



# Center for Paper Business and Industry Studies

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## **BoE Holds Inaugural Meeting**

As recently reported (CPBIS Newsletter, June 2005), the CPBIS Board of Executives (BoE) was created to provide the Center with high-level industry strategic guidance and development assistance. The group convened for the first time on Sunday June 26 during the PIMA National Leadership Conference in Nashville. The well-attended BoE meeting opened with a thorough briefing that covered the Center's genesis, structure, mission and achievements. At the same time, it was acknowledged that there are challenges to be met – ensuring sustainability and securing access to industry facilities, people and data, for example. At the conclusion of the meeting, the BoE enthusiastically expressed its commitment to ensuring that CPBIS achieves its goals on an ongoing, sustainable basis. Strategies for realizing this objective will be planned and progress reviewed at meetings to be held at intervals of three to four months. The next BoE meeting will be in September in Atlanta.

## **CPBIS Research Showcased**

Center research will be the subject of several presentations at sessions sponsored by CPBIS at the TAPPI 2005 Engineering, Pulping & Environmental (EPE) Conference in Philadelphia on August 29. One session will be devoted to a detailed exposition of the state of the North American paper industry by CPBIS Executive Director Jim McNutt and Dan Cenatempo, President of Value resolution Group. Using new, up-to-date data from a variety of industry databases, surveys and other sources, the authors have critically examined the competitiveness of the industry, its rate of innovation, and what it needs to do to improve. They introduce their findings as follows:

“The North American Pulp and Paper Industry is not the low-cost producer on most grades, and high-volume grades have significant substitution threats. In addition, a large share of N. A. assets are ageing and approaching the end of their economic lifetime. Participants must learn to thrive under these challenging conditions. The overall industry may not fare well, but individual companies can thrive if they use the current upturn to embrace and leverage innovation. Innovation is imperative to create value. Typical North American pulp and paper companies have shut down their innovative capacity (if it ever existed). As a result, in part, industry performance has been dismal. Investment has spiraled downward and competitiveness has eroded. However, individual suppliers and paper companies can leverage innovation to outperform the industry and create value. To restart the innovation machine, we need to open the culture to allow practices that drive innovation, become more comfortable with different risk/return ratios by adopting an investors' mentality of portfolio management, and become more intellectual through leverage of market-driven inventing and valuation/portfolio management tools.”

Another presentation at the same conference will be authored by CPBIS researcher Michael Farmer. He proposes a novel way for smaller mills to avail themselves of the benefits of black liquor gasification technology. Summarizing his presentation, he says:

“One important pathway to commercialize black liquor gasification so that it can make a noticeable impact on the US Industrial Energy Market is to operate at an adequate scale. Larson et al (2004) suggest a 7 CFA gas turbine operating from a 2200T/day pulping operation. However, most

ageing mills do not operate at that scale and most new mills have new Tomlinson boilers. If older mills face a 'rebuild, shut down or convert' choice, it is arguably unlikely the dual investments in a large scale gasification system and the scaling up of pulping operations will occur jointly. For conversion of the existing infrastructure, one option is to augment the biomass with feedstocks from other local sources, including herbaceous, non-woody material available through the southeast as agricultural residuals. Technical hurdles exist, but are perhaps less constraining than other technical hurdles to commercialization in the shorter time horizon. This work considers the adaptable integrated biorefinery that operates at a large scale for gasification. The model allows initial outlays to remain more modest, for new value streams to emerge from agriculture as well as from forestry and pulp mill adaptations and establishes a platform to add new products (extracted chemicals, fuels, hydrogen cells) as they come on line rather than depend on these breakthroughs to commence commercialization.”

In a third presentation, CPBIS researchers Alan Button, Hiroki Nanko and Dave Hillman will examine the often-made assertion that market pulps are commodities. They introduce it as follows:

“Most people who work with pulp are familiar with the concept of commodity pulps and can probably supply most of the acronyms, like NBSK, NBHK, SBSK, SBHK, DIP, and BCTMP. As many of these labels illustrate, the commodity, Northern Bleached Softwood Kraft (NBSK), for example, is defined by a region, level of bleaching, wood type, and pulping process. Recently, the New York Board of Trade began trading NBSK pulp futures. This commodity is described in the press releases as being of a commercially accepted “prime” grade of a specific moisture content, dirt count and brightness. All of this information suggests that NBSK is a commodity, but is this “commodity pulp” truly a commodity? This presentation delves into this question by looking at the similarities and differences of a cross-section of market NBSK pulps available around the world. The testing results of 16 NBSK market pulps, ranging across the northern hemisphere from Coastal British Columbia to Siberia, are compared to show that major differences exist in many key properties of this commodity pulp. These differences are translated into both likely paper performances outcomes and their economic impact. The major role that fiber morphology plays in these differences and the reason for the trends in the data will be highlighted. The presentation will examine, additionally, the

connection between traditional paper industry pulp analysis and commodity pulp.”

Another showcase of CPBIS research outputs is at <http://www.cpbis.gatech.edu/research/findings/index.htm> where reports, categorized by research theme area, may be viewed in their entirety.

## **2005 TechnoBusiness Forum Promises to Deliver Value**

TechnoBusiness – The term implies a bond between technology and business, an interdependence that drives both to achieve more together than separately. The 2005 TechnoBusiness Forum program is being designed around a theme that embraces open innovation and enhanced platforms for innovation and how they collectively relate to enterprise transformation.

The forum is led and sponsored by IPST and CPBIS at the Georgia Institute of Technology, and is co-sponsored by TAPPI and other organizations (see link at end of this article). Like the exceptionally successful 2004 version, it will be held in Atlanta at the [Georgia Tech Hotel and Conference Center](#). This year, it will be on Sept. 19 and 20.

The content is being developed in close collaboration with the Tennenbaum Institute for Enterprise Effectiveness at Georgia Tech and its director, Dr. Bill Rouse. The Tennenbaum Institute (TI) focuses on developing business practices and organizational cultures that help existing enterprises become more cost-effective and competitive. A portion of the forum will engage the participants in a demonstration of TI's R&D World, an organizational simulation to analyze and improve R&D decision-making.

For more information, or to register, visit <http://www.cpbis.gatech.edu/technobusiness2005>

## **Sloan Offers Dissertation Prize**

The Sloan Industry Studies Program invites submissions for its first annual dissertation competition for 2005. The goal of the award is to reward outstanding doctoral research in the area of industry studies. The deadline for nominations is August 1, 2005. For more information, see <http://www.sloan.org/programs/DissertationPrize.shtml>

## **Upcoming Events**

**CPBIS at the TAPPI EPE Conference.** Philadelphia Marriott, Aug. 29, 2005.

**IPST/CPBIS TechnoBusiness Forum 2005.** Sept. 19-20, Georgia Tech Hotel and Conference Center, Atlanta. ■