broad views. These companies have cultures that value uncertainty and learning. Most important, leaders must foster an environment that values asking the right questions.

Asking the right questions has three components.

1. *Learning from the past.* Companies must review where, how, and why they have been surprised in the past. They must understand their blind spots. They should look for instructive examples from other industries and identify competitors that are skilled in identifying and responding to peripheral threats.
2. *Examining the present.* This involves taking a hard look at any weak signals they are currently being "rationalized away." Listen to internal and external mavericks and pay attention to what peripheral customers and competitors are thinking.
3. *Looking at the future.* Organizations should envision futures that really upset the applecart, whether those futures are brought about by technological, societal, or economic shocks. This may entail coming up with "unthinkable" scenarios.

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*"In the leading Venezuelan oil company, despite engaging in scenario planning no one could envision Hugo Chavez nationalizing the oil companies and firing all the executives."*

– Paul J. H. Schoemaker

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- **Moving from understanding to action requires that after capturing weak signals, companies classify them properly to determine action steps.**

Once companies have become adept at identifying weak signals, they need to put in place a process that classifies them and prompts appropriate action. Classifications include:

- *Low impact/low probability.* Some peripheral signals will have a negligible impact on the company. Those signals are either disregarded or periodically monitored, with a timetable for revisiting and reevaluating.
- *Important.* These signals have a low- to mid-level probability of becoming problems. Organizations can respond by developing backup plans and/or working to influence the outcome of these peripheral events. Often companies fail to classify signals as important and fail to act.
- *Strategic changes.* These are signals that are extremely important. Such threats from the periphery leave companies with two choices: (1) make a minor strategic change that focuses on creating options for the company and (2) make a major strategic change because threats have gone unnoticed long enough that they have become critical.

- **Achieving peripheral vision results from an ongoing learning process.**

With management support, companies need to develop a systematic, ongoing learning process to detect and act on weak peripheral signals. In this process, individuals and organizations constantly scope and scan peripheral signals, interpret them, determine appropriate action, and then get feedback to adjust their actions.

Organizations can begin expanding their peripheral vision in a number of ways. These include a diagnostic of an organization's needs and capabilities, monitoring of indicators on dashboards, use of pilots, and adoption of knowledge management systems to share information.

#### For more information:

For more information, read the November 2005 *Harvard Business Review* article "Scanning the Periphery" and visit the website and blog at [www.thinkdsi.com](http://www.thinkdsi.com).

## Biographies

**Paul J. H. Schoemaker**, *Chairman and CEO, Decision Strategies International, Inc.*

Dr. Schoemaker is the founder, chairman, and CEO of DSI, a consulting and training company specializing in strategic planning, executive development, and multimedia software. He is also the research director of the Emerging Technology Management Research Program at the Wharton School at the University of Pennsylvania, where he teaches strategy and decision-making. He has given many seminars on decision-making and strategic thinking, has appeared on radio and television, and is a regular speaker in the executive programs at Berkeley, INSEAD, Cornell, UNC, and Wharton. During 1982–1984, Dr. Schoemaker took a sabbatical with the strategy group of Royal Dutch/Shell in London, where he helped pioneer scenario planning. Since then, he has worked with over 100 organizations around the world in both the private and public sectors. Dr. Schoemaker was recently ranked among the most frequently cited academic researchers in the fields of business and economics worldwide ([www.ISIHighlyCited.com](http://www.ISIHighlyCited.com)). His research interests are in organizational strategy, decision theory, managerial decision-making, and emerging technologies. He has written over 70 academic and applied papers and is the author or coauthor of five books, including *Decision Traps*, *Winning Decisions*, and *Profiting from Uncertainty*.

**Scott Snyder**, *President and Chief Operating Officer, Decision Strategies International, Inc.*

Dr. Snyder has over 17 years of experience in business leadership, strategic planning, decision support systems, and technology management for both Fortune 100 companies and start-up ventures. Dr. Snyder also has expertise in telecommunications and information systems including enterprise applications, CRM, analytics, satellite communications, wireless, broadband, and other emerging technologies. Dr. Snyder has held executive positions with several Fortune 500 companies.

**V. Michael Mavaddat**, *Managing Director of Consulting Services, Decision Strategies International, Inc.*

Mr. Mavaddat has worked with clients in developing and implementing strategies and business models for coping with emerging technologies and discontinuous change. He concentrates on developing innovative solutions that draw on leading-edge research and his expertise in scenario-based strategic planning, managing emerging technologies, strategic decision support, and knowledge management systems. Before becoming a consultant, Mr. Mavaddat developed a broad base of experience in business strategy and management at Bristol-Myers Squibb, Western Digital Corporation, and GEC-Plessey Company (UK).

**David Wolter**, *Partner, SDG*

Mr. Wolter has expertise in strategy development, decision analysis, and client capability development in the application of the SDG methodology, particularly through strategy projects in the pharmaceutical, biotechnology, agricultural biotechnology, chemicals, and oil and gas exploration industries. He has led strategy development sessions, commercial and technical assessments, and deterministic and probabilistic analyses of alternative strategies, while training clients to build analytical models to support business decisions.

**Hylke Faber**, *Partner, SDG*

Mr. Faber supports pharmaceutical, biotech, and medical products clients worldwide in strategy development, portfolio management, L&A and M&A strategy, and decision process design. He has led several of the top global pharmaceutical companies through significant transformations of their R&D portfolio management processes. Mr. Faber also has experience in the financial services and oil and gas industries. Before joining SDG, he was a consultant in Towers Perrin's strategy and organization consulting practice.

**Kirk Palmer**, *Senior Engagement Manager, SDG*

Dr. Palmer is experienced in R&D strategy development, market analysis, basic research, and teaching. He helped a major agricultural sciences company evaluate a new technology and devise a global strategy for its commercialization that resulted in the commitment of millions of dollars in research funds to developing products tailored to a few favorable markets. Before joining SDG, Dr. Palmer conducted biophysics research at the University of California at Santa Barbara, helped analyze the market for new Internet software applications at a software company, and analyzed the use of the Chemical Research Database at Smith Kline & French Laboratories.

**Jim Lang**, *President and COO, SDG*

Mr. Lang, a founder of SDG's Boston and Houston offices, specializes in strategy development, capital investment decision-making, and organizational capability development. He has worked in a variety of industries, including energy, telecommunications, high technology, defense, finance, and automotive. His value-creating work has led to new investments by clients in excess of US\$20 billion. Mr. Lang has also conducted hundreds of seminars in strategy development, decision quality, and R&D. Before joining SDG, Mr. Lang held planning and engineering positions at Analog Devices, Data General Corporation, and AT&T.

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