The Path to Discovery

The following article is the second of two contributed by Bob Patterson, IPST’s Knowledge Initiative Director. Together with Jim McNutt and Bob Kinstrey (Jacobs), Patterson was instrumental in arranging the live, interactive Webcast of the session “Beyond Today’s Paper Machine” at Paper Summit in Atlanta earlier this year. This was the first of a series of unique “Thought Leadership” sessions entitled “Rethink and Discovery.”

The CPBIS Rethink and Discovery sessions are designed to provide a forum for the exchange of views on business and technology, to clarify present understandings, and to stimulate an industry-wide process of transformation. The first such session, which took place at the March 2002 Paper Summit, was structured around presentations by two panels of experts and employed new Webcasting technology to engage industry leaders around the globe. The panels focused on business and technological factors that have contributed to the decline in industry performance, providing background information as a basis for the ensuing discussion. Among the issues, factors, and trends they identified were:

The chilling effects of the sagging global economy and the strong dollar on exports

Excess manufacturing capacity in a highly competitive but slowly growing market as a potential contributor to price volatility

Loss of technical expertise – the short- and long-term impacts of corrective measures like downsizing and consolidation

Continued strategic emphasis on short-term business performance and process optimization

Growing risk aversion, as evidenced by dwindling investments in research and commercialization of new processes, technologies, and products

Increasing difficulty in attracting graduates and skilled labor to the industry

Following the informational presentations, each panel became the focus of an open discussion, with simultaneous participation by conference attendees and Webcast participants from around the globe. These discussions provided participants with an opportunity to react to the views expressed by the panel and to identify gaps, barriers, and areas of needed change. The following highlights were among the points that emerged:

Technology – Our 100-year-old technology needs risk investments and “patient” funding to support research and innovation.

A better ROI model is needed for evaluating the commercialization potential of new technologies, processes, and products.

There is a need to move beyond risk-aversion preoccupation with stock performance and to begin rewarding innovators and risk takers.

It is time to “look outside the box” to similar industries, such as the steel industry, and be receptive to the technological and business lessons that can be learned there.

Outsourcing strategically important research to institutions and companies that are themselves threatened jeopardizes the technological health of the enterprise.
**Products and Pricing** – There is a need for improved understanding of global market factors that influence price behavior.

**Industry Structure and Information** – Changes in the structure of the industry demand a changed emphasis on information and communications systems.

The industry would benefit from information and control systems that effectively integrate accounting, production, and process control functions.

Fragmentation of industry associations interferes with effective communications.

There has been a failure of communication between supplier groups and manufacturers on how needed technical solutions can be identified, studied, and resolved.

Downsizing has impacted the industry’s ability to deal effectively with complex issues at the mill operations level.

**Education and Training** – People and their knowledge are the industry’s lifeblood – recruiting, developing, and retaining them are of vital importance.

Investment in work-force training has been sadly lacking.

In the face of a growing need for new talent, the industry’s image has deteriorated and recruiting has been inadequate.

Educators, suppliers, associations, and manufacturers must collaborate to develop a new generation of cooperative education programs, incorporating changes in what is taught, as well as where and how it is taught.

There is a growing need for recognition of training and education as investments that yield good returns.

The panel presentations and the discussions that followed will provide a useful context for upcoming sessions in the *Rethink and Discovery* series. The next one will be combined with the Superintendents’ Round Table session at the International PIMA Conference on June 20. The session will be Webcast live from the Westin St. Francis Hotel in San Francisco.

**Paper and Steel Compare Notes**

CPBIS and IPST recently hosted a two-day visit by Professor Frank Giarratani, Director of the Center for Industry Studies at the University of Pittsburgh and co-Director of the Steel Industry Center at Pitt and Carnegie Mellon University. Dr. Giarratani presented a seminar (also Webcast live on the Internet) entitled “Creative Destruction in a Basic Industry.” His presentation documented the restructuring of the U.S. steel industry in response to a set of problems oddly similar to those confronting the paper industry, including aging technology, excess capacity, sagging exports, growing imports, price erosion, and inadequate investment in work-force skills. This turned out to be a potentially productive exchange. The existence of numerous parallels between the two industries makes it likely that further exploration of their commonalities will provide new insights into the challenges they face. The two Centers have resolved to pursue this in future interactions.

**Matters Arising**

Watch for details and further information on several new developments and events. Among them:

**New Research Projects** – Two new research projects have been approved by the Research Operations Committee for CPBIS funding. Details will be forthcoming in the next issue of this newsletter.

**International Finance Conference** – An international finance forum for the pulp, paper, and allied industries, co-sponsored by CPBIS and PaperCast, will be held in Atlanta during February 2003.

**New CPBIS Management Course** – During the upcoming fall semester, a new CPBIS-sponsored management course with special relevance to the pulp and paper industry will be offered on the Georgia Tech campus.

**Globalization Workshop** – An organizational workshop to explore the possibility of a new Sloan Foundation-sponsored multi-industry initiative on global competition and firm performance will take place at Berkeley in mid-June. The workshop is a follow up to work recently completed by Sloan’s Globalization Network and will be the basis for the development of a proposal to Sloan for further studies. Several of the Industry Centers will be represented. Jim McNutt will represent CPBIS. See [http://paperstudies.org/industry/020614_Paper_Industry_Memo2.pdf](http://paperstudies.org/industry/020614_Paper_Industry_Memo2.pdf)